Philosophical Topics
VOLUME 34, NUMBERS 1 & 2
SPRING AND FALL 2006

ANALYTIC KANTIANISM

Contents

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Kantian Lessons about Mind, Meaning, and Rationality

Robert Brandom
University of Pittsburgh

Kant revolutionized our thinking about what it is to have a mind. Some of what seem to me to be among the most important lessons he taught us are often not yet sufficiently appreciated, however. I think this is partly because they are often not themes that Kant himself explicitly emphasized. To appreciate these ideas, one must look primarily at what he *does*, rather than at what he *says* about what he is doing. For instance, the revolutionary conceptual transformation Kant focuses on is his "Copernican Revolution": assignment of responsibility for some structural features of knowledge to the nature of the activities of knowing subjects rather than to the nature of the objects known. While this is, of course, an important aspect of his view, as I understand things it is a relatively late-coming move; it occurs significantly downstream from his most radical and important innovations, whose significance owes nothing to this subsequent, optional way of developing them. I want here to sketch in very broad terms some Kantian ideas that it seems most important to me for us to keep in mind in our own thinking about mind, meaning, and rationality. Some of these are very familiar, others less so. And the structural relations I perceive among them seem to me often not perceived.

I. FROM EPISTEMOLOGY TO SEMANTICS

Descartes gives philosophical thought about the mind an *epistemological* turn by using the character of our knowledge of them to distinguish minds from bodies.

Thoughts are understood as distinguished by their epistemic transparency and incorrigibility: their immunity respectively to ignorance and error. The rest of the world is that about which we can be ignorant or in error. Our thoughts can *mis*represent their objects, or represent them incompletely. That is why our knowledge of the merely represented world is fallible and incomplete. But on pain of an infinite regress, those thoughts must themselves be understood as known *im*mediately, by being *had* rather than by being *represented* in their turn—hence their privileged epistemic status. At the most basic level, however, Descartes takes it for granted that the world comes in two flavors: stuff that by nature represents and stuff that is by nature represented. The representing stuff is *intrinsically* "tanquam rem," as if of things. The question he focuses on is what reason we have to think that things are in fact as we represent them to be. The fundamental Cartesian problematic is accordingly to explain the possibility of *knowledge*, that is, of beliefs about how things are outside the mind that are both *true* and *justified*. How can we show that things *really are* as they *appear* to us to be—that is, how can we *justify* that claim?

By contrast, Kant gives philosophical thought about the mind a *semantic* turn by shifting the center of attention from truth and justification to the nature of representation itself. He replaces concern with justifying claims to representational *success* by concern with understanding representational *purport*. His problem is not in the first instance showing that reality is often as it appears, but understanding what it is for things so much as to *appear* to be one way rather than another. Kant wants to know what it is for mental states to *be*, or to *appear to us* to be, to function for us as, *representings* of represented objects. This question is more basic than that addressed by his predecessors. Kant sees that the *epistemological* question has *semantic* presuppositions. The issue for him is not *knowledge*, but *intentionality*.

These projects can each be thought of as responding to the threat of *skepticism*. But the kinds of skepticism addressed are quite different. Descartes worries about responding to the threat of *epistemological* skepticism: things may not in fact be at all as we take them to be. Or at least, we can't *show* that they are. Kant worries about responding to the threat of a deeper and more radical *semantic* skepticism. This is the claim that the very idea of our mental states *purporting* to specify how things are is unintelligible. Kant's most basic transcendental question does not, as his own characterization of his project suggests, concern the condition of the possibility of synthetic knowledge *a priori*, but the conditions of the intelligibility of representational *objectivity*: of states or episodes that answer for their correctness to how it is with the objects they represent.

In asking this question, Kant moves to an issue that is clearly conceptually prior to the one that is central for Descartes. And this move is not of merely historical interest. The principal argument of Sellars's masterwork *Empiricism and the Philosophy of Mind* is that the soft underbelly of both traditional and logical empiricism is their implicit semantics. Broadly Cartesian foundationalism depends on there being a *semantically autonomous* stratum of thought—what is 'given', *both* semantically *and* epistemologically. It is this *semantic* givenness that Sellars ulti-

mately takes issue with. So Sellars offers Kantian semantic arguments against the epistemological Myth of the Given. More specifically, Sellars argues that there cannot be an autonomous language game—one that can be played though no other is—that consists entirely of making non-inferential reports. Unless some claims (endorsements) can be made as the conclusions of *inferences*, none of them can count as *conceptually* contentful, in the sense required for them even potentially to offer *evidence* or *justification* for further conclusions. That is, nothing that cannot serve as the *conclusion* of inference can serve as the *premise* for one. We'll see further along that this, too, is a Kantian theme. But for now I'm not concerned to say why one might think Sellars is *right* on this point (though I think he is)—only that he is developing Kant's response to Descartes.

II. A SEMANTIC RESPONSE TO EPISTEMOLOGICAL SKEPTICISM

So far I've said that Kant points out that before one worries about whether and under what circumstances mental representation is and can be known to be generically *successful* one needs to think hard about what it is for something to be taken or treated as, to have the practical or functional significance of, a *representation* at all. In classical epistemological terms, one must understand what it is to *believe that* things are thus-and-so in order then to try to understand what it is for such a belief to be *true* or *justified*. But Kant in fact commits himself to something much stronger than this. He thinks that any adequate answer to the *semantic* skeptic will in fact be an adequate answer also to the *epistemological* skeptic. Specifying the conditions under which there can be representings at all will settle it that *some*, indeed, *many* of them must be *true*. This is the idea behind his "Refutation of Idealism": once one has seen what is presupposed by representational *purport*, one will see that it includes a substantial degree of representational *success*. Unless we are to a large extent *right* about how things are, we can't make sense even of our being *wrong* in special cases about how things are.

This is an exceptionally bold claim. Once again, it is echoed and developed in our own time. Davidson argues that his interpretivist methodology underwrites a principle of charity, which in turn has the consequence that in order properly to understand creatures as meaning or believing anything at all—as having a mind, or being rational—we must take it that most of their beliefs are *true*. Again, the lesson that Putnam draws from his analysis of the 'thoughts' of brains-in-vats is that *semantic* externalism has the *epistemological* consequence of ruling out radical skepticism: for the brains-in-vats to have thoughts *representing* an external world at all, they must be sufficiently in contact with it to have many *true* beliefs about it.

Looking back from the vantage point these arguments have secured for us, it seems to me that we can see that semantic arguments for this sort of epistemological conclusion must proceed in two stages. First, one must argue that for any conceptual

contents of the sort that represent things as being one way or another to be *entertained*, some others must be *endorsed*. Considering how some things *might* be (as it were, merely *representing* them as being thus-and-so) is not intelligible in total independence of taking other things *actually* to be one way or another. Such a Quinean thought contradicts methodologies (for instance, those of Dretske and Fodor) that depend on a layer-cake picture, according to which *first* one tells an autonomous semantic story about the possession of representational content by certain episodes, and only *then* adds on a story about what it is for some of those representations to play the functional role of being "in the belief box," that is, to be taken to be *correct* or *successful* representations: to be *endorsed*, and not merely *entertained*. Frege notoriously treats merely entertaining a proposition as a speech-or-thought act wholly derivative from and dependent upon actually endorsing one (taking it to be true) in judgment or assertion. For him, merely entertaining a proposition is just endorsing various conditionals in which it appears as antecedent or conditional—and thereby exploring the circumstances under which it would be true, and the consequences that would ensue were it true.

It is not my purpose here to argue for one or the other of these ways of construing things. It *is* my purpose to point out that where the tradition Descartes inaugurated took it for granted that one could make autonomous sense of a mind as merely *entertaining* various fully contentful ideas or representations, and only then consider the "act of the will" that is plumping for or endorsing some of them (what in the contemporary context shows up as "putting representations in the belief box"), Kant's idea of the understanding as in the first instance a function of *judgment*—concepts as intelligible only in terms of their contribution to the activity of judging—offers a radically different approach.

The second step in a semantic argument against epistemological skepticism would then have to be a justification of the claim that we cannot make sense of a whole constellation of representations, some of which are merely entertained and others of which are endorsed, unless we take it that many, perhaps most of the representations endorsed are correct or successful. Thus Davidson claims that local error is intelligibly attributable only against the background of an attribution of a good global grip on how things really are. And Putnam claims in effect that securing reference to natural kinds and individuals requires many true collateral beliefs about them.

An argument along these lines may or may not work. But Kant's idea that one could show on *semantic* grounds that we have sufficient grounds to reject global *epistemological* skepticism about the truth and justification of our beliefs in general is a deep and radically original one. On top of Kant's semantic *transformation* of philosophic problematics, from epistemological to semantic, he builds a semantic explanatory *aspiration*: that resolving the semantic problematic would resolve the epistemological one. At the end of this essay, I say something about how this general aspiration is worked out and applied to the epistemological predicament Kant saw Hume as leaving us in with respect to modal and normative concepts.

III. FORCE AND CONTENT

In making the point about how one might take responses to *semantic* skepticism to bear on *epistemological* skepticism, I invoked a distinction between two sorts of things one could *do* with representations: merely *entertain* them, or further, *endorse* them. But I don't think that in the end this is the most helpful way to consider the thought that underlies Kant's views in this vicinity. I think he sees the importance of distinguishing rather between what Frege calls 'force' and 'content'. This is the distinction between what one is *doing* in endorsing a claim—taking it to be true, whether internally by judging or externally by asserting—on the one hand, and what one thereby endorses, on the other. That is, Kant's practice depends on distinguishing between the two sides of what Sellars called "the notorious 'ing'/'ed' ambiguity": between judgment as the act of judg*ing* and as the content judg*ed*. (A distinction of cardinal importance, for instance, in sorting out Berkeley's confusions, conflations, and equivocations regarding 'experience' in the sense of experienc*ings* and what is experienc*ed*.) The Kant-Frege claim is that to think of merely entertaining a representation as something one can *do* is to fail to appreciate the distinction between judging and what is judged (between force and content).

The tradition Kant inherited understood judging as *predicating*: classifying something particular as being of some general kind, applying a universal concept to a particular one. Although Kant continues to use the traditional language (thereby distracting attention from the radical break he is making from that tradition on this point), he sees that this will not do. His table of the forms of judgments includes *conditional*, *disjunctive*, *negative* and *modal* judgments, none of which kinds is happily assimilated to the predicational-classificatory model. The underlying thought is not made fully explicit until Frege. In the traditional theory, the notion of *predication* is being asked to do two incompatible jobs. On the one hand, it serves as a structural way of building up new judgeable contents. On the other hand, it is thought of as a kind of doing that has the significance of endorsing such contents. The collision between these two senses in which predication is an 'operation' is clearest when one thinks about judgeable contents appearing as unasserted (unendorsed) components of more complex sentences (judgments). The conditional is a paradigm. When I assert "If *Pa* then *Pb*," I have *not* asserted *Pa*. Have I predicated *P* of *a*? If so, then predication does not amount to endorsement: predicating is not judging. If not, then it looks as though there is an equivocation when I detach from the conditional, reasoning:

> If *Pa* then *Pb*
>
> *Pa*
>
> So: *Pb*

For the second premise *is* a predication, and the antecedent of the first premise is *not* a predication.

Geach picks up this Kant-Frege point, using it in his masterful gem-like essay "Ascriptivism" to argue against emotivist semantic analyses of terms of moral evaluation. His target is theories that understand the normative significance of terms such as 'good' not as part of the *content* of what is said about an act, not as specifying a characteristic that is being attributed, but rather as marking the *force* of the speech act. Calling something good is thought of as *doing* something distinctive: commending. Geach first asks what the limits of this ploy are. He points to the archaic English verb "to macarize," meaning to characterize someone as happy. Does the possibility of understanding calling someone happy as macarizing her mean that happiness is not a property being invoked in specifying the content of the claim that someone is happy, because in saying that we are really *doing* something else, performing the special speech act of macarizing? He then suggests the embedding test: look to see if an expression can be used to construct a judgeable content that is *not* directly used to perform a speech act, paradigmatically in the antecedent of a conditional. Because imperatival force *is* grammatically marked, we cannot say:

> "If shut the door, then . . . ."

But we *can* say things like "If he is happy, then I am glad," and "If that is a good thing to do, then you have reason to do it." In the first of these, I have *not* macarized anyone, and in the second, I have not commended any action. So the terms 'good' and 'happy' contribute to the specification of content and are not to be understood as mere force indicators.

Worrying about compound forms of judgment containing unendorsed judgeable contents as components required Kant to distinguish the operations by which such contents are constructed from the activity of endorsing the results of those operations.

IV. NORMATIVITY AND FORCE

For this reason, Kant could not take over the traditional classificatory theory of consciousness, which depends on understanding judging as predicating. But what can go in its place? Here is perhaps Kant's deepest and most original idea, the axis around which I see all of his thought as revolving. What distinguishes judging and intentional doing from the activities of non-sapient creatures is not that they involve some special sort of mental processes, but that they are things knowers and agents are in a distinctive way *responsible* for. Judging and acting involve *commitments*. They are *endorsements*, exercises of *authority*. *Responsibility, commitment, endorsement, authority*—these are all *normative* notions. Judgments and actions make knowers and agents liable to characteristic kinds of *normative* assessment. Kant's most basic idea is that minded creatures are to be distinguished from un-minded ones not by a

matter-of-fact ontological distinction (the presence of mind-stuff), but by a normative *de*ontological one. This is his *normative characterization* of the mental.

Drawing on a jurisprudential tradition that includes Grotius, Pufendorf, and Crusius, Kant talks about norms in the form of *rules*. Judging and acting, endorsing claims and maxims, committing ourselves as to what is or shall be true, is binding ourselves by norms—making ourselves subject to assessment according to rules that articulate the *contents* of those commitments. Those norms, those rules, he calls 'concepts'. In a strict sense, all a Kantian subject can do *is* apply concepts, either theoretically, in judging, or practically, in acting. Discursive, that is to say, concept-mongering creatures, are normative creatures—creatures who live, and move, and have their being in a normative space.

It follows that the most urgent philosophical task is to understand the nature of this normativity, the bindingness or validity (Verbindlichkeit, Gültigkeit) of conceptual norms. For Descartes, the question was how to think about our grip on our concepts, thoughts, or ideas (Is it clear? Is it distinct?). For Kant the question is rather how to understand their grip on us: the conditions of the intelligibility of our being bound by conceptual norms.

V. PRAGMATISM ABOUT THE RELATIONS BETWEEN FORCE AND CONTENT

This master idea has some of Kant's most characteristic innovations as relatively immediate consequences. The logical tradition that understood judging as predicating did so as part of an order of semantic explanation that starts with concepts or terms, particular and general, advances on that basis to an understanding of judgments (judgeables) as applications of general to particular terms, and builds on that basis an account of inferences or consequences, construed syllogistically in terms of the sort of predication or classification exhibited by the judgments that appear as premises and conclusions. In a radical break with this tradition, Kant takes the whole judgment to be the conceptually and explanatorily basic unit at once of meaning, cognition, awareness, and experience. Concepts and their contents are to be understood only in terms of the contribution they make to judgments: concepts are functions of judgment. Kant adopts this semantic order of explanation because judgments are the minimal units of *responsibility*—the smallest semantic items that can express *commitments*. The semantic primacy of the propositional is a consequence of the central role he accords to the *normative* significance of our conceptually articulated doings. In Frege this thought shows up as the claim that judgeable contents are the smallest units to which pragmatic force—paradigmatically, assertional force—can attach. In the later Wittgenstein, it shows up as the claim that sentences are the smallest linguistic units with which one can make a move in the language game.

In conditioning the semantic account of content on the pragmatic account of force—the way the story about what is endors*ed* is shaped by the story about what endors*ing* is—Kant exhibits a kind of methodological *pragmatism*. In this sense, it consists not in the explanatory privileging of *practical* discursive activity over *theoretical* discursive activity, but in the explanatory privileging of *force* over *content*, within *both* the theoretical and the practical domains. Kant's idea is that his *normative characterization* of mental *activity*—understanding judging and acting as *endorsing*, taking responsibility for, committing oneself to some content—is the place to start in understanding and explaining the nature of the representational, object-presenting judgeable *contents* of those judgings. This explanatory strategy is Kant's *pragmatic turn*.

It is this order of explanation that is responsible for the most general features of Kant's account of the form of judgment. The subjective form of judgment is the "I think" that can accompany all our judgings, and so, in its pure formality, is the emptiest of all representations. Thought of in terms of the normative pragmatics of judgment, it is the mark of *who* is responsible for the judgment. (A corresponding point applies to the endorsement of practical maxims.) The transcendental unity of apperception is 'transcendental' because the sorting of endorsements into co-responsibility classes is a basic condition of the normative significance of commitments. Committing myself to the animal being a fox, or to driving you to the airport tomorrow morning, normatively preclude *me* from committing myself to its being a rabbit, or to *my* sleeping in tomorrow, but they do not in the same way constrain the commitments others might undertake.

The objective form of judgment is "the object = X" to which judgments always, by their very form as judgments, make implicit reference. Thought of in terms of the normative pragmatics of judgment, it is the mark of what one has made oneself responsible *to* by making a judgment. It expresses the objectivity of judgments, in the sense of their having intentional objects: what they purport to represent. The understanding of intentional directedness of judgments—the fact that they are *about* something—is normative. What the judgment is about is the object that determines the *correctness* of the commitment one has undertaken by endorsing it. (On the practical side, it is normative assessments of the *success* of an action for which the object to which one has made oneself responsible by endorsing a maxim must be addressed.) In endorsing a judgment one has made oneself liable to distinctive kinds of normative assessment. What one is thinking and talking *about* is what plays a special role, exercises a special sort of *authority* in such assessments. Representing something, talking *about* or thinking *of* it, is acknowledging its semantic *authority* over the correctness of the commitments one is making in judging. Representational purport is a normative phenomenon. Representational content is to be understood in terms of it.

VI. REASONS AND CONTENT

Intentionality—semantic contentfulness—comes in two flavors: 'of'-intentionality and 'that'-intentionality. The first, or *representational* dimension, is semantic directedness at objects: what one is thinking *of* or talking *about*. The second, or *expressive* dimension, concerns the *content* of our thought and talk: what one is thinking or saying (about what one is thinking or talking about). So one can think *of* or *about* foxes, *that* they are nocturnal omnivores. What falls within the scope of the 'of' in such a specification is a term, while what follows the 'that' in such phrases as "I think (or John thinks) *that* foxes are nocturnal omnivores," is a declarative sentence. The pre-Kantian early modern philosophical tradition took it for granted that one ought first to offer an independent account of representational, 'of'-intentionality, of what it is to represent something, and only then, on that basis to explain expressive, 'that'-intentionality, what it is to judge or claim *that* things are thus-and-so. It is part and parcel of Kant's semantic revolution to reverse that order of explanation.

That is to say that just as he needs a new and different idea about what one is doing in judging, on the pragmatic side of force, so he needs a new and different idea about what that force attaches to or is invested in, on the semantic side of content. His thought that judging is taking responsibility, committing oneself, requires a corresponding characterization of what one thereby becomes responsible *for*, commits oneself *to*. The contents of judgments are articulated by *concepts*. The conceptual faculty, the understanding, is the faculty of judgment. Concepts articulate the contents of judgments by determining what one would make oneself responsible for, what one would be committing oneself to, were one to endorse those contents.

I think that at this point Kant wheels in a Leibnizian idea: concepts are in the first instance rules that express what is a *reason* for what. The concepts being applied determine what *follows* from a given claim(able), hence what (else) one would have committed oneself to or made oneself responsible for by endorsing it. They determine what counts as rational *evidence for* or *justification of* a claim(able) content, hence would count as a *reason for* endorsing it. An essential element of what one is responsible for in endorsing a claim or a maxim is having *reasons* for doing so. That is part of the responsibility that goes with investing one's authority in the claim or maxim. Norms must have content, and the concepts that articulate those contents are rules specifying what is a reason for what. As *normative* creatures, we are *rational* creatures—not in the sense that we always or even generally do what we ought or have good reasons for doing what we do, but in the sense that we are always liable to normative assessment concerning our reasons for doing what we do, or thinking as we do. However *sensitive* we are in fact to the normative force of reasons (that peculiar force that so fascinated and puzzled the ancient Greek philosophers) on any particular occasion, we are the kind of creatures we are—knowers and agents, creatures whose world is structured by the commitments we undertake—only

because we are always liable to normative assessments of our *reasons*. *Discursive* creatures are those bound by *conceptual*, that is to say, *inferentially* articulated norms. It is at this level that Kant applies the lessons he learned from his *rationalist* predecessors.

To complete the semantic story, at this point an account is needed of the relation between the two kinds of intentionality: representational and expressive. That is, Kant must explain the contribution that the objects we become responsible *to* in judgment make to what we thereby become responsible *for*. This is the task to which he devotes the bulk of his efforts in the Transcendental Analytic and the Transcendental Aesthetic. It is in the service of this project that he introduces the faculty of sensuous intuition, the faculty by which particular objects are understood to be empirically given to us. His story about how to understand sensuous receptivity in terms of its role in or contribution to the contents of the concepts applied in empirical judgment (and hence, experience) is intricate, instructive, and fascinating. I'm not going to say anything about it here, for two reasons. First, a fundamental structural element of his story depends on lining up as essential dimensions of the intuition/concept distinction what I take to be three quite different (indeed, orthogonal) distinctions—that between receptivity and spontaneity, that between singular terms and predicates, and that between unrepeatable and repeatable representations (tokens and types). (It is startling to see the thinker who marked so carefully the distinction between representations of relations and relations of representations run together representations of particularity and particularity of representations.) In order to extract the important insights that are in play in his discussion, I think one must divide through by this mistaken assimilation. And that is no easy or straightforward task. More generally, however, my concern in this essay is to emphasize the radical and revolutionary conceptual shifts that Kant makes as part of the stage-setting for his assault on the problem he puts in the foreground of his text—elements that are in danger of remaining unnoticed in the background, but which may in fact constitute his best claim to contemporary philosophical attention and admiration.

Be that as it may, it is at this subsidiary explanatory level that I see Kant applying —for better or for worse[1]—the lessons he learned from his *empiricist* predecessors. The semantic explanatory strategy of understanding and explaining representational 'of'-intentional content in terms of expressive 'that'-intentional content is Kant's *propositional* turn in semantics. I see it as a consequence of his normative and pragmatic turns. In terms of later developments, we can see it as a question of the relative explanatory priority of the notions of the sense *expressed* by a claim and the object *represented* by a singular term. With the wisdom of hindsight vouchsafed us by Frege's analysis (still opaque to Russell), we can see that two issues still remain to be disentangled here: the distinction between the content associated with declarative sentences and that associated with singular terms, and the distinction between sense and reference. Still, in this area Kant has once again not only made a crucial distinction, but on principled grounds endorsed a bold, unprecedented, and promising order of explanation.

VII. FREEDOM

Against the background of this set of ideas about normativity and rationality—which is to say his new ways of understanding pragmatic force and semantic content, and their relations to one another—Kant introduces a radically novel conception of *freedom*. Before Kant, freedom had traditionally been understood in *negative* terms: as freedom *from* some kind of constraint. He revolutionized our thought by introducing the idea of *positive* freedom: freedom *to* do something. Positive freedom is a kind of ability or practical capacity. Even if I am not tied up, threatened, or otherwise restrained from playing the Minute Waltz, and hence am in the negative sense entirely free to do so, I am nonetheless not free to play it in the positive sense if I don't have a piano available, or do not know how to play the one that is available.

Kant's specific conception of positive freedom is normative. Being free is being able to adopt normative statuses, paradigmatically, to commit oneself, to undertake responsibilities. It is the capacity to bind oneself by conceptual norms, in judgment and action. This is exercising a certain kind of inferentially articulated authority—a kind that comes with a correlative rational responsibility to have reasons for one's endorsements. To use an example suggested by Kant's metaphor in "What is Enlightenment?" consider what happens when young people achieve their legal majority. Suddenly they can enter into contracts, and so legally bind themselves. Hence they can do things such as borrow money, start businesses, and take out mortgages. This change of normative status involves a huge increase in positive freedom. The difference between discursive creatures and non-discursive ones is likewise to be understood in terms of the sort of normative positive *freedom* exhibited by the concept-users. On this account, being free is not only *compatible* with constraint by norms, it *consists* in constraint by norms. Since the norms are *conceptual* norms, their content is articulated by *reasons*. Positive normative freedom is the capacity to act for reasons, not in a causal sense, but in the normative sense of the ability to bind oneself by norms that make one liable to assessment as to one's reasons.

This constellation of ideas about normativity, reason, and freedom is, I think, what Heidegger means when he talks about "the dignity and spiritual greatness of German Idealism."

VIII. AUTONOMY AND NORMATIVITY

One of the permanent intellectual achievements and great philosophical legacies of the Enlightenment was the development of secular conceptions of legal, political, and moral normativity. In the place of traditional appeals to authority derived from divine commands, thought of as ontologically based upon the status of the heavenly Lord as creator of those he commands, Enlightenment philosophers conceived of kinds of responsibility and authority (commitment and entitlement) that derived

from the practical attitudes of human beings. Thus for instance in social contract theories of political obligation, normative statuses are thought of as instituted by the intent of individuals to bind themselves, on the model of promising or entering into a contract. Political authority is understood as ultimately derived from its (perhaps only implicit) *acknowledgment* by those over whom it is exercised. Following Rousseau, Kant radicalizes this line of thought, developing on its basis a new criterion of demarcation for the normative, in terms of *autonomy*. This is the idea that we are genuinely normatively constrained only by rules we constrain *ourselves* by, that we adopt and acknowledge *as* binding on us. The difference between non-normative *compulsion* and normative *authority* is that we are genuinely normatively responsible only to what we acknowledge as authoritative. In the end, we can only bind ourselves, in the sense that we are only bound by the results of exercises of our freedom: self-bindings, commitments we have undertaken.

The acknowledgment of authority may be merely implicit, as when Kant argues that in acknowledging others as concept-users we are implicitly also acknowledging a commitment not to treat their concept-using activities as mere means to our own ends. That is, there can be background commitments that are part of the implicit structure of rationality and normativity as such. But even in these cases, the source of our normative *statuses* is understood to lie in our normative *attitudes*. Merely natural creatures are bound only by rules in the form of laws whose bindingness is not at all conditioned by their acknowledgment of those rules as binding on them. Normatively free, rational creatures are also bound by norms, which is to say by rules that are binding only insofar as they are acknowledged as binding by those creatures. As Kant says, we are bound not just by rules, but by *conceptions* of rules.

IX. THE FORCE AND CONTENT OF CONCEPTUAL NORMS

It is important to notice that this picture requires the strict conceptual separation of the *content* of norms from their normative *force*. The Kant-Rousseau autonomy understanding of the nature of the force or bindingness of norms is that it is always self-binding. Only we ourselves can *normatively* bind ourselves. It is in the end up to us what we are committed to and responsible for (though acknowledging *any* conceptual commitments may involve further implicit rationality- and intentionality-structural commitments). If not only the normative force, but also the contents of those commitments are *also* up to us, then, to paraphrase Wittgenstein, "whatever seems right to me is right" and talk of what is right or wrong can get no intelligible grip: no norm has been brought to bear, no commitment undertaken. Put another way, autonomy, binding oneself by a norm, rule, or law, has two components, corresponding to 'autos' and 'nomos'. One must bind *oneself*, but one must also *bind* oneself. If not only *that* one is bound by a certain norm, but also *what* that norm involves—what is correct or incorrect according to it—is up to the one

endorsing it, the notion that one is *bound*, that a distinction has been put in place between what is correct and incorrect according to that norm goes missing. The attitude-dependence of normative *force*, which is what the autonomy thesis asserts, is intelligible only in a context in which the boundaries of the *content*—what I acknowledge as constraining me and by that constraint *make* into a normative constraint on me in the sense of opening myself up to normative assessments according to it—are *not* in the same way attitude dependent. That is a condition of making the notion of normative *constraint* intelligible.

Kant secures this necessary division of labor by appeal to *concepts*, as rules that determine both what is a reason for what and what falls under them. His picture of empirical activity as consisting in the application of concepts—of judging and acting as consisting in the endorsement of propositions and maxims—strictly separates the contents endorsed from the acts of endorsing them. The latter is our responsibility, the former is not. This does not require that the constitution of conceptual contents be wholly independent of our activity. Kant in fact sees "judgments of reflection" as playing a crucial role in it. It requires only that each empirical ("determinate") judgment be made in a context in which already determinately contentful concepts are available as candidates for application. The judging or acting empirical consciousness always already has available a stable of completely determinate concepts. Its function is to choose among them, picking which ones to invest its authority in by applying to objects, hence which conceptually articulated responsibility to assume, which discursive commitments to undertake. Judging that what I see ahead is a *dog*—applying that concept in perceptual judgment—may initially be successfully integratable into my transcendental unity of apperception, in that it does not contradict any of my other commitments. But subsequent empirical experience may normatively require me to withdraw that characterization and to apply instead the concept *fox*. That is my activity and my responsibility. But what other judgments are compatible with somethings being a dog or a fox is *not* at that point up to me. It is settled by the contents of those concepts, by the particular rules I can choose to apply.

In taking this line, Kant is adopting a characteristic rationalist order of explanation. It starts with the idea that empirical experience presupposes the availability of determinate concepts. For apperception—awareness in the sense required for sapience, awareness that can have *cognitive* significance—is judgment: the application of concepts. Even classification of something particular as of some general kind counts as *awareness* only if the general kind one applies is a *concept*: something whose application can both serve as and stand in need of *reasons* constituted by the application of *other* concepts. When an iron pipe rusts in the rain, it is in some sense classifying its environment as being of a certain general kind, but is in no interesting sense *aware* of it. So one must already have concepts in order to be aware of anything at all.

Kant, of course, understands *apperception*—what the transcendental unity of apperception is a unity of—which is to say judgment, in normative terms of commitments, responsibility, and endorsement. The transcendental *unity* of apperception is a normative unity: judgers as such are obliged to relinquish commitment to

contents that are *incompatible* with their other commitments, or which have such commitments as their consequences. For if two commitments are incompatible, each serves as a reason to give up the other. That normative unity is *transcendental* because reference to *objects*—the representational 'of'-intentionality that Kant is concerned to show is a necessary sub-structure of inferential 'that'-intentionality—is secured in part precisely by 'repelling' incompatible commitments. The judgment that A is a dog is not incompatible with the judgment that B is a fox. The judgment that A is a dog is incompatible with the judgment that A is a fox. Taking a dog-judgment to be incompatible with a fox-judgment is taking them to refer to or represent the *same* object. Taking it that A is a dog does not entail that B is a mammal, but taking it that A is a dog does entail that A is a mammal. Drawing the inference is taking it that the two judgments refer to the same object. This, in a nutshell, is how the normative demand for a *rational* unity of apperception (judgments) makes intelligible representational purport: what it is to take or treat judgments as representing or being about objects. For concepts to perform their function in articulating the transcendental unity of apperception, the inferential and incompatibility relations they stand in to one another must be settled independently of and antecedently to our particular applications of them in judgment.

X. HEGEL AND THE SOCIAL DIVISION OF LABOR

Of course, this is just the point at which the pre-Kantian rationalists notoriously faced the problem of where determinate concepts come from. If they are presupposed by experiential awareness, then it seems that they cannot be thought of as derived from it, for instance by abstraction. Once the normative apperceptive enterprise is up-and-running, further concepts may be produced or refined by various kinds of judgments (for instance, reflective ones), but concepts must always already be available for judgment, and hence apperception, to take place at all. Empirical activity, paradigmatically apperception in the form of judgment, presupposes transcendental activity, which is the rational criticism and rectification of one's commitments, making them into a normatively coherent, unified system. Defining that normative unity requires the availability of concepts with already determinate contents (roles in reasoning). Leibniz's appeal to innateness is not an attractive response to the resulting explanatory demand. And it would not be much improvement to punt the central issue of the institution of conceptual norms from the empirical into the noumenal realm. It is a nice question just how Kant's account deals with this issue.

As I read him, Hegel criticizes Kant on just this point. He sees Kant as having been uncharacteristically and culpably uncritical about the origin and nature of the determinate contentfulness of empirical concepts. Hegel's principal innovation is his idea that in order to follow through on Kant's fundamental insight into the

essentially *normative* character of mind, meaning, and rationality, we need to recognize that *normative* statuses such as authority and responsibility are at base *social* statuses. The Enlightenment tradition was right to see normative statuses as instituted by normative attitudes. There was no such thing as commitments and entitlements, responsibility and authority, before we started practically *taking* or *treating* each other *as* committed and entitled, responsible and authoritative.

Think in this connection about the example appealed to earlier, of the young one who achieves legal majority upon reaching the age of twenty-one. The transformation in positive freedom is vast. But it is not the consequence of some magical *inner* transformation of the youth. It is *wholly* a shift in social status. *All* that changes is that others now *take* the individual to be able to commit himself, *hold* him responsible for what he does, *acknowledge* his authority so to bind himself. A Laplacian demon ominiscient not only about physical occurrences, but also about Cartesian mental episodes, need not be able to discern any difference between what is going on when the subject scratches a signature on a document one day before and one day after his twenty-first birthday, so long as it confines its attention to what is going on under his skin and between his ears. There is indeed a difference of immense significance—but it takes place *outside* the individual. (Of course this social practice gains its point from the thought that older individuals are in general more likely to know what they are doing, what commitments and responsibilities they are undertaking, what they are authorizing, than younger ones are. But no sensible person thinks that every twenty-two-year-old understands these things better than any twenty-year-old.)

On this Hegelian social line, there is something importantly right about the Kant-Rousseau demarcation of the normative in terms of autonomy. We should think of each of us as bound only by the commitments we ourselves have undertaken (explicitly or implicitly). But that autonomy claim about normative *force*—that one is genuinely normatively bound only by what one has bound oneself by, commitments one has oneself endorsed—is intelligible in principle only against the background of a *social* division of labor concerning the relation between normative *force* and conceptual *content*. Here Kant's methodological individualism critically impoverishes his explanatory resources. It is an absolutely essential part of Hegel's story that we hold *each other* responsible, acknowledge *each other*'s authority. Self-regarding practical normative attitudes cannot by themselves underwrite conceptual contents that swing sufficiently free of a knower's or agent's attitudes to count as genuinely normatively *constraining* her—as articulating determinate commitments and responsibilities.

Hegel's term for the normatively articulated realm of discursive activity (Kant's "realm of freedom") is 'Geist': spirit. At its core is *language*: "Language is the Dasein of Geist," Hegel says. That is where concepts (which for Hegel, as for Kant, is to say, norms) have their actual, public existence. (Cf. Sellars: "Grasp of a concept is mastery of the use of a word.") Here is how I think the social division of conceptual labor works on his picture. It is up to me which counter in the game I play, which

move I make. But is *not* then up to me what the significance of that counter is—what other moves it precludes or makes necessary. It is up to me what concept I apply in a particular judgment—whether I claim that the coin is made of copper or silver, for instance. But if I claim that it is copper, it is *not* then up to me what move I have made, what else I have committed myself to by using that term. So, for instance, I have thereby committed myself to the coin melting at 1084° C, but not at 1083° C, and to its having a density of 8920 kg/m^3, in the sense that if those claims aren't true, neither is the one I made. And I have made a claim that is incompatible with saying that the coin is an electrical insulator. I can bind myself by these determinate conceptual norms because they are always already there in the always already up-and-running communal linguistic practices into which I enter as a young one. An essential part of what maintains them is the attitudes of others—in this case, of the metallurgical experts who would hold me responsible for those commitments on the basis of my performance, if the issue arose. Of course in this way the issue of the ultimate origins of concepts is only displaced, from the individual mind to the whole linguistic community—from the relatively recent to the relatively distant past. I think in fact there is a convincing story to be told about what it is for the normative "light to dawn slowly over the whole" among our hominid ancestors, but I'm not going to follow out this particular argumentative thread any further here.

XI. THE LINGUISTIC MODEL OF POSITIVE FREEDOM AS CONSTRAINT BY CONCEPTUAL NORMS

Instead, I want to say something about how Hegel's social, linguistic development of Kant's fundamental insight into the essentially normative character of our mindedness provides a model of positive freedom. One of the central issues of classical political philosophy is how to reconcile individual freedom with constraint by social, communal, or political norms. Kant's vision of us as rational creatures opens up space for an understanding of a kind of freedom that consists in being able to constrain ourselves by norms—indeed, by norms that are rational, in the sense that they are conceptual norms: norms articulating what is a reason for what. The normative conception of positive freedom makes possible a distinctive kind of answer to the question of how the loss of individual negative freedom—freedom from constraint—inevitably involved in being subject to institutional norms could be *rationally justified*. Even if it can be justified from the point of view of the collective—which cannot exist without such constraints on individual behavior—it is important that it can also be understood as rationally justifiable from the point of view of the individual herself. In the Kantian context, such a justification could in principle consist in the corresponding increase in positive freedom.

The positive expressive freedom, the freedom *to* do something, that is obtainable only by constraining oneself by the conceptual norms implicit in *discursive*

social practices, speaking a public language, is a central case where such a justification evidently is available. Speaking a particular language requires complying with a daunting variety of norms, rules, and standards. The result of failure to comply with enough of them is unintelligibility. This fact can fade so far into the background as to be well-nigh invisible for our home languages, but it is an obtrusive, unpleasant, and unavoidable feature of working in a language in which one is *not* at home. The same phenomenon is manifest in texts that intentionally violate even a relatively small number of central grammatical and semantic norms, such as Gertrude Stein's prose. But the kind of positive freedom one gets in return for constraining oneself in these multifarious ways is distinctive and remarkable.

The astonishing empirical observation with which Chomsky inaugurated contemporary linguistic theory is that almost every sentence uttered by an adult native speaker is radically *novel*. That is, not only has that speaker never heard or uttered just that sequence of words before, but neither has anyone else—ever. "Have a nice day" may get a lot of play, but any tolerably complex sentence is almost bound to be new.

Quotation aside, it is for instance exceptionally unlikely that anyone else has ever used a sentence chosen at random from the story I've been telling. And this is not a special property of professor-speak. Surveys of large corpora of actual utterances (collected and collated by indefatigable graduate students) have repeatedly confirmed this empirically. And it can be demonstrated on more fundamental grounds by looking at the number of sentences of, say, thirty words or less that a relatively simple grammar can construct using the extremely minimal 5,000-word vocabulary of Basic English. There hasn't been time in human history for us to have used a substantial proportion of those sentences, even if every human there had ever been always spoke English and did nothing but chatter incessantly. Yet I have no trouble producing, and you have no trouble understanding, a sentence that (in spite of its ordinariness) it is quite unlikely anyone has happened to use before, such as:

> We shouldn't leave for the picnic until we're sure that we've packed my old wool blanket, the thermos, and all the sandwiches we made this morning.

This capacity for *radical semantic novelty* fundamentally distinguishes sapient creatures from those who do not engage in linguistic practices. Because of it we can (and do, all the time) make claims, formulate desires, and entertain goals that no one in the history of the world has ever before so much as considered. This massive positive expressive freedom transforms the lives of sentient creatures who become sapient by constraining themselves with linguistic—which is to say conceptual—norms.

So in the conceptual normativity implicit in linguistic practice we have a model of a kind of constraint—loss of negative freedom—that is repaid many times over in a bonanza of positive freedom. Anyone who was in a position to consider the tradeoff rationally would consider it a once-in-a-lifetime bargain. Of course, one need

not be a creature like us. As Sellars says, one always could simply *not speak*—but only at the price of having nothing to say. And non-sapient sentients are hardly in a position to weigh the pros and cons involved. But the fact remains that there *is* an argument that shows that at least *this* sort of normative constraint is rational—that it pays off by opening up a dimension of positive expressive freedom that is a pearl without price, available in no other way. Hegel's idea is that this case provides the model that every other social or political institution that proposes to constrain our negative freedom should be compared to and measured against. The question always is: what new kind of expressive freedom, what new kinds of life possibilities, what new kinds of commitment, responsibility, and authority are made possible by the institution? The strategy is to use an understanding of the basic metaphysical structure of mind, meaning, and rationality as the basis for normative assessment of lives and institutions.

XII. MODALITY AND LAWFULNESS

I want to close by mentioning a topic that initially no doubt seems far-removed indeed from issues of personal autonomy and political freedom: alethic modality. Kant read Hume's practical and theoretical philosophies as raising variants of a single question. On the side of practical reasoning, he asks what our warrant is for moving from descriptions of how things are to prescriptions of how they ought to be. How can we rationally justify the move from 'is' to 'ought'? On the side of theoretical reasoning, he asks what our warrant is for moving from descriptions of what in fact happens to characterizations of what must happen, and what could not happen. How can we rationally justify the move from statements of matter-of-factual regularities to formulations of necessary laws? In Kant's terminology, these are both species of 'necessity': moral and natural necessity, respectively. For him, 'necessary' (notwendig) just means "according to a *rule*." Hume's predicament is that he finds that even his best understanding of *facts* doesn't yield an understanding of *rules* governing those facts, underwriting assessments of which of the things that actually happen (something we can experience) *ought* to happen (are morally necessary), or *must* happen (are naturally necessary).

Kant's response is that Hume's predicament is not a real one, but the product of a confusion. One cannot in fact fully understand the empirical employment of ordinary determinate concepts such as 'cat' without at least implicitly understanding also what is made explicit by the modal concepts that articulate laws. Hume thinks he can understand what it is to say that the cat is on the mat without understanding what it means to say that it is *possible* for the cat to be elsewhere, but *necessary* that it not be larger than the Earth. Kant's claim, put in contemporary terms, is that part of what one is committed to in applying any determinate concept in empirical circumstances is a distinction between counterfactual differences in circumstances that *would* and *would not* affect the truth of the judgment one is mak-

ing. It would still be true that the cat is on the mat if the lighting were subtly different, but it would not be true that the cat is on the mat if the force of gravity were two orders of magnitude stronger than it in fact is. The cat could still be on the mat if the mat had twice the area it does, but not if the floor under it were not rigid—that is, not disposed to resist possible deformations of its shape.

Hume frames his question as an epistemological one, concerning the justification of our claims to know what must happen or what ought to happen based on our experience of how things in fact are. Once again, Kant offers both a semantic diagnosis of the origins of the epistemological predicament that makes this question seem urgent and difficult. And once again, he offers a semantic response that, if successful, defuses the epistemological worry.

Sellars summarizes this Kantian thought in the title of one of his essays: "Concepts as Involving Laws, and Inconceivable Without Them." This slogan is a good place to start in thinking about Kant's point, but in fact Sellars's own view is subtly but importantly different from Kant's. For Sellars, the laws determining the truth of counterfactuals involving the application of a concept are part of the content of the concept. For Kant, modal concepts make explicit not something implicit in the *content* of determinate concepts, but something implicit in their *empirical use*, in *applying* them to make empirical *judgments*. That is why the pure concepts of the understanding—what he calls 'categories', such as *possibility* and *necessity*—are both to be understood in terms of the forms of judgment (the table of categories derives from the table of judgments) and express synthetic, rather than analytic necessities. From Kant's point of view, a better slogan than Sellars's would be "The *Use* of Concepts in Empirical *Judgments* as Involving Laws and Inconceivable without Them."

A corresponding line of thought is to be mounted on the side of moral or practical necessity. Moral concepts make explicit commitments that are implicit in practical agency, in the exercise of intentional action, itself. Intentional agency is a thoroughly normative phenomenon because it, too, consists in the application of concepts, and applying concepts is undertaking commitments and responsibilities whose *content* is articulated by those concepts. Normative vocabulary makes explicit what is implicit in the practical use of concepts to endorse maxims, ends, and plans.

My point is that Kant's response to Hume's predicament—his account of the nature and expressive role of modal and normative "pure" concepts—is not in fact as removed from his discussion of the nature of freedom as might at first have appeared. Both are rooted in and developments of his normative turn: his fundamental reconstrual of mind, meaning, and rationality in normative terms.

XIII. CONCLUSION

My aim in this essay has been to convey what in my title I call "some Kantian lessons" about what it is to have a mind, to grasp and apply meanings, to be rational.

What I've been doing is not really Kant exegesis. I haven't been concerned to interpret particular bits of his text, so as to catch him expressing the views I've been attributing to him. That is an important and necessary task, and in its absence I can at most claim to have been expounding "Kantian" lessons, not Kant's own theory. My characterization of Kant's largest ideas and their relations to one another deserves to be controversial and is arguably tendentious. But in thinking about Kant's grandest philosophical contributions there is a standing danger of losing sight of the forest by focusing on the trees. The cost of succumbing to that danger is to fail to appreciate why Kant is so important: the conceptual sea-change he ushers in, the radically new constellation of philosophical ideas he puts in play. I think we have only really just begun the process of digesting those ideas. Though the thought sometimes tempts me, I will not in fact claim that Kant tells us nearly everything we need to know about minds, concepts, and their use and contents. But what he does tell us is so deep and significant, and ramifies into and reverberates in so many neighboring theoretical domains, that I think it does deserve to be thought of as the most important distinctively *philosophical* contribution to the multidisciplinary study of mind, meaning, and rationality. I have tried to say something here about why I think Kant is and remains for philosophers what the sea was for Swinburne: the great, gray mother of us all.

NOTE

1. John McDowell insists on the former, while I am inclined to the latter assessment.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Meaning and Aesthetic Judgment in Kant

Eli Friedlander
Tel Aviv University

> For the true critic, the actual judgment is the ultimate step—Something that comes after everything else, never the basis of his activities. In the ideal case, he forgets to pass judgment.
>
> —Walter Benjamin[1]

INTRODUCTION

As one considers the structure of the analytic of the beautiful in Kant's *Critique of Judgment* two features of it are immediately striking. First, Kant formulates its moments by way of negation: Taste estimates an object *apart from any interest*, the beautiful pleases *apart from a concept* universally, it is form of finality in an object *apart from the representation of an end*, and it is that which *apart from a concept*, is cognized as an object of a necessary delight. Second, Kant divides the analytic according to the four headings of the table of the categories (Quality, Quantity, Relation, and Modality). The negatively phrased characterizations, as well as the importation of the table of the categories from the First Critique, might tempt one to conceive the judgment of taste to be modeled on the form of a cognitive judgment, while at the same time lacking some of its central aspects, specifically those involving conceptual recognition.

While it is no doubt crucial to establish the relation of aesthetics to cognition (as well as to morality), the understanding of the judgment of taste as a reduced

cognitive judgment can easily slide into the assumption that there is no dimension of meaning involved in our response to beauty.[2] The pleasure felt in the face of beauty would be identified as a criterion for judging, not by way of its relation to the meaning one would find in the object, but rather, for instance, by realizing the lack of any interest on our part in the object. In particular, the meaning associated with what we call "art criticism" would appear to be superadded to a prior judgment of taste, as a specialized discipline that has no fundamental, that is philosophical, significance, for the appreciation of beauty.[3]

So as to provide an alternative to this direction of interpretation, I aim to argue here that Kant's description of the grammar of taste is compatible with the presence of a thick dimension of meaning in the aesthetic judgment. The recognition that a dimension of expression is involved in the aesthetic judgment might be obscured in part by Kant's language of faculty psychology. Since the play of the faculties must be related to the feeling of pleasure of a perceiving subject on the occasion of a specific encounter with beauty, one is far more tempted, than, say in the case of the application of the categories, to imagine the activity of the faculties as a psychological process, working its way inside, mutely, even pre-consciously. To avoid this picture I will at times attempt to translate Kant's language into a register of more recognizable meaning phenomena. Though I think that my reformulations are faithful to Kant's intention they might at times sound different from the original.

Two more preliminary remarks before engaging Kant's text: First, what I will say here will sound, if at all, more intuitively true of the beauty of art, than of that of nature. That distinction, though central to the argument of the Third Critique is beyond the scope of the present paper. Secondly, since, in another essay, I have focused on Kant's second and fourth moments of the analytic of the beautiful, I will mostly interpret here the remaining first and third moments along the lines I have suggested.[4]

I. PRESENTING THE CAPACITY TO JUDGE

The starting point for Kant's account is the understanding that the judgment of taste does not have the form of ascertaining that the object has certain 'aesthetic' properties. Rather, it is a judgment constituted by a reversal of direction in our relation to the object. This is expressed by Kant's distinction between the determinant and the reflective judgment: "Judgment in general is the faculty of thinking the particular as contained in the universal. If the universal (the rule, principle, or law) is given, then the judgment which subsumes the particular under it *is determinant*. . . . If, however, only the particular is given and the universal has to be found for it, then the judgment is simply *reflective*" (Ak. 5: 179).[5] Judgment leads not just from concept to object, but also from object to concept. The simplicity of this reversal hides a fundamental asymmetry between the two cases. Given a certain concept we know

what to look for in an object in order to assess whether the concept does in fact apply to it. In the case of the reflective judgment, given a particular object, we precisely do not have any such direction. There might be many ways to go, especially if we avoid pre-judging what it is that we judge.

The difference between the determinant judgment in which the object is subsumed under the given concept and the reflective judgment, is suggested by the description of the latter case as one of *finding* a concept for the object. 'Finding' is not a matter of merely providing any concept we might come up with that in fact applies to the object (we could, after all, easily speak of a painting as rectangular, and of a movie as in "black and white"). The very adequacy of the reflective judgment would depend on finding what *feels* as appropriate terms for *that* given thing rather than imposing a concept on it based on our general knowledge of that *kind* of thing (thus ultimately relying on a prior determinant judgment). In the determinant judgment there is no question of the *affinity* of our judgment to the object. In a reflective judgment, to put it somewhat loosely, what one says must be true *of* the object, so as to be true *to* it.

In a determinant judgment we are provided an end point to judging in ascertaining the truth of the determination of the object by way of the given concept. Truth is the goal of judgment. But we can further say that the choice of concepts through which we seek to determine the object indicates the goals we have in judging that object. They indicate the interests for which we wish to ascertain that the object has such and such property.

Put differently, judgments occur in a horizon of interests. It is those interests that give assertions their direction. Interest, Kant claims, implies a relation to desire. Yet, his own examples, for instance that of the "Iroquois *sachem* who said that nothing in Paris pleased him better than the eating-houses" (Ak. 5: 204) might suggest only the crudest cases of such involvement of desire. An interest in an object exists not only when I want to "eat it," but also when the object plays a role in the pursuit of knowledge, or comes to serve valuable ends in a practical scheme of things. Judgments are, for sure, determinately true or false, independently of our interest. But, to *make* a judgment would assume a motivation, a "what for." And that interest is reflected in the choice of concepts through which we approach the object. The point I want to make then is that interest and our directedness by way of concepts are interrelated.

Insofar as a judgment has an interest, that interest makes the act of judging dependent on something external to itself (think of it as a hypothetical judgment, on the model of a hypothetical imperative). We judge for the sake of something, namely for our desires broadly construed. Yet, in a critique of judgment we consider the faculty of judgment for itself, without its being at the service of other faculties.[6] The aesthetic is the occasion simply to judge. Throughout the analytic of the beautiful Kant is indeed stressing that simplicity of judgment (comparable I take it to the simplicity of a good will):

> "The beautiful is what *simply* pleases" (Ak. 5: 210); "the judgment of taste is *simply* contemplative" (Ak. 5: 209); "*All one wants to know* is whether the *mere* representation of the object is to my liking." (Ak. 5: 205); *"All it (the judgment) does* is to compare etc." (Ak. 5: 204); "the delight [in the agreeable] presupposes, not the *simple* judgment . . . I do not accord it *a simple approval*." (my emphasis)

What is the simplicity of judging? The word 'judgment' can be used to characterize an end result (as when we arrive at a judgment). It can also be used to mean the act of judging. Thinking of judgment as though what is essential to it is reaching a verdict—is the thing beautiful or not—misses what is peculiar to the aesthetic judgment, by reducing the act to an end result. Apart from being a distortion of the phenomenology of taste, it misconceives the relation of the judgment to the activity of the faculties. For the activity of the faculties is not preparatory to making the final assessment, as though what we judge is whether that activity is taking place in us or not. The activity, properly understood, *is* the judging itself.

Lacking both concept and interest, thus lacking a specification of an end, we remain with the way, the medium, or the capacity to judge. An interested judgment would put that capacity to use in a specific way, subservient to the end result, and would thereby precisely hide that capacity itself. In the aesthetic judgment, however, no specific result has to be achieved, but the faculty of judgment has to be exhibited by the activity of judging. Judgment must allow sensing oneself in one's capacity as a judging subject. What Kant is then characterizing is a movement of the mind which makes present to us our very capacities:

> All [judgment] does is to compare the given representation in the Subject with the entire faculty of representations of which the mind is conscious in the feeling of its state. (Ak. 5: 204, my emphasis)

A criterion for the rightness of a judgment that has no end result, no aim apart from judging, thus independently of objective notions of goodness and truth, is provided, Kant tells us, by the subjective element there is to agreement between subject and object, namely *pleasure*. Not only must this pleasure be distinguished from the agreeable effects of sensation, or the satisfaction that comes with achieving an end; following my line of argument, it must be the pleasure in the revelation of the very capacity to judge. Kant speaks of the "feeling which the Subject has of itself and of the manner in which it is affected by the representation" (Ak. 5: 204). Though every pleasure is felt by a subject, it is not necessarily a feeling the subject has of itself.

Now, the term Kant uses synonymously with feeling pleasure or displeasure—'the feeling of life'—leaves room to think of it in terms of an energetic movement, liveliness, whose source would not necessarily be a localized reaction having a particular quality. The animation of the mind in the aesthetic judgment *is*, I want to argue, the feeling the subject has of itself, of its capacity to judge. Such feeling of one's capacity cannot be simply reflexive, as is the model of the Cartesian 'I think'. For one's capacity to judge must be exercised on something to manifest itself. Self-

consciousness in the 'I feel' demands the beautiful thing as that field for the advance of judgment that reflects one's capacity to judge. (I note that this understanding of reflection as the return from the given representation to the faculties of the mind that make it possible is precisely the meaning the term has for Kant in the *Critique of Pure Reason*.)

What I am trying to characterize here is not some inner barely conscious process, but rather a movement of the mind in which expression is given to beauty. Granted, Kant draws from the second moment the definition of beauty according to which it pleases universally, *apart from a concept*. But, this need not mean that no concepts are involved in judging. Only that such concepts should not bring the movement of the mind to an end by determining the thing of beauty as a specific, definite kind of object.

I can try to provisionally sum up by way of the three following claims: First, the movement of the mind attuned to the object *is* the judgment upon it. Second, to show one's appreciation of the object *is* to be involved with it by making sense of it. Third, such continuous involvement is also what the pleasure in the aesthetic judgment comes to. (Indeed, this characterization would correspond precisely to Kant's definition of pleasure as "the consciousness of the causality of a representation in respect of the state of the Subject as one tending to *preserve a continuance* of that state" (Ak. 5: 220).[7]

Consider in the light of the preceding account Kant's claim that the judgment must not rely on an interest in *the real existence* of the object. The point of this emphasis on 'real existence' can be obscured by having too simplistic a model of what an interest comes to. It would be best to approach the matter by asking about our perceptual awareness of beauty (for as was emphasized earlier perception too has an interest manifest in its directedness). In stressing the lack of interest in the real existence of the object, Kant does not preclude perceiving, for, surely an aesthetic judgment requires perception of the object. The point is that what is real cannot be the ground of judgment. The reality of the object in perception is traced to the matter of sensation. Sensation is "the real in perception" (Ak. 5: 148), Kant writes. Thus he argues that a judgment over the mere presence of color cannot be an aesthetic judgment. Color as such would at most be causing an agreeable state in the sensing subject. The following makes clear what the independence from the matter of sensation comes to:

> It is quite plain that in order to say that the object is *beautiful*, and to show that I have taste, everything turns on the meaning which I can give to this representation, and not on any factor which makes me dependent on the real existence of the object. (Ak. 5: 205)

It is by giving meaning that the judgment is independent of the effects of sensation. But even further, I would argue that the same independence is required in relation to any objective property. It cannot be, in itself, the ground for judgment. The aesthetic judgment is taking place in the space of meaning opened by the subject in being responsive to the object. Though such responsiveness implies a devotion to

the details of the experience, opening this space of meaning must be distinguished from ascertaining the actual properties of the object under consideration. To clarify what such a space of meaning comes to, I move now to consider the notion of form developed in the "Third Moment" of the Analytic of the Beautiful.

II. FORM AND POSSIBILITY

As Kant puts it in the title of section 11: "The sole foundation of the judgement of taste is the FORM OF FINALITY of an object (or mode of representing it)" (Ak. 5: 221). Note that form is in an object or in our mode of representing it. I assume that it is in the one just as much as in the other, in the one by way or through the other. Our faculties are engaged by the object in a movement that reveals the form of that object. Remaining content with an assertion about the object would put an end to the advance of judgment. In contrast, the assertion is not the highest unity of language in the aesthetic judgment. This might be the truth in the sense that beauty escapes language. Not because the experience of beauty is mute, but rather because its meaning is not reducible to something said of the object.

Kant sometimes speaks of the activity of the imagination as providing a presentation (see, for example, Ak. 5: 192, 351–52). Presentation suggests that something is laid before us, given to us perspicuously. But 'presentation' need not be restricted to providing a sensible intuition, for it can occur in and through language. If the aesthetic judgment is to be related to a movement of the mind, understood over and above the assertion, then what is presented is the space of meaning opened by that movement.

The presentation of the space in which that movement of meaning takes place is what I think of as the revelation of form. In other words, it is not sufficient to point out that the beautiful engages the mind's faculties and brings them into play. It is further necessary to characterize what it is that is revealed by this play of the faculties. Otherwise the movement risks being merely the private stream of associations of someone in the face of beauty. But conversely, it is important not to objectify form. In particular this notion of form must be contrasted with a customary use of that term in the aesthetic context which associates it with so-called abstract or compositional matters of order, configuration, or structure. For, while these latter are not your ordinary properties of things, they are just as objectively determined. I would even say that by having such a narrowly formalistic understanding of form, one misses Kant's intuition about the reflective judgment. For one would then seek certain aesthetic features of the object. Whereas thinking in terms of the reversal of direction in judgment, leading from object to form, allows, I want to argue, any feature of the object to become involved in the appreciation of its beauty. Form must rather be understood by way of the distinction between possibility and actuality. To present a form independently of the real existence of the object is to

take what is perceived, not as a set of facts, but as opening by way of our involvement with it, its own possibilities of being meaningful.[8]

Consider how this understanding of form is supported by the figures Kant uses to characterize the movement of the mind in the aesthetic judgment. I claimed earlier that the movement of the mind makes manifest the faculty of representation as a whole. A faculty is not presented by a specific state it is in, but rather as a capacity to be in that or another state, that is as a potential. Since the presentation is figured by a movement of the understanding and the imagination, it will be the strengthening of that movement that will indicate a *potential*. Kant indeed speaks of the quickening of the faculties, for potential translates not into inertial but rather into accelerated motion. The potential of our faculties is shown by a quickening of their movement. To follow the figure, Kant speaks of the disposition of the cognitive powers having different proportions relative to the diversity of objects. A definite relation, a specific use of our faculties, would be a particular ratio, so to speak a particular speed of our faculties (d/t). The quickening, the accelerated movement—(d/t^2)—is a constant change of speed, of the ratio of our faculties, in which they are carried beyond any specific act of cognition.[9]

Take further the figure of play: What it adds to the figure of acceleration is, I take it, the necessity of an *expanse* in which that play takes place. Playing involves not only a delimitation of time but often requires a specification of a space, whether a board or a field. To say that a movement has finality is to say that it has potential and that the unfolding of that potential is the revelation of a space of form. The showing of that potential is the subjective side of the revelation of possibilities of meaning of the object.

In other words, the movement of the mind is opening a space of meaning in and through what is beautiful. 'Opening' is to be distinguished from mere openness. That latter state easily slides into passivity. The opening of meaning does not occur by just waiting for something to happen in a fleeting indeterminate attention. Indeed, Kant speaks not merely of perceiving beauty but of *contemplating* it. Contemplation, like reflection, is not without its thoughtfulness. This difference between an active and a passive state is further reflected in Kant's distinction between 'dwelling on' beauty and the passive 'lingering on' charms. Think of 'dwelling' as being present in a place, and then of the sense of that place as available through the movement in it. We must bring the mind into an energetic movement to produce that opening of meaning presented through the movement.

Now Kant speaks not just of play, but of the *free* play of our faculties. I would like to interpret this notion of freedom and its relevance to the understanding of form by considering Kant's distinction between free and dependent beauty. There is, I think, a common misinterpretation of that distinction, according to which only one side of it is in fact truly beautiful, that of the free beauties in whose "estimation . . . (according to mere form)," Kant writes, "we have the pure judgment of taste" (Ak. 5: 129). Dependent beauty would really be tainted by the presence of concepts. It would be a lesser kind of beauty. But it is also possible to read the division to be

internal to beauty, so that it is beauty *itself* that can be free or dependent. It is not as if that which is properly beautiful in dependent beauties is their free aspect, that emerges only when we completely ignore what they are. What Kant calls the ideal of beauty, for instance, is the specific *beauty* of a human being. And it is not a lesser kind of beauty for that reason (How could it be, for, after all, it is the ideal, the standard of taste . . .).[10]

In cases of dependent beauty, where a concept of the object being estimated is involved in our judgment, we nevertheless do not produce a *determinant* judgment concerning that object, nor is that concept the ultimate ground of our judgment. As is clear from Kant's examples, we delimit in certain ways the expanse of reflection opened to the imagination and the understanding: "Much might be added to a building that would immediately please the eye," Kant writes, "were it not intended for a church. A figure might be beautified with all manners of flourishes and light but regular lines, as is done by the New Zealanders with their tattooing, were we dealing with anything but the figure of a human being" (Ak. 5: 230). But, this discipline of the imagination brought about by taking into account what the object is, not only leaves room for freedom but also is essential to it. The restrictions, such as for instance the conventions of a genre, enable the presentation of *a particular form*. They give, one might say, the dimensions to be free with. Put differently: We are not starting with beauty as such, at large, and by restricting it with a concept, lose some of its intensity in favor of satisfying our wish for intellectual accuracy. Rather we have the freedom adequate to reflection on *that* kind of thing, to the estimation of *its* beauty. A free beauty, such as, for instance, a flowing pattern, would not be restricted by any concept, but the complete freedom we would have to develop and follow it would be rather poor, manifest probably in imagining certain figures in space. Conversely, we might be inspired to reflection by the specific proportions of a building precisely *because* it is a church. And a thick characterization of human action that brings into play its different dimensions affords a *freedom* of reflection that is not available as one looks at a flower or a bird. To assume that a space of reflection can be opened by certain concepts characterizing an object does not mean that they completely determine the object. Kant knew of this inner connection between freedom and restriction in the moral context. Why should we deny him the same understanding in the aesthetic field as well?

Still one might have the worry that whenever we have a concept of the thing judged, the delight would not arise primarily from the free play of our faculties but rather from the approximation of the representation to our intellectual understanding of the *perfection* of that kind of thing. But Kant does stress that in the case of dependent beauty "strictly speaking, perfection neither gains by beauty, nor beauty by perfection." The objective finality does not take over and determine our sense of the adequacy of the representation at the expense of the subjective finality of our faculties, as though overshadowing the free pleasure we might find in it. Any hierarchy or dependence of beauty on perfection is avoided as Kant conceives of "a gain to the *entire faculty* of our representative power when harmony prevails

between both states of mind" (Ak. 5: 231). Just as in the use of the term 'harmony' to characterize the relation of the imagination and the understanding generally, here, too, it marks the fact that no side is taking over. Moreover, 'harmony' implies that their inner attunement is manifest in *feeling* rather than by way of an overarching concept. In the judgment upon dependent beauty, the initial opposition of objective and subjective finality is raised and internalized into the movement of meaning of the aesthetic judgment itself. The resulting harmony not only is entirely within the scope of beauty, it is one of its most important features. By the end of the *Critique of Aesthetic Judgment*, Kant characterizes taste as "in the ultimate analysis, a critical faculty that judges of the rendering of moral ideas in terms of sense (Ak. 5: 356)." This extension, internal to the nature of beauty, would be unthinkable were we to retain the narrow equation of taste with the judging of free beauties.

III. UNIVERSAL COMMUNICABILITY

The relation established between the aesthetic of judgment and meaning allows us to shed light on one of the more problematic and puzzling issues in the "Analytic of the Beautiful," the primacy of communicability to pleasure. As Kant puts it in section 9, which he calls "the key to the critique of taste": "it is the universal capacity for being communicated incident to the mental state in the given representation which, as the subjective condition of the judgment of taste, must be fundamental, with the pleasure in the object as its consequent"(Ak. 5:217).

In interpreting this passage, it is important not to confuse a claim to universal communicability with the assumption of a common state of mind to all that would properly judge beauty. What I have called the minimalist interpretation of the judgment of taste can hardly argue for more than the latter; that is, for the existence of such a common or shareable state, remaining when all conceptual determination as well as all specificity of the individual's relation to the object is put aside. It thus takes universal communicability to be tantamount to the possibility of everyone being, in principle in that state in the face of beauty. But I take it that there is a reason Kant speaks in section 9 of communicability, of the possibility of imparting something to others. That something is communicable is made evident, by its *being put into words*. The interpretation I have offered takes the aesthetic judgment to be giving expression to beauty. It is, ipso facto, making itself available to the response of others. Expression allows beauty to be in common, though actual communication is not assumed to be internal to the aesthetic judgment. Indeed the pleasure in *communicating* to others would evince an interest in sociability and cannot be the ground of the aesthetic judgment. The pleasure must be in the emergence of meaning itself thus in *communicability* rather than in the satisfaction of our interest in actual communication. Communicability would then be logically prior to the pleasure, for it is the very expression, the very putting into words, that is pleasurable. As I

have argued, that pleasure is not understood as a specific *quality* of experience, but is identified with the enhanced activity of the mind, the furthering of meaning that shows the mind's potential in giving expression to beauty.

But why should such expression be thought to be *universally* valid? What would the agreement consist in? Indeed, what is universality in the context of aesthetics? What is universality apart from an objective principle, whether in the constitution of the object (as in cognition) or in what ought to determine subjects (as in morality). Since the aesthetic judgment is essentially singular, instead of conceiving of universality in terms of a law ranging over beautiful objects in general, Kant seeks it in the relation established between judging subjects. But, to secure universality for taste, it is not sufficient to turn from the lawfulness of the subject matter of judgment to the consideration of the general validity which judgments can have, that is to the possible agreement of all subjects over instances beauty. For the question is precisely how such an agreement is to be possible and what form would it take without an objective subject matter on which to agree.

Once again, the key would be to consider the way in which the judgment is an expressive act. In particular, one should note that I do not judge for myself and then infer from the sense of the correctness of the judgment that it must be valid for all, thus expecting others to agree. Rather, universality is internalized into the very making of the judgment. The aesthetic judgment is pronounced with a universal voice as the judge of taste "judges not merely for himself, but for all men, and then speaks of beauty as if it were a property of things" (Ak. 5: 212). In passing judgment I *already* take myself to speak for others. To give a name to this position, call it 'being representative'.

Whereas there are only instances, examples, of *general* laws, the universality of the aesthetic demands the representativeness of subjects. Kant calls the necessity thought in an aesthetic judgment "exemplary": "it is a necessity of the assent of *all* to a judgment regarded as exemplifying a universal rule incapable of formulation" (Ak. 5: 237). To pronounce a judgment on what is beautiful, is to speak with a universal voice, to speak for an *idea* of universal agreement. What is exemplified by the judgment is thus a possibility of being intelligible in relation to that which is beautiful. To show such a possibility does not preclude other ways of bringing words to beauty, but rather calls for them. Indeed, it is the very gap between the idea and any attempt to give it body (which, of necessity, will be partial) that requires further exemplifications. Far from damaging the universality of the aesthetic judgment, the multiplicity of takes on, say a work of art, is precisely adequate to its nature.

CONCLUDING REMARK: THE SEMBLANCE IN BEAUTY

Is the space of meaning opened by the movement of the mind something discovered in the thing itself or is it what the imagination of the subject brings to it, gath-

ering itself around it? True to the logic of the Third Critique, I think that Kant would argue that it is neither or both. My analysis, I hope, brought out why Kant speaks of form just as much in relation to the movement of the mind as in relation to the object, equally of the form of finality of an object and the formal finality in the play of the cognitive faculties. Just as the movement of the mind reveals the faculty of representation as a whole, so the corresponding revelation 'in the thing' can be called the intuiting of its possibilities as they are embodied in it, the manifestation of its form. Form is opened up and presented by the movement of the mind. But what is such a space of meaning which is neither subjective nor objective? And how does it relate to the possibilities of significance of a human world? In other words, what is the peculiar lack of reality of beauty, and how does its semblance nevertheless leave room to relate it to truth? (I use the word 'semblance' to distinguish what I speak of here from 'illusion', as well as from falsifications of aesthetic experience such as fanaticism and kitsch).[11]

Beauty's lack of ultimate reality can be understood of course in terms of its being a matter of how things appear, rather than what they truly are. But, in Kant's account this ontological deficiency of beauty is translated into the understanding that the aesthetic, though treated in the critical philosophy, does not constitute a further realm beyond those of nature and freedom. From each of these points of view, the judgment upon the beautiful will appear to lack something essential to our assessments of reality. To put it in terms of an expression that often recurs in Kant's account of judgment: Our judgments would have an "as if" quality to them. From the point of view of cognition, the judgment of taste will be found lacking in conceptual determination. From the point of view of morality, it will also be found to lack the seriousness and commitment required to motivate action. What is extolled as the spirit of free play that governs the judgment of taste is liable to appear from these perspectives, in less favorable light, seen as the postponement, ambiguity, and evasiveness typical of the aesthetic. But would there be an option, assuming that beauty does not exclude meaning, to lead from beauty and through it, to significance that one would take seriously as being truthful?

What would, at least, be required, would be to give an account of the evasiveness of meaning in beauty that makes it more than a mere defect, mere vagueness. This is why I wish to formulate it in terms of the pull of the idea on the phenomenal. My account of the universal voice has already suggested, I think, how the idea orients the judgment of taste. Not symbolically, as when Kant speaks of beauty being the symbol of morality, but, as indicated by the very movement of meaning characteristic of the aesthetic judgment. Similarly, though I have not discussed it here, Kant's account of the ideal of beauty would precisely address how the beauty of the human figure is a presentation of that which is not visible in experience—namely, morally good character. But think further of Kant's characterization of the beauty of art as an "aesthetic idea for which a rational concept can never be found" (Ak. 5: 210) which he further elucidates as follows: "Just as the *imagination*, in the case of a rational idea, fails with its intuitions to attain to the given concepts, so

understanding, in the case of an aesthetic idea, fails with its concepts to attain to the completeness of the internal intuition which imagination conjoins with a given representation" (Ak. 5: 212).

How are we to understand this feature of beauty? I take it that beauty does not just, in itself, show us that no concept would be adequate to it. Rather, it is through the attempt to give it expression in the aesthetic judgment that the evasiveness of its meaning is realized. Put differently, a beautiful thing is not merely a particular, determined by its specific properties or by its particular spatiotemporal location. It does not have the same principle of identity as an object of experience. Its assumed identity is not a result of conceptual synthesis, but rather its singularity is understood in relation to the completeness or self-enclosed totality of the idea. Treating it as such would demand constantly leaving our judgments open to further significance, thus, at the same time, inherently ambiguous.

Assuming that the idea plays a role in our relation to the beautiful, that the revelation of form is oriented by the idea would at the same time account for the possibility of the movement of meaning that enlivens beauty, as well as for the problematic nature of its existence, for the ambiguity that traverses it. The semblance of beauty would have to do with its incorporating within itself the very dialectical tension of the phenomenal and the ideal. That tension becomes the condition of possibility of beauty, of its truthfulness as well as of its problematic nature.[12]

NOTES

This paper is based on a lecture given in the Sawyer seminar conference devoted to the question of nondiscursive representation at the University of Chicago. I am grateful to the participants of that seminar for their comments and interventions. In particular I wish to thank James Conant, Hannah Ginsborg, Arata Hamawaki, David Wellbery, and Lindsay Waters. I have also greatly benefited at different stages of writing from conversations with Ido Geiger, Hagi Kenaan, Ofra Rechter, and Yaron Senderowicz.

1. From *Walter Benjamin Selected Writings,* vol. II (Cambridge: Harvard University Press, 1999), 547.
2. My aim here is not to argue against specific interpretations of Kant, but rather to provide an alternative that gives a central place to expression in the structure of the judgment of taste. I do think, though, that many views of Kant's account share the assumption that language does not play a part in the grammar of the aesthetic judgment. This is evident for instance in Paul Guyer's *Kant and the Claims of Taste* (Cambridge: Cambridge University Press, 1997), and specifically in his interpretation of the universal communicability intrinsic to the aesthetic judgment. It is also evident, to give another example, in Henry Allison's understanding of the division between free and dependent beauty, leading to his neglect of Kant's discussion of the ideal of beauty (see chapter 6 of Henry E. Allison, *Kant's Theory of Taste: A Reading of the Critique of Aesthetic Judgment* [Cambridge: Cambridge University Press, 2001]).
3. The poverty imposed on the aesthetic by the aforementioned account cannot even be alleviated, as is sometimes attempted, by supplementing it with a reference to a generalized sense of the significance of beauty supposedly expressed in Kant's famous claim that "beauty is the symbol of morality." For such a symbolic analogy would leave meaning just as extrinsic to the judgment on beauty itself.

4. See my "On Examples, Representatives, Measures, Standards and the Ideal," in *Reading Cavell*, ed. A. Crary and S. Shieh (London and New York: Routledge, 2006).
5. All references to Kant's *Critique of Judgment* are to the translation of James Creed Meredith (Oxford: Oxford University Press, 1952). The page references will be given following the quote, according to the pagination of the *Akademie* edition.
6. One might therefore surmise that if there is such a thing as a pure reflective judgment, it *must* be a disinterested judgment. Kant's emphasis on disinterestedness is not only the result of the reflection on the phenomenon of the aesthetic, but also results from the reflection on the nature of judgment and the condition for the possibility of a critique of that faculty.
7. I am here indebted to Hannah Ginsborg's insights on the relation of pleasure and the judgment of taste. See in particular her "Reflective Judgment and Taste," in *Noûs* 24 (1990): 63–78.
8. As an initial motivation for this identification of the notion of form with a space of possibilities, I would point to Kant's understanding of the forms of intuition in the *Critique of Pure Reason*. More specifically, thinking of the activity of the imagination, so central to the aesthetic, consider that what Kant calls 'schematization' does not provide the image of a specific state of affairs, but rather the *possibilities* of the appearance of a concept in experience. I also wish to motivate my use of the notion of form somewhat anachronistically by mentioning Clement Greenberg's Kantian understanding of modernism, according to which aesthetic judgment, identified now as criticism, is to show how each art is primarily concerned with presenting the conditions of its possibility, or the medium.
9. This makes clear that what Kant thinks of as the adaptation of our faculties in the aesthetic judgment "to cognition generally" does not mean finding a shadowy state common or at the background of all acts of cognition. Rather, by referring the judgment to "cognition generally" Kant points to the possibility of having a representation generate a movement of meaning which makes present to us precisely the power of our faculties, that which makes possible every act of cognition. To speak of 'cognition generally' is not to speak of an average, nor of what is common equally in all states of cognition. "Cognition generally" must not be assumed to be a sort of "buzz" that accompanies or is in the background of each and every act of cognition. The indeterminacy of that state does not mean its vagueness, nor its being of a particularly high level of generality. We might be tempted to take Kant's claim that in the judgment upon beauty our faculties are brought together to an *indefinite* activity to mean that such a state of mind is a vague conglomerate of perception and pleasure, something not definite enough to involve words. And further assume that because it is a state that occurs wherever we are confronted by beauty it must be something very minimal indeed, which is common to our experience of a flower and the Mona Lisa. Yet, the mistake might be in having too narrow or reified a notion of what a state of mind is. For Kant does not characterize a common *static* state but a common form of activity: the putting into words. Such state of mind is not confused, but rather its characterization as indefinite precisely points to the fact that no single conceptual determination can do the work. It is a state of mind identified by the inner logic of its changes, a continuous activity, whose whole scope defines what it is to judge something to be beautiful. That activity can be exact and exacting, while not eventuating in a conceptual determination.
10. Granted it cannot be the object of a pure judgment of taste: "An estimate formed according to such a standard," Kant writes, "can never be purely aesthetic, and . . . one formed according to an ideal of beauty cannot be a simple judgment of taste" (Ak. 5: 236). But this polarization of free and ideal beauty precisely reflects the polarization that traverses the Third Critique. It is the upshot of the understanding of judgment to be a mediating function, thus to always touch upon irreconcilable extremes.
11. On the structure of illusion in fanaticism and kitsch, see my "Kant and the Critique of False Sublimity," *Iyun* (January 1999), as well as "Some Thoughts on Kitsch," *History and Memory* (Fall 1997): vol. 1/2.
12. This way of formulating the matter is not, at this point, so far from Walter Benjamin's understanding of the relation of the art-work, its form (or medium) and the idea of art. Benjamin's "The Concept of Criticism in German Romanticism," in which he engages the Romantic's inheritance of Kant, rethinks the principle of identity of, at least, artistic beauty, in terms of a history or tradition through which it gathers and transforms its meaning. He further considers the modes in which the semblance of beauty can be dispelled without thereby dismissing the meaning revealed

in critical reflection as illusory. This would require arresting the restlessness of meaning, without ending it with a conceptual determination. This arrest, call it the sublime moment in beauty, is central to the structure of the ideal of beauty as well as to Benjamin's understanding of the dialectical image. See on this matter my "Measure of the Contingent: Walter Benjamin's Dialectical Image," forthcoming in *Boundary 2.*

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Carnap and Quine: Twentieth-Century Echoes of Kant and Hume

Michael Friedman
Stanford University

As a student at the University of Jena—where, in particular, he learned modern mathematical logic from Gottlob Frege—Rudolf Carnap was exposed early on to the Kantian view that the geometry of space is grounded in the pure form of our spatial intuition; and, as Carnap explains in his autobiography, he was initially strongly attracted by this view:

> I studied Kant's philosophy with Bruno Bauch in Jena. In his seminar, the *Critique of Pure Reason* was discussed in detail for an entire year. I was strongly impressed by Kant's conception that the geometrical structure of space is determined by the form of our intuition. The after-effects of this influence were still noticeable in the chapter on the space of intuition in my dissertation, *Der Raum.* (1963a, 4)

In particular, Carnap's dissertation, completed—under Bauch—in 1921 and published in *Kant-Studien* in 1922, defends the view that the form of our pure intuition has only the infinitesimally Euclidean structure presupposed in Riemann's theory of n-dimensional manifolds (rather than a global three-dimensional Euclidean structure), and, in this way, Carnap accommodates the Kantian doctrine of pure spatial intuition to Einstein's recent formulation of the general theory of relativity.[1]

But even this attenuated version of pure intuition and the synthetic a priori was abandoned when Carnap became a leading member of the Vienna Circle in the mid- to late 1920s—and it was probably already abandoned while Carnap, in

1924–25, was working on *Der logische Aufbau der Welt* before he joined the Circle. Indeed, Carnap also tells us in his autobiography (1963a, 11–13) that he intensively studied Whitehead and Russell's *Principia Mathematica* and Frege's *Grundgesetze der Arithmetik* in 1919–20; and from Frege, in particular, he "gained the conviction that knowledge in mathematics is analytic in the general sense that it has essentially the same nature as knowledge in logic" (12). For Carnap, however, the significance of this view was not that we can thereby justify or explain mathematical knowledge on the basis of another type of knowledge—logical knowledge—presumed to be antecedently (or better) understood, but rather that logic and mathematics together play a distinctively formal or inferential role in framing our empirical knowledge:

> It is the task of logic and mathematics within the total system of knowledge to supply the forms of concepts, statements, and inferences, forms which are then applicable everywhere, hence also to non-logical knowledge. It follows from these considerations that the nature of logic and mathematics can be clearly understood only if close attention is given to their applications in non-logical fields, especially in empirical science. Although the greater part of my work belongs to the fields of pure logic and the foundations of mathematics, nevertheless great weight is given in my thinking to the application of logic to non-logical knowledge. This point of view is an important factor in the motivation for some of my philosophical positions, for example, for the choice of forms of languages, for my emphasis on the fundamental distinction between logical and non-logical knowledge. (1963a, 12–13)

The point of the *Aufbau*, accordingly, is then to depict, in the most general possible terms, the way in which the "forms of concepts" supplied by modern mathematical logic can in fact succeed in structuring our empirical knowledge. Carnap retains the Kantian idea that empirical knowledge is itself only possible in virtue of a priori forms and principles antecedently supplied by thought. But now, in the *Aufbau*, he defends an empiricist version of this conception, in the sense that such (still indispensable) formal structuring is now seen (in virtue of modern mathematical logic) as *analytic* rather than *synthetic* a priori.[2]

Another well-known passage in Carnap's autobiography describes how a combination of Frege-Russell logicism with Wittgenstein's conception of tautology allowed the Vienna Circle to arrive "at the conception that all valid statements of mathematics are analytic in the specific sense that they hold in all possible cases and therefore do not have any factual content" (1963a, 47)—a conception which resulted in a major advance over all earlier forms of empiricism:

> What was important in this conception from our point of view was the fact that it became possible for the first time to combine the basic tenet of empiricism with a satisfactory explanation of the nature of logic and mathematics. Previously, philosophers had only seen two alternative positions: either a non-empiricist conception, according to which knowledge in mathematics is based on pure intuition or pure reason, or the view held, e.g., by John Stuart Mill, that the theorems of logic and of mathematics are just as much of an empirical nature as knowledge

> about observed events, a view which, although it preserved empiricism, was certainly unsatisfactory. (ibid.)

Indeed, this rejection of pure intuition and the synthetic a priori in favor of the view that all logico-mathematical truth is analytic and has no factual content quickly became definitive of what Carnap and the Vienna Circle meant by their empiricism.[3]

In the late 1920s and early 1930s, however, the Circle became involved with the "crisis" in the foundations of mathematics precipitated by L. E. J. Brouwer's development of a Kantian-inspired version of "intuitionism" concerning the objects of arithmetic and analysis and David Hilbert's development of proof-theory in response to Brouwer. In particular, Brouwer gave a famous lecture in Vienna in 1928, and the Circle was appropriately impressed:

> In the Circle we also made a thorough study of intuitionism. Brouwer came to Vienna and gave a lecture on his conception, and we had private talks with him. We tried hard to understand his published or spoken explanations, which was sometimes not easy. The empiricist view of the Circle was of course incompatible with Brouwer's view, influenced by Kant, that pure intuition is the basis of all mathematics. On this view there was, strangely enough, agreement between intuitionism and the otherwise strongly opposed camp of formalism, especially as represented by Hilbert and Bernays. But the constructivist and finitist tendencies of Brouwer's thinking appealed to us greatly. (1963a, 49)

One way to understand the problem with which the Circle was now faced, therefore, is how to acknowledge the evident strengths of Brouwer's viewpoint without becoming entangled with a "non-empiricist" commitment to pure intuition.

Carnap's solution is the *Logical Syntax of Language*, published in 1934. In conformity with the basic metamathematical method of Hilbertian proof-theory, we view any formulation of logic and mathematics as a syntactically described formal system, where the notions of well-formed formula, axiom, derivation, theorem, and so on can all be syntactically expressed. In light of Gödel's recently published incompleteness theorems, however, we do not pursue the Hilbertian project of constructing a proof of the consistency of classical mathematics using finitary means acceptable to the intuitionist. Instead, we formulate both a formal system or calculus conforming to the strictures of intuitionism (Carnap's Language I, a version of primitive recursive arithmetic) and a much stronger system adequate for full classical mathematics (Carnap's Language II, a version of higher-order type theory over the natural numbers as individuals). For both systems, moreover, we define a notion of logical truth (analyticity) intended formally or syntactically to express their essential independence from all factual content. Finally, and most important, Carnap formulates the principle of tolerance: *both* types of system should be syntactically described and investigated, and the choice between them, if there is one, should then be made on practical or pragmatic grounds rather than on the basis of prior, purely philosophical commitments.[4]

Once again, Carnap presents a very clear and succinct description of this new view in his autobiography:

> According to my principle of tolerance, I emphasized that, whereas it is important to make distinctions between constructivist and non-constructivist definitions and proofs, it seems advisable not to prohibit certain forms of procedure but to investigate all practically useful forms. It is true that certain procedures, e.g., those admitted by constructivism or intuitionism, are safer than others. Therefore it is advisable to apply these procedures as far as possible. However, there are other forms and methods which, though less safe because we do not have a proof of their consistency, appear to be practically indispensable for physics. In such a case there seems to be no good reason for prohibiting these procedures so long as no contradictions have been found. (1963a, 49)

And, as we know, the principle of tolerance then became absolutely central to Carnap's philosophy from this point on.

It might appear, however, that Carnap's attempt thereby to dissolve the dispute between classical mathematics and intuitionism is viciously circular. For Carnap's application of the principle of tolerance to this case involves raising the question, in a syntactic metalanguage, whether to adopt the classical or intuitionist logical rules in a particular object-langauge—in this case, the language of total science (mathematics plus physics). We weigh the relative safety (from the possibility of contradiction) of the intuitionist rules against the greater fruitfulness and convenience (in physics) of the classical rules and then make our choice. But if the intuitionist, as he claims, cannot even properly understand the rules of the classical framework—and cannot, *a fortiori*, understand the necessarily even stronger classical metalanguage in which we describe these rules—then it would appear that our entire procedure simply begs the question against the intuitionist.

This argument is certainly tempting, and I must confess that I myself have succumbed to the temptation more than once.[5] I now think, however, that it misses the essence of Carnap's position. In particular, Carnap begins from the presupposition that classical mathematics, as it is standardly practiced, is well understood. Indeed, classical mathematics, for Carnap, is a model or paradigm of clear and exact—scientific—understanding, and there is no room for raising doubts about our understanding of this framework on independent, purely philosophical grounds. To be sure, the foundations crisis sparked by the discovery of the paradoxes, and the failure of Hilbert's proof theory, raise serious technical questions regarding the consistency of the classical framework, and this is precisely why, for Carnap, we should now take intuitionism seriously. To take it seriously, however, means that we entertain the proposal, starting from within the classical framework, that we should weaken its rules to make inconsistency less likely. There is nothing in Carnap's position blocking a classical mathematician from entertaining this option or even deciding then to adopt it. Carnap has therefore not begged the question of the choice between classical and intuitionist mathematics as he understands this question. That an intuitionist mathematician cannot understand the choice as Carnap

understands it is irrelevant, for the situation in which we in fact find ourselves has arisen within the paradigmatically well-understood practice of classical mathematics itself.[6]

It was in 1931, as Carnap was preparing the manuscript of *Logical Syntax* for publication, that he first met the twenty-three-year-old Willard Van Orman Quine. Quine (1971/1990, 465) describes the importance of this encounter as follows: "It was my first experience of sustained intellectual engagement with anyone of an older generation, let alone a great man. It was my first really considerable experience of being intellectually fired by a living teacher rather than by a dead book. I had not been aware of the lack."[7] Indeed, it appears that it was this encounter with Carnap and *Logical Syntax* which first sparked Quine's serious interest in philosophy, as opposed to the more narrowly technical questions in logic on which he had focused so far. In matters of philosophy, after this encounter, Quine "was very much [Carnap's] disciple for six years" (1971/1990, 464)—until after the publication, that is, of "Truth by Convention."[8]

The main fruit of Quine's philosophical thinking during this period of discipleship were three lectures on Carnap's *Logical Syntax* delivered at Harvard in the fall of 1934.[9] The philosophical payoff, for Quine, is the idea that philosophy can be replaced by the logical syntax of language, so that traditional metaphysical controversies—about meanings, modalities, universals, numbers, and so on—can now be avoided. Of particular interest, in this connection, is Quine's first lecture, on "The *A Priori*." Quine begins (47) with Kant's statement that an a priori judgment "has the character of an inward necessity." Kant also held, according to Quine (47–48), that "[a]nalytic judgments are consequences of definitions, conventions as to the uses of words[; t]hey are consequences of linguistic fiat." But, Quine continues, "the development of foundational studies in mathematics during the past century has made it clear that none of mathematics, not even geometry, need rest on anything but linguistic conventions" (48). So, in conclusion, our syntactic critique of metaphysics extends to the synthetic a priori as well: the modern (Carnapian) view "has the importance of enabling us to pursue foundations of mathematics and the logic of science without encountering extra-logical questions as to the source of the validity of our *a priori* judgments . . . [, and] it shows that all metaphysical problems as to an *a priori* synthetic are gratuitous" (66).

Already here, however, there is a subtle misplacement of emphasis—which, in time, gives rise to a quite fundamental misapprehension of Carnap's position. Quine, in the 1934 lectures, makes no mention at all of the principle of tolerance, and he makes no mention, in particular, of the dispute between classical mathematics and intuitionism.[10] Quine confines his attention, instead, wholly to classical logic and mathematics, and he views Carnap's conception of analyticity as an alternative account of the "inward necessity" Kant had originally ascribed to the mathematical a priori. Later, in "Carnap and Logical Truth," Quine begins with Kant's question how synthetic a priori judgments are possible, replaces this question (in light of the Frege-Russell reduction of mathematics to logic) with the question,

"How is logical certainty possible?" and asserts that "[i]t was largely this latter question that precipitated the form of empiricism we associate with between-war Vienna—a movement which began with Wittgenstein's *Tractatus* and reached its maturity in the work of Carnap."[11] The answer it found, according to Quine, was "the linguistic doctrine of logical truth":

> What now of the empiricist who would grant certainty to logic, and to the whole of mathematics, and yet would make a clean sweep of other non-empirical theories under the name of metaphysics? The Viennese solution of this nice problem was predicated on language. Metaphysics was meaningless through misuse of language; logic was certain through tautologous use of language. (1963, 386)

By the end of his paper, moreover, Quine makes it clear that this "linguistic doctrine of logical truth" is identical with the view that logical truths are true solely in virtue of linguistic convention. So it is no wonder that, as we already observed, Quine (1986) dates the beginnings of his "apostasy" to "Truth by Convention." For the main critical point of that paper is that further reflection on what it might mean to say that logical or analytic truths are "*consequences* of definitions," "*consequences* of linguistic fiat," risks depriving the notion of linguistic convention of "explanatory force"—as an explanation, that is, for precisely the "inward necessity" which, following Kant, is customarily ascribed to both logic and mathematics.[12]

Yet Carnap's own emphasis on the importance of the analytic/synthetic distinction is by no means derived from an epistemological program for pure logic and mathematics aiming to explain how logical and mathematical certainty is possible by appealing to truth-by-convention or truth-in-virtue-of-meaning. Rather, according to precisely the principle of tolerance, the point of viewing the statements of logic and mathematics as analytic lies in *our freedom to choose* which system of logic and mathematics best serves the formal deductive needs of empirical science. Classical mathematics, for example, is much easier to apply, especially in physics, than intuitionist mathematics, while the latter, being logically weaker, is less likely to result in contradiction. The choice between the two systems is therefore purely practical or pragmatic, and it should thus be sharply separated, in particular, from all traditional philosophical disputes about what mathematical entities "really are" (independent "Platonic" objects or mental constructions, for example) or which such entities "really exist" (only natural numbers, for example, or also real numbers, that is, sets of natural numbers). Carnap aims to use the new tools of metamathematics definitively to dissolve all such metaphysical disputes and to replace them, instead, with the much more rigorous and fruitful project of language planning, language engineering—a project which, as Carnap understands it, simply has no involvement whatsoever with any traditional epistemological program.[13]

Quine's self-professed "apostasy" became very clear during discussions between Carnap, Quine, and Alfred Tarski at Harvard during the academic year 1940–41—in which, as has long been known, both Tarski and Quine disputed Carnap's views on analyticity and logical truth (as expressed, at the time, in Carnap's manuscript

for his forthcoming *Introduction to Semantics*). However, as examination of Carnap's notes at the Pittsburgh archives by several scholars has recently shown, the main topic of discussion was an attempt to construct a nominalist version of arithmetic.[14] The idea, as promoted especially by Tarski and Quine, was to develop a nominalistically acceptable conception of mathematics by viewing it as a purely formal uninterpreted calculus which could nonetheless be useful for calculations in empirical science in the form of purely syntactic transformation rules. But we know from Gödel (and Carnap) that syntax is essentially arithmetic, so the problem then arises of giving a nominalistically acceptable interpretation of arithmetic. Both Tarski and Quine represent the position that full, infinitary classical arithmetic is not meaningful or understandable [*verständlich*] in the strictest sense, and the project they set themselves is to develop a version of finitary arithmetic assuming the existence of nothing other than concrete physical objects—which, for both Tarski and Quine, are paradigmatic of *Verständlichkeit*. Carnap, for his part, does not share at all in these nominalist philosophical ambitions, but he is interested, as always, in the purely technical problem of seeing how far one can go in the development of calculi or linguistic frameworks subject to various requirements and constraints.

For Quine, the results of these discussions culminated in "Steps Toward a Constructive Nominalism," published in 1947 with Nelson Goodman (who had also participated in some of the discussions in 1940–41). This paper begins with the ringing declaration: "We do not believe in abstract entities" (1947, 105); and it goes on to answer the question why the authors "refuse to admit the abstract objects that mathematics needs" by the statement (ibid.): "Fundamentally this refusal is based on a philosophical intuition that cannot be justified by anything more ultimate." Nevertheless, further light is shed on their philosophical motivations by the preceding paragraph:

> Renunciation of abstract objects may leave us with a world composed of physical objects and events, or of units of sense experience, depending upon decisions that need not be made here. Moreover, even when a brand of empiricism is maintained which acknowledges repeatable sensory qualities as well as sensory events, the philosophy of mathematics still faces essentially the same problem that it does when all universals are repudiated. Mere sensory qualities afford no adequate basis for the unlimited universe of numbers, functions, and other classes claimed as values of the variables of classical mathematics. (1947, 105)

A footnote to the penultimate sentence then refers us to Goodman's 1941 Harvard dissertation, *A Study of Qualities*, which was largely inspired by Carnap's *Aufbau* and which eventuated in *The Structure of Appearance* (1951).

Both Goodman and Quine consistently understood the *Aufbau* as a version of empiricist foundationalism, in the tradition of Locke, Berkeley, and Hume. Thus Quine, in "Two Dogmas of Empiricism" (1951), famously considers Carnap's *Aufbau* as the culmination of the "radical [empiricist] reductionism" developed by

Locke and Hume—the doctrine that "every idea must either originate directly in sense experience or else be compounded out of ideas thus originating" (1951/1953, 38). Carnap reformulated this radical empiricist program using the formal devices of modern logic, and, in these terms, he almost succeeded (39): "He was the first empiricist who, not content with asserting the reducibility of science to terms of immediate experience, took serious steps toward carrying out the reduction." Similarly, in his paper on Carnap's *Aufbau* in the Schilpp volume, Goodman (1963, 558) says: "It belongs very much in the main tradition of modern philosophy, and carries forward a little the efforts of the British Empiricists of the 18th Century." And this suggests that the ultimate philosophical motivations for adopting nominalism, for both Goodman and Quine, derive precisely from the British Empiricist tradition.

This suggestion is confirmed by lectures on Hume's philosophy Quine presented at Harvard in the summer of 1946.[15] Quine begins with an outline of the history of epistemology very similar in spirit to the sketches he later presents in such published works as "Two Dogmas of Empiricism" (1951) and "Epistemology Naturalized" (1969). Epistemology "begins as a quest for certainty," "with the philosophical urge to find a bed-rock of certainty somewhere beneath the probabilities of natural science" (180–81). This quest culminates, in the modern period, with the rationalism of Descartes and Leibniz based on clear and distinct ideas of reason (as paradigmatically exemplified in mathematics) innately implanted in us by God. Fortunately, however, "Locke made a clean sweep of the whole theory of innate ideas," resulting in the much healthier and more "candid" doctrine of empiricism: here we find the "bed-rock of certainty" in our "direct sense impressions," and the program then becomes one of showing how all "[f]urther ideas are formed from these by combination" (187–88). We thus arrive at the program of "radical [empiricist] reductionism" Quine attributes to Locke and Hume in "Two Dogmas."

In his 1946 lectures, Quine's discussion of Hume, in particular, takes an especially interesting turn. Quine gives special emphasis to the circumstance that "Hume is a nominalist[; h]e does not believe in universals" (202), and Quine then connects this nominalism with Hume's arguments, in the *Treatise*, that space and time are not infinitely divisible. Quine suggests that a modern version of an "ideal of empiricist construction"—modeled on Carnap's *Aufbau* but not committed to "a logic which presupposes universals"[16]—yields the conclusion that "Hume's condemnation of [geometrical] space remains valid" (209). More precisely, the "sophisticated," modern construction assumes only propositional connectives, first-order quantification, identity, and "indefinitely many *empirical* predicates"; Hume's questions about infinitely divisible space then become the questions whether all geometrical statements can be expressed in this "empirically acceptable vocabulary," and whether, so expressed, "the propositions of infinite divisibility become true" (209–10). Moreover, "there is an equal problem, not recognized by Hume, in the infinite divisibility of the numbers themselves—and even in the infinite generability of the whole numbers." Quine concludes (210): "In *all* these problems, the answer—even for the sophisticated notion of construction—is very likely *no*." In

sum, from Quine's point of view, Hume has indeed raised a genuine problem about the meaningfulness of classical mathematics (213): "[T]he problem is still alive, and worth reconsidering now from the point of view of an enlightened empiricism—empiricistic and nominalistic as before, but armed with the sophisticated conception of construction." There can be very little doubt, therefore, that the standards of meaningfulness or *Verständlichkeit* motivating Quine's pursuit of a nominalistic arithmetic in the Harvard discussions of 1940–41—and, quite likely, his work with Goodman in 1947 as well—are precisely those of Humean empiricism (now construed in Quine's "sophisticated" way).

I noted that Carnap, in the Harvard discussions, does not accept the standards of meaningfulness or *Verständlichkeit* appealed to by Tarski and Quine. More generally, he is never attracted to the conception of meaning derived from Lockean and Humean empiricism, according to which only terms directly referring to immediately given concrete sensory data are paradigmatically meaningful. On the contrary, Carnap's conception is quite distinct from traditional empiricism, in that sense experience, on his view, has significance for science only if it is already framed and structured within the abstract forms supplied by logic and mathematics. Indeed, this, as already suggested, is one of the main themes of the *Aufbau*, and, as late as his preface to the second edition in 1961, Carnap describes his conception accordingly:

> For a long time, philosophers of various persuasions have held the view that all concepts and judgments result from the cooperation of experience and reason. In principle, empiricists and rationalists agree in this view, even though the two sides differentially estimate the significance of the two factors, and often obscure the essential agreement by carrying their viewpoints to extremes. The thesis which they have in common is frequently stated in the following simplified version: The senses provide the material of cognition, reason works up [*verarbeitet*] the material into an organized system of cognition. The task thereby arises of establishing a synthesis of traditional empiricism and traditional rationalism. Traditional empiricism rightly emphasized the contribution of the senses, but it did not recognize the significance and peculiarity of logico-mathematical formation. Rationalism had certainly grasped this significance, but it had believed that reason could not only supply form, but could also produce new content out of itself ("a priori"). Through the influence of Gottlob Frege, with whom I studied in Jena, but who was universally recognized as a preeminent logician only after his death, and by studying the works of Bertrand Russell, I had become clear, on the one hand, about the fundamental significance of mathematics for the formation of the system of cognition, and, on the other, about the purely logical, formal character of mathematics on which rests its independence from the contingencies of the real world. These insights formed the basis of my book. (1961/1967, v–vi; my translation)

Here, in terms strongly evocative of Kant, Carnap formulates a version of empiricism which, on the one side, is fundamentally committed to the central role of mathematics in empirical knowledge from the very beginning, and, on the other,

also recognizes that this role is only possible, in turn, in virtue of its analyticity or complete independence from all factual content.

From Carnap's point of view, therefore, there is no room for empiricist doubts about the meaningfulness of classical mathematics. Empiricism, for Carnap, simply amounts to a commitment to the methods of our best empirical physical science, which, for him, constitutes a paradigm of clear and exact—scientific—understanding. The essential application of classical mathematics in this science therefore counts as paradigmatically clear and well understood by the standards of Carnap's empiricism, and it is in virtue of precisely the same standards, moreover, that classical mathematics itself counts as paradigmatically clear and well understood. So Carnap's response to nominalism, in the end, is the same as his response to intuitionism. It certainly makes sense, from the point of view of classical mathematical physical science, to envision a weakening of its logico-mathematical rules: just as the intuitionist can propose to replace Peano arithmetic with the weaker rules of primitive recursive arithmetic, the finitist nominalist can propose to go so far as to weaken the fundamental rules governing the successor function. But it does not make sense to give "external," purely philosophical reasons for making such proposals: just as it does not make sense, from Carnap's point of view, for the Kantian-inspired intuitionist to question classical unbounded existential quantification on the basis of a prior conception of the necessarily incompleteable character of the iterability of ideal mental operations in pure intuition, it does not make sense for the Humean-inspired nominalist to question the classical rules for successor on the basis of a prior conception of the necessarily particular and concrete character of immediately given sensory impressions.

The main point of Carnap's "Empiricism, Semantics, and Ontology," published in 1950, is to articulate a distinction between "internal" questions, which can be raised and settled within a given linguistic framework introducing this or that type of entities as values of its variables (numbers, physical things, space-time points, and so on), and what Carnap calls "external questions, i.e., philosophical questions concerning the existence or reality of the total system of the new entities" (1950a/1956, 214). With respect to the latter questions, Carnap remarks, "[m]any philosophers regard a question of this kind as an ontological question which must be raised and answered *before* the introduction of the new language forms[; t]he latter introduction, they believe, is legitimate only if it can be justified by an ontological insight supplying an affirmative answer to this question" (ibid.). Carnap's view, on the contrary, is that, although there is certainly a practical question of which such linguistic frameworks to adopt, there is absolutely no corresponding theoretical question (ibid.): "Above all, it must not be interpreted as referring to an assumption, belief, or assertion of 'the reality of the entities'. There is no such assertion. An alleged statement of the reality of the system of entities is a pseudo-statement without cognitive content."

Carnap applies this distinction, in particular, to the case of ontological questions about the existence or reality of numbers, as raised, in this case, by the nominalist:

> The linguistic forms of the framework of numbers, including variables and the general term 'number', are generally used in our common language of communication; and it is easy to formulate explicit rules for their use. Thus the logical characteristics of the framework are sufficiently clear (while many internal questions, i.e., arithmetical questions, are, of course, still open). In spite of this, the controversy concerning the external question of the ontological reality of the system of numbers continues. Suppose that one philosopher says: "I believe that there are numbers as real entities. This gives me the right to use the linguistic forms of the numerical framework and to make semantical statements about numbers as designata of numerals." His nominalistic opponent replies: "You are wrong; there are no numbers. The numerals may still be used as meaningful expressions. But they are not names, there are no entities designated by them. Therefore the word 'number' and numerical variables may not be used (unless a way were found of translating them into the nominalistic thing language)." I cannot think of any possible evidence that would be regarded as relevant by both philosophers, and therefore, if actually found, would decide the controversy or at least make one of the opposite theses more probable than the other. (To construe the numbers as classes or properties of the second level, according to the Frege-Russell method, does, of course, not solve the controversy, because the first philosopher would affirm and the second deny the existence of the system of classes or properties of the second level.) Therefore I feel compelled to regard the external question as a pseudo-question, until both parties to the controversy offer a common interpretation of the question as a cognitive question; this would involve an indication of possible evidence regarded as relevant by both sides. (1950a/1956, 218–19)

The position ascribed to the nominalist corresponds rather closely to that earlier defended by Tarski and Quine at Harvard—and therefore, as we have seen, to that defended by Goodman and Quine in 1947. Carnap, from the point of view of our best empirical physical science, entirely rejects the ontological question—taken as theoretical—such nominalists are attempting to raise.

Meanwhile, however, Quine had developed his own account of ontological questions in "On What There Is," published in 1948. Quine here decisively breaks with the Humean-inspired nominalism lying behind his joint paper with Goodman,[17] and he articulates, instead, a pragmatic and holistic version of empiricism according to which all elements of our conceptual scheme—ordinary physical objects, theoretical entities in physics, *and* mathematical objects (numbers, sets, and so on)—are to be viewed as postulated entities in our overall empirical theory of the world:

> Our acceptance of an ontology is, I think, similar in principle to our acceptance of a scientific theory, say a system of physics: we adopt, at least insofar as we are reasonable, the simplest conceptual scheme into which the disordered fragments of raw experience can be fitted and arranged. Our ontology is determined once we have fixed upon the over-all conceptual scheme which is to accommodate science in the broadest sense; and the considerations which determine a reasonable construction of any part of that conceptual scheme, for example, the

> biological or the physical part, are not different in kind from the considerations which determine a reasonable construction of the whole. (1948/1953, 16–17)

In the case of mathematical objects, in particular, there is no more reason, on empiricist grounds, to reject them in favor of an ontology containing only concrete physical objects than there is to reject physical objects, in turn, in favor of a purely phenomenalist ontology containing only the sensory evidence we are now attempting to systematize:

> A platonist ontology [of classes] is, from the point of view of a strictly physicalistic conceptual scheme, as much a myth as that physicalistic conceptual scheme is for phenomenalism. This higher myth is a good and useful one, in turn, in so far as it simplifies our account of physics. Since mathematics is an integral part of this higher myth, the utility of this myth for physical science is evident enough. In speaking of it nevertheless as a myth, I echo that philosophy of mathematics I alluded to earlier under the name of formalism. But an attitude of formalism may with equal justice be adopted toward the physical conceptual scheme, in turn, by the pure aesthete or phenomenalist. (1948/1953, 18)[18]

Quine concludes, clearly echoing Carnap, that, as far as the choice of ontology is concerned, "the obvious counsel is tolerance and an experimental spirit" (19).

Carnap, in a footnote to "Empiricism, Semantics, and Ontology," quotes this last remark with approval. In the same footnote, however, he observes that Quine's attitude toward ontological questions remains fundamentally different from his own, "because according to [Quine's] general conception there are no sharp boundary lines between logical and factual truth, between questions of meaning and questions of fact, between the acceptance of a language structure and the acceptance of an assertion formulated in the language" (1950a/1956, 215 n. 5). Carnap therefore recognizes that, despite their common commitment to a tolerant and pragmatic version of empiricism, Quine's rejection of the analytic/synthetic distinction implies a parallel rejection of Carnap's distinction between external and internal questions. Indeed, Quine (1948/1953, 17) had already anticipated this situation by concluding the penultimate paragraph quoted above as follows: "To whatever extent the adoption of any system of scientific theory may be said to be a matter of language, the same—but no more—may be said of the adoption of an ontology."

The final paragraph of the last section of "Two Dogmas of Empiricism" (1951, § 6, "Empiricism without the Dogmas") emphasizes that Carnap views the choice between different "language forms" or "scientific frameworks" as entirely pragmatic. The problem, in Quine's words, is that such "pragmatism leaves off at the imagined boundary between the analytic and the synthetic," so that, Quine continues, "[i]n repudiating such a boundary I espouse a more thorough pragmatism" (1951/1953, 46). In particular, according to the holistic empiricist epistemology Quine has just presented, *all* statements of science—statements of logic, mathemat-

ics, physics, or biology—equally face the "tribunal of experience" together. When faced with a "recalcitrant experience" in conflict with our total system, we then have a choice of where to make revisions: we normally try make them as close as possible to the periphery of our overall "web of belief," but, when the conflict is particularly acute and persistent, for example, we can also revise the most abstract and general parts of science, including even the statements of logic and mathematics, lying at the center of this web. In all such cases our criteria of choice are, in the end, purely pragmatic, a matter of continually adjusting our overall web of belief to the flux of sensory experience so as to achieve the simplest total system best adapted to that experience. Thus Quine concludes: "Each man is given a scientific heritage plus a continuing barrage of sensory stimulation; and the considerations which guide him in warping his scientific heritage to fit his continuing sensory promptings are, where rational, pragmatic" (ibid.).

The difference between Carnap's position and Quine's at this point is rather subtle. For, in a crucial section of *Logical Syntax* (1934, § 82, "The Language of Physics"), Carnap makes two claims that sound rather similar to Quine's. First, Carnap adopts a holistic view of theory testing he associates with the names of Duhem and Poincaré: "*the testing concerns* in principle not a single hypothesis, but *rather the whole system of physics as a system of hypotheses* (*Duhem, Poincaré*)" (1934/1937, 318 [246]). Second, Carnap also claims that, although when faced with an unsuccessful prediction of an observation sentence or "protocol-sentence" (what Quine would call a "recalcitrant experience") obtained by deduction from "certain physical principles," "some change must be undertaken in the system," we always have, nonetheless, a choice of precisely where to make the needed revisions (317 [245]): "one can, for example, change the P-rules [of physics] so that these [physical] principles are no longer valid; or one can suppose that the protocol-sentence is not valid; or one can even change the L-rules [of logic and mathematics] used in the deduction"—and, Carnap adds, "[t]here are no fixed rules for the kind of change that is to be chosen." Indeed, in this regard there is only a difference of degree between the logico-mathematical sentences and the sentences of empirical physics:

> No rule of the language of physics is definitively secured; all rules are laid down with the reservation that they may be changed depending on the circumstances, as soon as it seems expedient. This holds not only for the P-rules, but also the L-rules, including those of mathematics. In this respect, there are only differences in degree; it is more difficult to decide to give up certain rules than others. (318 [246])

Where, then, does Carnap's pragmatism, in Quine's words, "leave off"?

Immediately following the last quoted passage, Carnap draws the line this way:

> If, however, one assumes that a new protocol-sentence appearing within a language is always synthetic, then there is this difference between an L-valid, and therefore analytic, sentence $\mathbf{S}_1$ and a P-valid sentence $\mathbf{S}_2$, namely, that such a new protocol-sentence—independently of whether

> it is recognized as valid or not—can be, at most, L-incompatible with $\mathbf{S}_2$ but never with $\mathbf{S}_1$. In spite of this, it may come about that, under the inducement of new protocol-sentences, one changes the language so that $\mathbf{S}_1$ is no longer analytic. (318–19 [246])[19]

In other words, although both types of change in our total system induced by what Quine would call a "recalcitrant experience" are possible, and both involve broadly pragmatic considerations about the optimal overall arrangement of this total system, there is, for Carnap, a fundamental difference between the two: one involves changing the analytic sentences of the language, and thus the rules of logic and mathematics, whereas the other involves merely the synthetic sentences of empirical physics. Only the latter, on Carnap's view, have genuine factual content, and only the latter, accordingly, are the exclusive concern of the empirical scientist—here the physicist.

But now Carnap's position may easily begin to look arbitrary. If we admit that our ultimate epistemological criteria, for both analytic and synthetic sentences, reduce to broadly pragmatic considerations about the optimal overall arrangement of our scientific system, why in the world should we persist in maintaining a fundamental distinction between them? Are we not simply attaching arbitrary labels to different sentences, with no remaining epistemological significance? Are we not then ineluctably driven to the "more thorough," and apparently more radical, pragmatic empiricism defended by Quine?

It is just here, however, that the true philosophical radicalism of Carnap's position emerges. In 1936, at the very beginning of his semantical period, he published "Von der Erkenntnistheorie zur Wissenschaftslogik" (from epistemology to the logic of science), the point of which is to argue that *all* traditional epistemological projects, including his own earlier project in the *Aufbau*, must now be renounced as "unclear mixtures[s] of psychological and logical components" (1936, 36). Whereas the broadly pragmatic and holistic epistemology Quine develops under the rubric of "empiricism without the dogmas" is intended as a replacement for, or reinterpretation of, what Quine takes to be the epistemology of logical empiricism (i.e., the *Aufbau*), Carnap (despite Quine's persistent attempts to associate him with varieties of epistemological foundationalism) is breaking decisively with the entire epistemological tradition. *Wissenschaftslogik* is in no way concerned with either explaining or justifying our scientific knowledge by exhibiting its ultimate basis (whatever this basis might be); it is rather concerned, instead, with developing a new role for philosophy vis-à-vis the empirical sciences that will maximally contribute to scientific progress while, at the same time, avoiding all the traditional metaphysical disputes and obscurities which have constituted (and, according to Carnap, continue to constitute) serious obstacles to progress in both philosophy and the sciences.[20]

The first major publication of Carnap's semantical period was *Foundations of Logic and Mathematics*, appearing in English in 1939. Here Carnap presents an especially clear and detailed account of the application of logic and mathematics in empirical science and, in particular, the central importance of the analytic/synthetic

distinction therein. The application of logico-mathematical calculi in empirical science principally involves experimental procedures of counting and measurement (§§ 19, 23), whereby quantitatively formulated empirical laws yield testable statements about particular numerically specified outcomes via intervening logico-mathematical theorems. The scientific theory in question (in physics, for example) can thus be represented as an axiomatic system containing both logical and descriptive terms, where the logico-mathematical part of the system (containing only logical terms essentially) is, in its standard interpretation, analytic or L-true (in the semantical sense); and, because of the key role of numerical terms (including terms for real numbers) in the experimental procedure of measurement, this logico-mathematical part is most appropriately formulated as a higher-order system (§ 14, 18)—as opposed to an elementary or first-order logical system (§ 13)—containing a sufficient amount of arithmetic and analysis.[21]

Since Carnap is well aware, of course, that such higher-order logico-mathematical systems can and do lead to controversy, he immediately inserts a section on "The Controversies over 'Foundations' of Mathematics" (§ 20, compare § 15). Carnap's response to these controversies, not surprisingly, is the principle of tolerance, now formulated in a clearly semantical way:

> Concerning mathematics as a pure calculus there are no sharp controversies. These arise as soon as mathematics is dealt with as a system of "knowledge"; in our terminology, as an interpreted system. Now, if we regard interpreted mathematics as an instrument of deduction within the field of empirical knowledge rather than as a system of information, then many of the controversial problems are recognized as being questions not of truth but of technical expedience. The question is: Which form of the mathematical system is technically most suitable for the purpose mentioned? Which one provides the greatest safety? If we compare, e.g., the systems of classical mathematics and of intuitionistic mathematics, we find that the first is much simpler and technically more efficient, while the second is more safe from surprising occurrences, e.g., contradictions. (1939, 192–93)

As we have already seen, therefore, Carnap's main reason for regarding interpreted mathematics—arithmetic and analysis in their customary interpretations—as analytic or devoid of factual content is that doing so shifts our attention away from "correctness" or "truth" and toward the purely pragmatic or technical problem of language planning (compare note 13 above, together with the paragraph to which it is appended).

The case of geometry, however, is essentially different (§ 21). Here, although it is perfectly possible to give a logical or analytic interpretation of a geometrical calculus (within analysis, for example, in terms of real number coordinates), the standard or customary intepretation is descriptive or synthetic—as a theory of actual space. But the great lesson of Albert Einstein's general theory of relativity (§ 22) is that the geometry of actual (physical) space is an empirical question and, in particular, that it is therefore necessary sharply to distinguish between mathematical

geometry (given some logical interpretation) and physical geometry (under the customary descriptive interpretation). The latter, as Einstein clearly shows, is a posteriori and synthetic, whereas the former is a priori but purely analytic. Moreover, since physical geometry is a quantitative empirical theory like any other, the appropriate logico-mathematical framework within which it is to be axiomatized must also contain sufficient arithmetic and analysis. For Carnap, therefore, it follows from Einstein's work that the key difference between geometry, on the one side, and arithmetic and analysis, on the other, is that the former is synthetic (a posteriori) in its standard or customary interpretation while the latter are analytic.[22] And it is this situation Carnap has foremost in mind in his repeatedly expressed conviction, characteristic of his semantical period, that the distinction between analytic and synthetic truth "is indispensable for the logical analysis of science," so that "without [it] a satisfactory methodological analysis of science is not possible" (see 1942, xi; 1963b, 932; 1966, 257).[23]

The critical question, however, concerns what exactly Carnap means by a "satisfactory methodological analysis of science." And the point I most want to emphasize, once again, is that what Carnap has in mind is the logic of science ("the logical analysis of science"), not any *epistemological* project. In particular, Carnap is not concerned, as is Quine, with developing a very general empiricist conception of justification or evidence simultaneously embracing scientific knowledge, common-sense knowledge, and logico-mathematical knowledge. Carnap is specifically concerned with the mathematical physical sciences characteristic of the modern period, which are themselves only possible in the first place if we presuppose a certain amount of sophisticated modern mathematics—arithmetic and analysis—for their precise articulation and empirical testing (compare note 16 above). And the point of the logic of science, moreover, is not so much to describe the nature of science or scientific method as it has been practiced so far as to open up the possibility for a new kind of ongoing philosophical interaction with the sciences, which, in Carnap's eyes, promises to be particularly fruitful for both. Armed with the new logico-mathematical tools of modern logic (especially the new tools of metamathematics), the philosopher—that is, the logician of science—can participate, together with the scientists themselves, in the articulation, clarification, and development of formal inferential frameworks for articulating empirical theories and testing them by experimental methods. Unlike the empirical scientist, however, the logician of science, as such, is not concerned with then actually testing empirical theories within such inferential frameworks. Moreover, unlike the applied mathematician (who also develops formal methods for use in the empirical sciences), the logician of science has a characteristically philosophical interest in developing a systematic method for defusing unresolvable metaphysical controversies which, in Carnap's view, constitute an ever-present obstacle to progress in both the sciences and philosophy. Indeed, it was precisely this enterprise—and not any epistemological project—that Carnap already had in mind in *Logical Syntax* when he famously asserted (1934/1937, § 72, 279 [205]) that

"*Wissenschaftslogik takes the place of the inextricable tangle of problems one calls philosophy*."[24]

Carnap's mature philosophical position therefore provides us with an echo of Kant, insofar as Carnap simply (and rightly) takes it for granted that the kind of empirical knowledge paradigmatically exhibited by modern science is itself only possible in the first place on the basis of a prior formal structuring of our knowledge claims by modern mathematics. And Carnap views such prior structuring, accordingly, as empty of empirical content—just as Kant, for his part, had earlier asserted that the only objects of knowledge are empirical objects ("appearances"), so that mathematics, strictly speaking, has no actual objects of its own.[25] Finally, Carnap views his conception of logic and mathematics as the other side of the coin, as it were, of a characteristically philosophical enterprise aiming to defuse all unresolvable metaphysical controversies once and for all—just as Kant, for his part, had earlier held that his explanation of how synthetic a priori knowledge is possible is the other side of the coin of the claim that the resulting "critique of pure reason" finally puts philosophy "on the secure path of a science" and sets aside all "mock combats" of the traditional metaphysical schools (B xiv–xv). But precisely here, as we have seen, the parallels end. Kant's "critique of pure reason" is certainly an epistemological project, addressed to the question how synthetic a priori knowledge is possible. For Kant, moreover, the enterprise of transcendental philosophy, wherein we pose and answer this question, takes place at a fundamentally different level from the mathematical and empirical sciences themselves. The logic of science diverges from Kant in both of these respects; and, in this sense, it is a truly revolutionary and distinctively Carnapian project, with no antecedents in the history of philosophy at all.

Quine, as we have seen, never fully appreciated the deeply original character of Carnapian logic of science. He assimilated it, instead, to a program in traditional epistemology, one which begins with the Kantian question how synthetic a priori knowledge is possible, replaces it with the question "How is logical certainty possible?" and concludes with the "linguistic doctrine of logical truth" as the supposed answer to this epistemological question (see the paragraph to which note 12 above is appended). Moreover, Quine's own approach to an empiricist epistemology echoes the earlier empiricism of Locke and Hume, insofar as Quine, like Locke and Hume before him, is simply blind to the essential constitutive role of modern mathematics in making modern empirical physical science possible in the first place. Indeed, a particularly striking example of this occurs in Quine's 1946 lectures on Hume: "I believe more good than harm has come to subsequent philosophy from Locke's ignorance of mathematics; the hypnotic effect of contemplating the miracle of mathematical certainty was a danger to which Locke was immune[; and] the result was beneficial even for purposes of an eventual clearer understanding of the nature of mathematical knowledge itself" (187, see note 15 above, together with the paragraph to which it is appended). What Quine has in mind by this last remark, as we have seen, are the nominalist doubts about the very content of mathematics

first raised by Hume in the *Treatise*—doubts which, according to Quine, now have their counterpart in a more "sophisticated" nominalism formulated within modern (first-order) logic and soon to be published by Goodman and Quine (see the paragraph to which note 16 is appended).

Of course Quine very quickly abandoned this nominalist program, and he thereby decisively transcended, in particular, the extremely narrow limits of Humean empiricism. The resulting holistic and pragmatic epistemology is in fact distinctively Quinean, with no real antecedents in any earlier form of empiricism. Nevertheless, Quine's holistic empiricist account of logic and mathematics (which, according to Quine himself, is equivalent to the rejection of the analytic/synthetic distinction)[26] is the most distinctive and original feature of Quine's mature epistemology, and this account, in turn, is Quine's response, as we have seen, to the failure of his early nominalism (see note 17 above, together with the paragraph to which it is appended). So there is still a sense in which even Quine's mature epistemology—despite its undoubtedly much greater subtlety and power—provides us with an echo of Hume.

From Carnap's point of view, however, Quine's mature epistemology represents just as much of an externally motivated, purely philosophical intrusion into the ongoing progress of empirical science and the logic of science as Quine's earlier defense of nominalism. Accordingly, Carnap's impassioned admonition at the very end of "Empiricism, Semantics, and Ontology" still applies:

> The acceptance or rejection of abstract linguistic forms, just as the acceptance or rejection of any other linguistic forms in any branch of science, will finally be decided by their efficiency as instruments, the ratio of the results achieved to the amount and complexity of the efforts required. To decree dogmatic prohibitions of certain linguistic forms instead of testing them by their success or failure in practical use, is worse than futile; it is positively harmful because it may obstruct scientific progress. The history of science shows examples of such prohibitions based on prejudices deriving from religious, mythological, or other irrational sources, which slowed up the developments for shorter or longer periods of time. Let us learn from the lessons of history. Let us grant to those who work in any special field of investigation the freedom to use any form of expression which seems useful to them; the work in the field will sooner or later lead to the elimination of those forms which have no useful function. *Let us be cautious in making assertions and critical in examining them, but tolerant in permitting linguistic forms.* (1950a/1956, 221)

Here Carnap has specifically in mind Quine's empiricist doubts about the use of abstract entities (properties, modalities, intensions, and the like) in semantic theory, but the moral is much more general. Quine's rejection of the analytic/synthetic distinction on the basis of a holistic version of empiricist epistemology rests, from Carnap's point of view, on nothing more nor less than a fundamentally "irrational" *philosophical* "prejudice"— and, in particular, on the need for a more liberal empiricist response to the same qualms about the epistemic status of mathematics that

had originally motivated Quine's earlier nominalism.[27] This form of empiricism, if adopted, cuts off the logic of science at its root. We thereby permanently cut ourselves off, Carnap believed, from the one remaining possibility for an ongoing progressive interaction between philosophy and the empirical sciences, and, what is worse, we reopen the door to the intractable obscurities and fruitless controversies of traditional metaphysics. Posterity will judge whether Carnap was right.

NOTES

An earlier version of this paper was presented on April 7, 2006, as the fifth annual Howard Stein Lecture in the Philosophy of Science at the University of Chicago. I am especially indebted to discussions on this occasion with Howard Stein and André Carus. The conclusion for which I argue is basically the same as one already argued (in relation to Quine) by Stein in his important paper "Was Carnap Entirely Wrong, After All?" (1992, 275): "that Carnap is a far subtler and a far more interesting philosopher than he is usually taken to be." But my argument is complementary to Stein's. Whereas Stein (1992) concentrates on the first public airing of the Carnap/Quine debate in 1950–51, and on its aftermath, I concentrate on developments leading up to these events—on Carnap's intellectual development from his student days at Jena to his mature philosophical position, and on Quine's development from his self-professed "discipleship" under Carnap in the early 1930s to what he calls his completed "apostasy" in "Two Dogmas of Empiricism."

1. Bruno Bauch was a leading member of the Southwest School of neo-Kantianism founded by Wilhelm Windelband. At Jena he was a close colleague and associate of Gottlob Frege's. After the Great War, for example, Frege joined Bauch's conservative *Deutsche Philosophische Gesellschaft* and published his last three papers ("Logical Investigations") in the official journal of this society, *Beiträge des deutschen Idealismus*. For Bauch and his relationship to Frege, see Sluga (1980, 1993). For Carnap's relationship to Bauch and neo-Kantianism more generally—including discussions of *Der Raum*—see Richardson (1998), Friedman (2000).
2. For extended discussion of this "formal structuring" by modern mathematical logic in the *Aufbau,* see Friedman (1987/1999, 1992a/1999), Richardson (1998); for its relationship to Kantian and neo-Kantian ideas see, in addition, Sauer (1985).
3. As we shall see below (note 22, together with the paragraph to which it is appended) "logico-mathematical truth," for Carnap, does not include geometry (in its customary interpretation).
4. See Carnap's official formulation of the principle of tolerance in § 17 of *Logical Syntax* (1934/1937, 52 [45]): "*In logic there is no morality*. Everyone may construct his own logic, i.e., his own form of language, as he wishes. Only, if he wants to discuss it with us, he must clearly indicate how he wishes to construct it, [and he must] give syntactic rules instead of philosophical arguments." All translations from *Logical Syntax* are my own—the page numbers in brackets are those of the (1934) German original. (Otherwise, I follow the convention on citations involving multiple editions of note 7 below.)
5. See, for example, Friedman (1999, chapter 9, especially §§ 6–7).
6. This understanding of the choice between classical mathematics and intuitionism is suggested by Carnap's reply to Evert Beth in the Schilpp volume. Carnap first explains how he understands, in general, the use of a metalanguage, whether syntactic or (as in his post-*Syntax* period) semantic (1963b, 929): "Since the metalanguage *ML* serves as a means of communication between the author and the reader or among participants in a discussion, I always presupposed, both in syntax and in semantics, that a fixed interpretation of *ML*, which is shared by all participants, is given. This interpretation is usually not formulated explicitly; but since *ML* uses English words, it is assumed that these words are understood in their ordinary senses." And it is clear, from the context, that the "fixed interpretation" in question involves the standard interpretation of classical arithmetic. Moreover, Carnap then applies this point, in particular, to the choice between classical

mathematics and intuitionism (929–30): "It seems to be obvious that, if two men wish to find out whether or not their views on certain objects agree, they must first of all use a common langauge to make sure that they are talking about the same objects. It may be the case that one of them can express in his own language certain convictions which he cannot translate into the common language; in this case he cannot communicate these convictions to the other man. For example, a classical mathematician is in this situation with respect to an intuitionist or, to a still higher degree, with respect to a nominalist."

7. When I give a citation listing both an earlier and a later edition, the page reference is to the later edition: in this case, the reprinting of Quine (1971) in Creath (1990).
8. Quine (1986, 16) describes "Truth by Contention" as containing "the seeds of my apostasy" from Carnapian discipleship. Quine (1971/1990, 463) begins by describing Carnap as "a towering figure," "the dominant figure in philosophy from the 1930's onward." Quine then describes *Logical Syntax*, in particular, as follows (463–64): "The book is a mine of proof and opinion on the philosophy of logic and the logic of philosophy. During a critical decade it was the main inspiration of young scientific philosophers. It was the definitive work at the center, from which the waves of tracts and popularizations issued in ever widening circles. Carnap more than anyone else was the embodiment of logical positivism, logical empiricism, the Vienna Circle."
9. Quine (1986, 16) describes these three lectures, in contrast to "Truth by Contention," as "uncritical." The lectures are published in Creath (1990, 45–103)—page references in the text are to this volume.
10. It is important to note, however, as André Carus has emphasized to me, that the first draft of *Logical Syntax*—which Quine (1986, 12) reports he read in 1931 "as it issued from Ina Carnap's typewriter"—also does not mention the principle of tolerance or the dispute between classical and intuitionist mathematics. So this fundamental breakthrough, for Carnap, was made between the first draft and the published version of 1934: see Awodey and Carus (forthcoming) for discussion of the emergence of the principle of tolerance between 1931 and 1934. Nevertheless, it appears that Quine's exposure to the first draft of *Logical Syntax* decisively shaped his own understanding of Carnap ever after.
11. This paper was written in 1954 for inclusion in the Carnap Schilpp volume; and I cite it from this volume—here Quine (1963, 385). It appears, by this time, that Quine had begun to recognize that his construal of Carnap does not perfectly match Carnap's own views, for he begins with a striking disclaimer (ibid.): "My dissent from Carnap's philosophy of logical truth is hard to state and argue in Carnap's terms. This circumstance perhaps counts in favor of Carnap's position. At any rate, a practical consequence is that, though the present essay was written entirely for this occasion, the specific mentions of Carnap are few and fleeting until well past the middle. It was only by providing thus elaborately a background of my own choosing that I was able to manage the more focussed criticisms in the later pages. Actually, parts also of the earlier portions correspond to what I think to be Carnap's own orientation and reasoning; but such undocumented points are best left unattributed." This disclaimer does not appear in later reprintings, e.g., in Quine (1966a).
12. "Truth by Convention" was first published in 1936 in a volume in honor of A. N. Whitehead. Much of the text corresponds rather closely to passages from the first lecture, on "The *A Priori*," from 1934. Section III, in particular, makes it clear that the Kantian "character of an inward necessity" is precisely what needs to be explained. Quine then raises doubts about whether the idea of linguistic convention (which had apparently satisfied him in 1934—see the paragraph to which note 9 above is appended) does, after all, provide the needed explanation.
13. Compare note 4 above, together with the paragraph to which it is appended. See also Carnap's discussion of "Language Planning" in § 11 of his autobiography. Carnap reports that this idea "did not immediately occur to [him]" when he first studied logic with Frege, but rather evolved gradually (1963a, 68): "Only later, when I became acquainted with the entirely different language of *Principia Mathematica*, the modal logic of C. I. Lewis, the intuitionistic logic of Brouwer and Heyting, and the typeless system of Quine and others, did I recognize the infinite variety of possible language forms. On the one hand, I became aware of the problems connected with the finding of language forms suitable for given purposes; on the other hand, I gained the insight that one cannot speak of 'the correct language form', because various forms have different advantages in different respects. The latter insight led me to the principle of tolerance. Thus, in time, I came to recognize that our task is one of *planning* forms of languages."

14. This is the topic of Gregg Frost-Arnold's doctoral dissertation in the Department of History and Philosophy of Science at the University of Pittsburgh (2006)—which will appear as Frost-Arnold (forthcoming)—and of Mancosu (2005).
15. These have recently been published as Quine (2003)—page references are to this article. I am indebted to Graciela De Pierris for calling my attention to these lectures and for discussing them with me.
16. Carnap's conception of quantificational logic—from the *Aufbau* on—is a higher-order version of the simple theory of types, which Carnap consistently equates with the set theory he learned from Abraham Fraenkel: for discussion, see Reck (2007). By contrast, Quine (1986, 14) reports that already in 1932–33 he "felt a nominalist's discontent with classes." Moreover, Quine rejects higher-order quantification—as even less clear than (first-order) quantification over classes—beginning with "Whitehead and the Rise of Modern Logic" (1941).
17. Quine (1986, 26) explains the relationship between his earlier "constructive nominalism" and the position of "On What There Is" (and later works) as follows: "Our project [of Goodman and Quine] was good, I think, and well begun. But our paper created a stubborn misconception that I am an ongoing nominalist. Readers try in the friendliest ways to reconcile my writings with nominalism. They try to read nominalism into 'On What There Is' and find, or should find, incoherence. Nominalism was our position in 'Steps toward a Constructive Nominalism'. It was the statement of our problem. It would be my actual position if I could make a go of it. But when I quantify irreducibly over classes, as I usually do, I am not playing the nominalist. Quite the contrary."
18. Quine (1948/1953, 15) makes it clear that the attitude of formalism in question includes the nominalism earlier developed by Goodman and himself in 1947.
19. See again note 4 above for the page numbers in brackets. In the last quotation, the Smeaton translation inadvertently has "incompatible" in place of "L-incompatible."
20. For discussion of this important paper, see Richardson (1996). More generally, in stressing the fundamental differences between Carnap and Quine in their understanding of both "epistemology" and "empiricism" my argument has considerable overlap with Richardson (1997).
21. This is Carnap's reason for consistently taking higher-order logic (or, equivalently, set theory) as part of the formal or inferential framework within which empirical testing proceeds—and it is this that most clearly and sharply distinguishes Carnap's conception of logic and mathematics from Quine's (compare note 16 above). In particular, Carnap cannot accept Quine's holistic conception of empirical testing, characteristic of his works from "On What There Is" onward (compare note 17 above, together with the paragraph to which it is appended), according to which (first-order) set theory, like physics, is adopted on empirical grounds—because a framework of real numbers, for Carnap, is *presupposed* by all such testing.
22. This central difference, in Carnap's view, between arithmetic and analysis on the one side and geometry on the other, has not been sufficiently appreciated. Thus, for example, Carnap's discussion of the analyticity of logic and mathematics in his autobiography (1963a, 46–49) explicitly excludes geometry (49): "In the foregoing, the term 'mathematics' is meant to include the theory of numbers of various kinds and their functions, furthermore abstract fields, e.g., abstract algebra, abstract group theory, and the like, but to exclude geometry"—where Carnap then goes on to emphasize the distinction between mathematical and physical geometry. In thus taking geometry (in its customary interpretation) to be synthetic rather than analytic, Carnap retains an echo of the original Kantian conception, of Frege's conception, and of his own early position in *Der Raum*. Unlike all of these earlier views, however, Carnap now takes Einstein to have conclusively shown that the geometry of physical space is entirely a posteriori.
23. As Steve Awodey has pointed out, this is stated especially clearly in Carnap (1966, 257–58): "In my opinion, a sharp analytic/synthetic distinction is of supreme importance for the philosophy of science. The theory of relativity, for example, could not have been developed if Einstein had not realized that the structure of physical space and time cannot be determined without physical tests. He saw clearly the sharp dividing line that must always be kept in mind between pure mathematics, with its many types of logically consistent geometries, and physics, in which only experiment and observation can determine which geometries can be applied most usefully to the physical world. This distinction between analytic truth (which includes logical and mathematical truth) and factual truth is equally important today in quantum theory, as physicists explore the nature of

elementary particles and search for a field theory that will bind quantum mechanics to relativity." In asserting that the (general) theory of relativity "could not have been developed" without an understanding of the sharp distinction between mathematical and physical geometry, Carnap is simply paraphrasing Einstein's own remarks to this effect in his celebrated paper "Geometry and Experience" (1921).

24. From the mid-1940s onward, during the last twenty-five years of his long and fruitful career, Carnap worked principally on a new project in the logico-mathematical analysis of empirical science which he called the logical foundations of probability: see, e.g., Carnap (1950b, 1952). He here turned his attention away from the more traditional deductive inferential frameworks on which he had so far primarily focused and toward the newer probabilistic and statistical frameworks now being constructed and applied with ever-increasing frequency in the physical, biological, and social sciences. Here, once again, Carnap, as logician of science par excellence, aimed fruitfully to engage with the scientists in question in clarifying existing statistical methods and developing new ones while, at the same time, dissolving residual metaphysical controversies—about the "true nature" of probability, objective or subjective—which still threaten scientific progress. Thus, on the more philosophical side, Carnap's sharp distinction between two different concepts of probability—logical or epistemic (degree of confirmation) and empirical or physical (long-run relative frequency)—serves, in his eyes, to dissolve precisely this metaphysical controversy; and, on the more technical side, Carnap's own positive contributions to the theory of statistical inference, although somewhat outside of the mainstream, do interact fruitfully with work by statisticians in the ongoing development of our formal inductive methods. For this last point, see Zabell (2007).
25. This point plays a central role, for Kant, in § 22 of the second edition Transcendental Deduction (B146–47, my translation): "Sensible intuition is either pure intuition (space and time) or empirical intuition of that which is immediately represented in space and time as actual, through sensation. By determination of the former we can acquire a priori cognitions of objects (in mathematics), but only according to their form; whether there can be given things that must be intuited in this form remains still unsettled thereby. Therefore, all mathematical concepts are in themselves not cognitions, except in so far as one presupposes that there are things which can only be presented to us in accordance with the form of this pure sensible intuition." For discussion, see Friedman (1992b, chapter 2, § I).
26. Quine (1951/1953, 41) famously claims that "the two dogmas are, indeed, at root identical." The "second dogma" is what Quine calls "reductionism"—according to which each statement of science has its own distinctive empirical content. Opposed to this is Quine's contention that "the unit of empirical significance is the whole of science" (42), which ushers in the immediately following discussion of his distinctive holistic form of empiricism in § 6.
27. These qualms, in Quine's case, are motivated more by his characteristic response to the situation in the foundations of modern mathematical logic and set theory than by any independent concern with properly empirical knowledge—in particular, by his ongoing worries about classes and higher-order logic (compare note 16 above), resulting in a clear preference for first-order logic as the inferential framework of science. This leads to the idea that (first-order) set theory is a scientific theory like any other, which is thus empirically testable on broadly holistic grounds. For the sharp contrast with Carnap here, see note 21 above: Carnap's view of logic and mathematics, as we have seen, is rather motivated by a primary concern for their application in *empirical* knowledge. There is considerable irony in the circumstance that Quine (the epitome of contemporary naturalism and empiricism) has almost no interest at all in any properly empirical science, whereas Carnap (the epitome of what may look like regressive apriorism) is primarily oriented in precisely this direction.

REFERENCES

Awodey, S., and A. W. Carus. 2007. "Carnap's Dream: Gödel, Wittgenstein, and *Logical Syntax*." *Synthese* 159, 23-45.

Carnap, Rudolf. 1922. *Der Raum. Ein Beitrag zur Wissenschaftslehre*. Berlin: Reuther and Reichard.
Carnap, Rudolf. 1928. *Der logische Aufbau der Welt*. Berlin: Weltkreis. Second edition. Hamburg: Meiner, 1961. Translated from the second edition by Rolf George as *The Logical Structure of the World*. Berkeley and Los Angeles: University of California Press, 1967.
Carnap, Rudolf. 1934. *Logische Syntax der Sprache*. Wien: Springer. Translated by Amethe Smeaton as *The Logical Syntax of Language*. London: Kegan Paul, 1937.
Carnap, Rudolf. 1936. "Von der Erkenntnistheorie zur Wissenschaftslogik." *Actes du Congrès International de Philosophie Scientifique*. Vol. 1. Paris: Hermann, 36–41.
Carnap, Rudolf. 1939. *Foundations of Logic and Mathematics*. In *International Encyclopedia of Unified Science*. Vol. 1, Part 1. Chicago: University of Chicago Press, 139–213.
Carnap, Rudolf. 1942. *Introduction to Semantics*. Cambridge, Mass.: Harvard University Press.
Carnap, Rudolf. 1950a. "Empiricism, Semantics, and Ontology." *Revue Internationale de Philosophie* 11, 20–40. Reprinted in Carnap (1956), 205–29.
Carnap, Rudolf. 1950b. *Logical Foundations of Probability*. Chicago: University of Chicago Press.
Carnap, Rudolf. 1952. *The Continuum of Inductive Methods*. Chicago: University of Chicago Press.
Carnap, Rudolf. 1956. *Meaning and Necessity*. Second edition. Chicago and London: University of Chicago Press.
Carnap, Rudolf. 1963a. "Intellectual Autobiography." In Schilpp (1963), 3–84.
Carnap, Rudolf. 1963b. "Replies and Systematic Expositions." In Schilpp (1963), 859–1013.
Carnap, Rudolf. 1966. *Philosophical Foundations of Physics: An Introduction to the Philosophy of Science*. Edited by Martin Gardner. New York: Basic Books.
Creath, Richard, ed. 1990. *Dear Carnap, Dear Van: The Quine-Carnap Correspondence and Related Work*. Berkeley and Los Angeles: University of California Press.
Einstein, Albert. 1921. *Geometrie und Erfahrung. Erweiterte Fassung des Festvortrages gehalten an der Preussischen Akademie der Wissenschaft zu Berlin am 27. Januar 1921*. Berlin: Springer. Translated as "Geometry and Experience." In G. Jeffrey and W. Perrett, eds. *Sidelights on Relativity*. London: Methuen, 1923, 27–55.
Friedman, Michael. 1987. "Carnap's *Aufbau* Reconsidered." *Noûs* 21, 521–45. Reprinted in Friedman (1999), 89–113.
Friedman, Michael. 1992a. "Epistemology in the *Aufbau*." *Synthese* 93, 15–27. Reprinted in Friedman (1999), 114–62.
Friedman, Michael. 1992b. *Kant and the Exact Sciences*. Cambridge, Mass.: Harvard University Press.
Friedman, Michael. 1999. *Reconsidering Logical Positivism*. Cambridge: Cambridge University Press.
Friedman, Michael. 2000. *A Parting of the Ways: Carnap, Cassirer, and Heidegger*. Chicago and La Salle: Open Court.
Friedman, Michael, and Richard Creath, eds. 2007. *The Cambridge Companion to Carnap*. Cambridge: Cambridge University Press.
Frost-Arnold, Gregg. 2006. *Carnap, Tarski, and Quine's Year Together: Logic, Science, and Mathematics*. Doctoral dissertation. University of Pittsburgh.
Frost-Arnold, Gregg. Forthcoming. *Carnap, Tarski, and Quine in Conversation: Discussions at Harvard, 1940–1941*. Chicago and La Salle: Open Court.
Giere, Ronald, and Alan Richardson, eds. 1996. *Origins of Logical Empiricism*. Minneapolis: University of Minnesota Press.
Goodman, Nelson. 1951. *The Structure of Appearance*. Cambridge, Mass.: Harvard University Press.
Goodman, Nelson. 1963. "The Significance of *Der logische Aufbau der Welt*." In Schilpp (1963), 545–48.
Goodman, Nelson, and W. V. Quine. 1947. "Steps toward a Constructive Nominalism." *Journal of Symbolic Logic* 12, 97–122.
Mancosu, Paolo. 2005. "Harvard 1940–41: Tarski, Carnap and Quine on a Finitist Language for Mathematics and Science." *History and Philosophy of Logic* 26, 327–57.
Quine, W. V. 1936. "Truth by Convention." In O. H. Lee, ed. *Philosophical Essays for A. N. Whitehead*. New York: Longmans, 90–124. Reprinted in Quine (1966a), 70–99.
Quine, W. V. 1941. "Whitehead and the Rise of Modern Logic." In Schilpp (1941), 125–63. Reprinted in Quine (1966b), 3–36.
Quine, W. V. 1948. "On What There Is." *Review of Metaphysics* 2, 21–38. Reprinted in Quine (1953), 1–19.
Quine, W. V. 1951. "Two Dogmas of Empiricism." *Philosophical Review* 60, 20–43. Reprinted in Quine (1953), 20–46.

Quine, W. V. 1953. *From a Logical Point of View*. Cambridge, Mass.: Harvard University Press.
Quine, W. V. 1963. "Carnap and Logical Truth." In Schilpp (1963), 385–406. Reprinted in Quine (1966a), 100–25.
Quine, W. V. 1966a. *The Ways of Paradox and Other Essays*. New York: Random House.
Quine, W. V. 1966b. *Selected Logic Papers*. New York: Random House.
Quine, W. V. 1969. "Epistemology Naturalized." In *Ontological Relativity and Other Essays*. New York: Columbia University Press, 69–90.
Quine, W. V. 1971. "Homage to Rudolf Carnap." *PSA 1970: In Memory of Rudolf Carnap: Proceedings of the 1970 Biennial Meeting, Philosophy of Science Association*. Edited by Roger Buck and Robert Cohen. Boston Studies in the Philosophy of Science. Vol. 8. Dordrecht: Reidel, xxii–xxv. Reprinted in Creath (1990), 463–66.
Quine, W. V. 1986. "Autobiography of W. V. Quine." In Schilpp (1986), 3–46.
Quine, W. V. 2003. "1946 Lectures on David Hume's Philosophy." Edited by James G. Buickerood. *Eighteenth-Century Thought* 1, 171–254.
Reck, Erich. 2007. "Carnap and Modern Logic." In Friedman and Creath (2007), 176-99.
Richardson, Alan. 1996. "From Epistemology to the Logic of Science: Carnap's Philosophy of Empirical Knowledge in the 1930s." In Giere and Richardson (1996), 309–32.
Richardson, Alan. 1997. "Two Dogmas about Logical Empiricism: Carnap and Quine on Logic, Epistemology, and Empiricism." *Philosophical Topics* 25, 145–68.
Richardson, Alan. 1998. *Carnap's Construction of the World: The Aufbau and the Emergence of Logical Empiricism*. Cambridge: Cambridge University Press.
Sauer, Werner. 1985. "Carnap's *Aufbau* in kantianischer Sicht." *Grazer philosophische Studien* 23, 19–35.
Schilpp, Paul, ed. 1941. *The Philosophy of A. N. Whitehead*. La Salle: Open Court.
Schilpp, Paul, ed. 1963. *The Philosophy of Rudolf Carnap*. La Salle: Open Court.
Schilpp, Paul, ed. 1986. *The Philosophy of W. V. Quine*. La Salle: Open Court.
Sluga, Hans. 1980. *Gottlob Frege*. London: Routledge.
Sluga, Hans. 1993. *Heidegger's Crisis: Philosophy and Politics in Nazi Germany*. Cambridge, Mass.: Harvard University Press.
Stein, Howard. 1992. "Was Carnap Entirely Wrong, After All?" *Synthese* 93, 275–95.
Zabell, S. L. 2007. "Carnap on Probability and Induction." In Friedman and Creath (2007), 273-94.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Kant and the Problem of Experience

Hannah Ginsborg
University of California, Berkeley

As most of its readers are aware, the *Critique of Pure Reason* is primarily concerned not with empirical, but with *a priori* knowledge. For the most part, the Kant of the first *Critique* tends to assume that experience, and the knowledge that is based on it, is unproblematic. The problem with which he is concerned is that of how we can be capable of substantive knowledge independently of experience. At the same time, however, the notion of experience plays a crucial role in the central arguments of the *Critique.* For, again as most readers of the *Critique* know, Kant aims to show how we can have synthetic *a priori* knowledge by showing that the categories, or pure concepts of the understanding, are conditions of the possibility of experience. This means that, whether or not Kant is concerned with the notion of experience for its own sake, his account of *a priori* knowledge carries with it at least some commitments regarding the character of experience. If the account of *a priori* knowledge is to be successful, then experience has to be the kind of thing for which the categories can, in principle, serve as conditions of possibility. More specifically, experience must involve not only the senses, but also thought or understanding, for otherwise the claim that it presupposes a certain specific set of concepts is simply unintelligible. And indeed at least some parts of the *Critique,* in particular the so-called subjective deduction in the first edition, and the briefer passages which correspond to it in the second edition, seem to be intended to show how this requirement is met. That is, they are concerned not so much with showing that experience is governed by the categories, as with elaborating a view of experience as involving conceptual activity *überhaupt*.

If Kant's project in the *Critique of Pure Reason* is to succeed, then, it must be possible to arrive at a coherent interpretation of his notion of experience. But as I shall go on to argue, this is very hard to do. The idea that experience involves the activity of understanding raises a large problem, which can be put formulaically in terms of an apparent conflict between the "spontaneity" characteristic of understanding, and the "receptivity" characteristic of sense perception. How can experience involve the activity of thinking or judging, while still being a means through which objects can be "given" to us? While some aspects of this problem have indeed been directly addressed in the secondary literature in Kant, the fact that Kant's own focus in the *Critique* is on *a priori* rather than empirical knowledge has meant that the problem as a whole is often either ignored, or touched on only in passing.[1] Yet to the extent—and I think it is a large one—that Kant's views on the possibility of *a priori* knowledge depend on the coherence of his account of experience, it is important for understanding his avowed project that we have a clear grasp of the problem facing that account. My main aim in this paper, then, is to articulate the problem and to give a sense of its pervasiveness. I show first, in sections I–II, how the problem impinges on various traditional interpretations of Kant's notion of experience, and then go on in section III to consider, and offer reasons for rejecting, a less traditional solution to the problem offered by John McDowell. But while my primary concern is to clarify the problem and to show that it presents a genuine threat to the coherence of Kant's view, I end on a more constructive note in section IV by sketching, very briefly, an alternative approach with what I hope are better prospects for overcoming it.

I.

In the passage from the second edition preface where he compares his approach to *a priori* knowledge with the Copernican hypothesis in astronomy, Kant says that "experience itself is a kind of cognition which requires understanding" (Bxvii).[2] This conception of experience, he makes clear, is crucial to showing how objects given in experience can be known by us *a priori*. For as he goes on immediately to explain, understanding has "a rule which I must presuppose *a priori* in myself even before objects are given to me" (ibid.) and which, he says, is expressed in *a priori* concepts with which the objects of experience must necessarily agree. If experience requires understanding, then it must be governed by the *a priori* rules to which the understanding is subject, and consequently the objects given to us in experience must conform to concepts which express those rules.

The idea that experience requires understanding is rightly regarded as a fundamental insight of Kant's view. But its centrality to Kant's thinking, and its consequent familiarity to Kant scholars, should not blind us to a seeming paradox it presents. On the one hand, the understanding is characterized by Kant as a capac-

ity for making judgments: "we can reduce all acts of the understanding to judgments, so that the understanding in general can be represented as a capacity for judging [*Vermögen zu urteilen*]" (A69/B94). Having experience, then, would seem on the face of it to be a matter of making judgments; something which Kant makes explicit when he notes, on his copy of the first edition of the *Critique*, that "experience consists of judgments" (23:24–25, reprinted in Kant 1998, 202). And in making a judgment one is, again on the face of it, active as opposed to passive, or in Kant's terms spontaneous as opposed to receptive: one is not merely receiving an impression from the world, or having the world affect one in a certain way, but rather committing oneself to, or taking a stand on, the world's being a certain way. But, on the other hand, the notion of experience is often seen as contrasting with that of judgment, and, correspondingly as connoting a state in which one is passive or receptive as opposed to active or spontaneous. Experience, at least in the sense associated with the empiricist tradition, is the means through which we are confronted with the objects about which we make judgments.[3] Objects are given to us in experience, and while experience can thus serve as a basis for forming a judgment about how those objects are, that judgment involves an active exercise of mind which goes beyond the mere reception of data which characterizes experience itself. To the extent, then, that Kant intends to maintain this traditional conception of experience, it is hard to see how he can also take it to require understanding. For that would seem to imply that experience involves actively committing ourselves to how things are, as opposed to passively registering impressions which might or might not serve as a basis for committing ourselves through an act of judgment.

A straightforward approach to this apparent paradox is to deny that Kant's use of the term experience, at least in the relevant context, is intended to mark a continuity with the notion of experience as understood by the empiricists. Experience should not be identified with the perceptual impressions through which objects are given to us but rather with the empirical judgments we make on the basis of these perceptual impressions. In other words it should not be identified with what we might intuitively think of as my "perceptual experience" of, say, a green cube in front of me—the visual impression which is made on me by the green cube—but rather with the perceptually based judgment or recognition that there is a green cube in front of me. Thus when Kant says that experience requires understanding, he is making the relatively uncontroversial claim that our empirical judgments require understanding, and not the more radical claim that we require understanding in order for objects to be presented to us perceptually. An approach of this kind might be supported by appeal to Lewis White Beck's distinction between two senses in which Kant uses the term "experience," one corresponding to what Beck calls "Lockean experience" or "L-experience," the other corresponding to "Kantian experience" or "K-experience." L-experience is "'the raw material of sensible impressions,' the manifold of apprehensions or Lockean ideas without the conceptual and interpretative activities of the mind" (1978, 40). But K-experience is "knowledge of objects" (ibid.), and it is this experience, rather than L-experience, which is governed

by the categories and which, *a fortiori*, requires understanding. Now while Beck himself equates K-experience with "knowledge" rather than "judgment," it is at least a consequence of the distinction that experience in the full-blooded Kantian sense is a matter of making judgments as opposed to receiving sensory impressions, and that it is only for experience so conceived that the understanding is required. And the contrast between K-experience and "Lockean" ideas makes explicit that the notion of experience in this full-blooded Kantian sense is not intended to be continuous with that of perceptual experience as understood by the empiricists.

But there are a number of considerations that make this approach unattractive. Perhaps the most significant is that it threatens to trivialize Kant's central project in the *Critique*, or at least to diminish its interest and importance.[4] Kant's argument that the categories are conditions of the possibility of experience would be disappointingly limited in scope if it could show only that the categories were required for empirical thought and judgment, and not for the perceptual experience on which empirical judgments are based. Intuitively, the appeal of Kant's argument is that it promises to show not only that we need certain *a priori* concepts in order to think about the objects presented to us in perception, but that these concepts somehow have applicability to those objects independently to, and prior to, our forming judgments about them. If the argument is to retain this appeal, it must show the categories to be required not only for us to be able to make the judgment that, say, there is a green cube in front of us, but for us so much as to have the experience through which the green cube is given to us. For otherwise Kant seems to lack any justification for claiming that the categories have application to the green cube itself—that the green cube is a substance enduring through time and standing in causal relations—as opposed to claiming merely that they are a subjective condition of our being able to make judgments and entertain thoughts about the green cube.

Some commentators have claimed that Kant does not in fact want to argue that the categories apply to objects merely insofar as they are perceptually given to us. The best evidence for this claim is a passage from a section of the *Critique* that is intended to set up the problem that the Transcendental Deduction is supposed to address. Here Kant describes a "difficulty" in showing that the pure concepts necessarily relate to objects, a difficulty which arises because "objects can . . . appear to us without necessarily having to be related to functions of the understanding, and therefore without the understanding's containing their conditions *a priori*" (A90/B122): appearances, he goes on to say, "could after all be so constituted that the understanding would not find them in accordance with the conditions of its unity" (A90/B123). Kant seems here to be denying quite categorically that the categories, and *a fortiori* understanding, are required in order for objects to be perceptually given to us. And if this denial is taken at face value, then there is no reason to take understanding to be required for anything more than empirical judgments about the objects that are perceptually given to us; certainly there is no need to suppose that perceptual experience, conceived as prior to such judgments, also involves the understanding.[5]

However, the context suggests that this passage is not to be taken as representing Kant's considered view, for he goes on to say that, if appearances were so constituted, then "everything would lie in such confusion that, e.g. in the succession of appearances nothing would offer itself that would furnish a rule of synthesis and thus correspond to the concept of cause and effect, so that the concept would therefore be wholly empty, null, and without significance" (ibid.). And this would appear to be just the kind of possibility that the Deduction is supposed to rule out. The idea that Kant eventually means to deny the possibility described in the passage is confirmed by the argument at §26 of the Deduction, which, for all its obscurity, does seem intended to show that whatever is given to us as part of a unified spatiotemporal manifold must necessarily be subject to the categories.[6] And this in turn seems to suggest that, at least to the extent that the objects of our perception are perceived as standing in spatial and temporal relations to one another, the understanding is required for perceiving them, and not just for making judgments about them.

A closely related reason for rejecting what I am calling the "straightforward" approach is that Kant's account of the "synthesis of imagination" in both editions of the *Critique* seems intended to make the point that synthesis or combination is required not just for what we would pretheoretically describe as making judgments about the world, but for the mere perception or apprehension of it. The point is brought out, for example, in Kant's remark that psychologists have not yet recognized—Kant, himself, by implication, being the first to do so—"that imagination is a necessary ingredient of perception itself" (A120n.). In order for us to have perceptual images of objects, "something more than the receptivity of impressions is required, namely a function for the synthesis of them" (ibid.). And while Kant tends to be less explicit about this in the first than in the second edition, his considered view seems to be that all synthesis or combination, even that which is in the first instance ascribed to the imagination, is governed by the understanding: "the combination [*Verbindung*] (*conjunctio*) of a manifold in general can never come to us through the senses . . . for it is an act [*Aktus*] of the spontaneity of the power of representation, and, since the latter must be called understanding, to distinguish it from [*zum Unterschiede von*] sensibility, all combination, whether we are conscious of it or not, whether it is a combination of the manifold of intuition or of several concepts . . . is an act of the understanding [*Verstandeshandlung*], to which we would assign the general title *synthesis*" (B130). It is, as he puts it in a note to §26, "one and the same spontaneity which, there [viz., in the synthesis of apprehension] under the name of imagination, and here [viz., in the synthesis of apperception] under the name of understanding, brings combination into the manifold of intuition" (B162n.). And it is in part by identifying the activity of imagination in perception with the spontaneity of understanding that he is able to claim, in concluding the argument of the Deduction at §26, that "all synthesis, even that through which perception itself becomes possible, is subject to the categories" (B161).[7] Thus Kant specifically does not want to say that the role of the categories, and more generally the understanding, is restricted to what we would pretheoretically

regard as the making of a judgment as opposed to the having of a perception; rather, understanding is required for perception itself. To return to our example, the exercise of understanding is required not just for my judgment that there is a green cube in front of me, or that the cube in front of me is green, but for the very perception through which the green cube is presented to me. And this point seems intended on the face of it to cut against the empiricist view that I can come to have ideas of color and shape, and more generally perceptual images, through the operation of my sensory faculties alone.

II.

I have been arguing so far that Kant's claim that understanding is required for experience is not just the uncontroversial claim that we need understanding in order to make empirical judgments, but the more radical claim that we need it to have the kind of experience that, in the empiricist tradition, was given to us by the senses alone. If this argument is correct, then we must reject what I am calling the straightforward approach to the seeming paradox. We cannot take Kant simply to mean by "experience" what we traditionally think of as empirical judgment or knowledge in contrast to perceptual experience. But we might now consider an alternative approach which begins by granting that "experience" in the relevant sense is indeed supposed to capture a notion that is at least to some extent continuous with the empiricist conception of experience, but which interprets the role of understanding within experience as different from the role that it plays in making judgments in the traditional sense. On this more nuanced approach, there are two different ways in which the understanding can operate, one in which it is responsible for making explicit judgments, the other in which it is responsible for the constitution of perceptual experience. Béatrice Longuenesse articulates a version of this approach when she distinguishes "two aspects of the activity of understanding" (1998, 63). On one aspect, that corresponding to the activity of understanding within perception, "the understanding is a *rule giver for the syntheses of imagination* . . . . In this first aspect the activity of the understanding, or actualizing of its rules, is nothing else than productive synthesis of imagination" (ibid.). By contrast, "[a]ccording to the second aspect, the understanding is *reflective* or *discursive*. It reflects sensible syntheses"—that is, the syntheses for which understanding in its first aspect has prescribed the rules—"under concepts, whether empirical or pure" (ibid.). Longuenesse goes on to connect this contrast with one marked by Kant in a passage from §15 which I quoted above to support the argument against the straightforward approach. Kant notes there that "all combination . . . *whether it is a combination of the manifold of intuition or of several concepts* . . . is an act of the understanding" (B130, my emphasis). Understanding under its first, experiential, aspect is responsible for the combination or synthesis of the manifold of intuition;

but under its discursive aspect it is responsible for the combination of concepts through which we make judgments in the traditional sense.[8]

On this kind of approach, Kant's view avoids the threat of triviality which arises if we simply take him to redefine experience as meaning empirical judgment or empirical knowledge. For it allows experience to be understood as contrasting with, and as potentially providing a ground for, empirical judgment in the ordinary sense. It thus allows us to give some anti-empiricist substance to the claim that experience requires understanding, and hence is governed by the categories. Experience on this view can indeed be described as involving a kind of judging activity, so that justice can be done to Kant's remark, quoted earlier, that "experience consists of judgments." Paton, for example, makes room for this possibility when he articulates a distinction analogous to Longuenesse's but describes it as contrasting, not two aspects of understanding, but rather "two quite different aspects or implications of judgment" (1936, vol. 1, 265).[9] But the kind of judging involved is, we might say, intuitive rather than discursive, and results in an experience of objects' being a certain way, rather than in a commitment to the claim that they are that way. And there is a recognizable continuity between experience, construed as involving this kind of judgment or activity of understanding, and experience in the empiricist sense.

Now it is true that this approach must also make room for purely sensible impressions which do not presuppose the activity of the understanding in any sense: namely, the manifold of empirical intuition which is combined or synthesized by the imagination under the direction of the understanding. So one might worry that there is still a threat of triviality in Kant's position. To show that the categories are not just conditions of our thinking and judging about objects, but that they apply to the objects that are perceptually given to us in advance of our thinking about them and judging them, wouldn't Kant need to perform the apparently impossible task of showing that this unconceptualized sensory manifold itself cannot be taken in by us except through an activity of understanding? Or, to put the worry another way, isn't it the unconceptualized sensory manifold, rather than the "experience" arising from the imagination's combination of the manifold, that should be identified with experience in the sense assumed by the empiricists? A natural answer, on this approach, is that the unconceptualized sensory manifold on its own, while it might in a thin sense "give us" objects, still falls short of perceptual experience as the empiricists understood it. Locke and Berkeley, for example, assumed that our sensory ideas present us not only with particular individuals, but also with determinate qualities possessed by those individuals, such as shapes and colors. When our vision is affected by a green cube, on their model of perception, we see something *as* having a particular shape and shade of color. Something beyond mere sensory receptiveness might admittedly be needed, on their model, to see whatever is presented as, say, a three-dimensional cube, rather than as a pattern of shapes and colors in the visual field; and arguably sensory receptiveness might not be sufficient for us to see what is presented as having the general color *green*, rather

than as being some specific shade of green, or to distinguish the idea of the presented color from that of the presented shape. But there is nonetheless something quite determinate in the sensory given assumed by the empiricists: something which allows us to note resemblances among different items presented to us, and to recognize any one item as having this or that in common—at least as regards simple sensory qualities like color and shape—with this or that other item.[10] This sensory given can thus serve as a basis both for arriving at ideas of more complex qualities, and for making judgments about how such qualities are related to one another.

By contrast, on the answer I have just been sketching, the unconceptualized manifold of intuition in Kant's account does not acquaint us with features or aspects which different objects have in common. We might put this point by saying that it might indeed present us with an individual green cube, but without presenting it *as* green or *as* a cube; and, more minimally, it does not so much as enable us to see what is presented *as* having this or that particular shade of color, or *as* occupying a region of the visual field with this or that particular shape. So conceived, unconceptualized intuitions do not even rise to the level of data on which a possible judgment can be based. Intuitions without concepts are, as Kant's famous phrase has it, "blind" (A51/B75).[11] It is not until the manifold has been synthesized by imagination, under the direction of understanding, that we arrive at something corresponding to the ideas that the empiricists ascribed to the senses alone. Thus, even though his position makes room for unconceptualized sensory impressions prior to any activity of understanding, Kant can still be understood as holding, as Longuenesse puts it, that "the psychological *data* empiricists assume depend themselves on operations empiricists cannot account for" (1998, 38).

A natural way to think of the activity of perceptual synthesis on this more nuanced approach is as a kind of image formation under the guidance of rules which can be identified with, or at least which correspond to, concepts of what the image is to represent.[12] We can think of this image formation, Kant suggests, as a kind of "drawing": he says, for example, that "when I make the empirical intuition of a house into perception through apprehension of its manifold . . . I as it were draw [*zeichnen*] its shape" (B162) and that "the concept *dog* signifies a rule in accordance with which my imagination can trace [*verzeichnen*] the shape of a four-footed animal in a general way" (A141/B180).[13] The resulting perceptual image, on this view, is one which represents its object as having a feature corresponding to the rule. When I apprehend a dog, I form an image of it in accordance with the rule or concept *dog*, and thus come to see what is given to me as a dog.[14] But the analogy has its limitations, given that if we are to think of perceptual synthesis as the formation of an image under the guidance of a rule, we have to consider the image as formed out of sensory impressions which are given prior to the activity of synthesis.[15] Synthesis appears, at least on the face of it, to be a process of combining or putting together sensory elements which constitute the "raw material" of experience (A1, B1). So the question arises, as it does not in the case of drawing a picture,

of what the relation is between these sensory elements and the rules according to which imagination combines them. What determines which rules the understanding prescribes for the synthesis of a given sensory manifold? And in particular, what role does the manifold itself play in dictating the rules by which it is to be synthesized?

In the case of the pure concepts of the understanding, the answer seems relatively clear. The understanding alone is the source of these rules, and since any sensible manifold must be synthesized in accordance with these rules, no question arises of which of the pure concepts in particular is to guide the synthesis of this or that collection of sensory elements. But, as the example of the dog in particular suggests, perceptual synthesis is guided not only by pure, but also by empirical, concepts. Pure concepts alone could not direct my imagination to synthesize the sensory material into an image which represents what is given to me *as a dog* rather than, say, *as a table.* What is needed if my imagination is to form an image of a dog—that is, an image which represents its object as a dog—is that I synthesize the manifold according, precisely, to the concept *dog*.[16] But we might now ask, what makes it the case that when, say, my senses are affected by a dog, my understanding directs my imagination to synthesize my sensory impressions according to the concept *dog* rather than according to some other empirical concept? And here we might have in mind two distinct, but related, questions. We might ask why, in general, the understanding prescribes some rules of synthesis rather than others: why, for example, it directs the imagination to synthesize according to the rules *dog* or *green* as opposed to any of the infinite number of their grue- and quus- like competitors (say *dog that is not under the Eiffel Tower* or *green and opaque or blue and translucent*).[17] Alternatively, we might set aside the question of what determines the stock of empirical rules available to direct perceptual synthesis, and just ask what it is which determines that one rather than another of these rules is employed on a particular occasion. Suppose that my senses are affected by a green cube: granted that the concepts available to guide my synthesis are *green* and *blue* rather than *grue* and *bleen*, what directs my imagination to synthesize these intuitions according to the *green* rule as opposed to the *blue* rule?

It seems obvious that, if the approach under discussion is to do justice to the receptive aspect of experience, then the answers to both these questions must make reference to the sensory manifold. Even if it is understanding which is, in Longuenesse's terms, the "rule giver" for synthesis, the sensory manifold must play a role in determining both which rules are prescribed in general, and when one rule is to be applied in preference to some other.[18] When it comes to the formation and application of empirical concepts, understanding must, so to speak, borrow its authority from sensibility. For otherwise there would seem to be no sense in which sensible intuition could determine the content of perceptual experience, and hence no sense in which it could serve as its "matter." Sensible intuition would present me only with an indeterminate "this," with no indication of how it was to be combined with other such "this-es": the responsibility for my seeing what was presented to me

as having one feature rather than another, as green rather than blue (or grue), or as a cube rather than a sphere (or a sphube) would lie solely with understanding.[19] But now the approach faces a difficulty. If it is allowed that the sensory manifold plays a role in determining the rules for how it is, itself, to be synthesized, then it is hard to see how sensible intuition can count as "blind" in the sense characterized above. To put the difficulty crudely, how can a given sensory manifold convey to understanding that it is to be synthesized according, say, to the rules *green* and *cube*, without thereby already representing the item it presents *as* green or *as* a cube? If in receiving sensible intuitions, we already receive a specification of the ways in which those sensible intuitions are to be combined, then it looks as though the sensory manifold is presented to us, prior to any activity of imagination under the guidance of understanding, with no less determinateness than, say, the sensory ideas of the empiricists. And then the worry about reemerges. For it now looks as though we can after all have experience, in something like the sense assumed by the empiricists, without any need for understanding.

The difficulty can also be put by noting that, if sensible intuitions are to determine the empirical rules by which they are synthesized, then it would seem that they have to play some kind of rational or justificatory role with respect to the activity of understanding within experience. We noted earlier that, on the approach we are considering, understanding's prescription of rules for the imagination can be treated as a kind of judging. But in contrast to the straightforward approach to the apparent paradox, the "judging" that takes place in experience is not to be assimilated to the making of judgments in the ordinary discursive sense. In particular, rather than being based on or grounded in experience, it serves to constitute the experiences which in turn serve to justify empirical judgments as ordinarily conceived. However, once we allow that unsynthesized empirical intuitions can determine what rules the understanding ought to apply in order to synthesize them, we are in effect considering them as standing in a rational or justificatory relation to the understanding's act of prescribing the rule. To say that the empirical intuitions I receive when I perceive a green cube determine that my understanding is to prescribe the rules *green* and *cube* for their synthesis is tantamount to saying that those empirical intuitions justify or rationalize the judgment that what is given to me is green, or is a cube. And this is, in effect, to undermine the distinction between the "nuanced" approach, as I shall now refer to it, and the more straightforward approach to which it was supposed to provide an alternative. Once we concede that the authority of understanding, in its "giving the rule" to imagination, is borrowed from the sensible intuitions which imagination synthesizes, then we are conceiving the activity of understanding as like the activity of judgment in the traditional sense, that is, a matter of making judgments about how things are on the basis of how they are presented to us in sensory perception. And again this opens Kant's view to what I have called the threat of triviality: the categories turn out to be conditions of thought and judgment, but there is no longer any reason to claim that they apply to the perceptual experience on which our judgments are based.[20]

There are a number of ways in which one might try to defend the nuanced approach against this line of objection. One is to allow that synthesis is not needed in order for us to be acquainted with simple sensory qualities like color and shape (perhaps more specifically restricted to two-dimensional shape); rather, its role is to make possible the representation of higher-level features like the property of being a dog or a house. This defense concedes, in effect, that unsynthesized sensible intuitions already possess the level of determinateness characteristic of Lockean simple ideas; synthesis is needed, not to make these ideas possible, but rather to allow us to organize them in more sophisticated ways so as to arrive at ideas of particular natural substances or artifacts. But it claims that such ideas are still necessary for experience in that we need them if objects are to be perceptually presented to us not merely as colored and shaped, but also as being (say) dogs or houses. So even though unsynthesized intuitions are not indeterminate, they still do not amount to perceptual experience in the perfectly ordinary sense in which we experience dogs as dogs and houses as houses. But this defense does not, it seems to me, avoid the worry about triviality. For this "ordinary" sense of perceptual experience is not the experience of the empiricists, which is restricted to the perception of things as having simple properties like colors and shapes. Kant's empiricist opponent can thus insist that on Kant's view, so construed, understanding is not a condition of experience proper, but rather a condition on making judgments on the basis of experience. My perceptual experience of this object as a dog, on the empiricist view, is in fact a composite formed from my experience of this particular arrangement of colored patches (or of this colored and shaped thing), and my judgment, based on that experience, that there is a dog present to me. So this construal ends up amounting to the straightforward view on which understanding is required not for experience proper (that is, in the empiricist sense), but only "experience" in the sense of empirical judgment.[21] Moreover it is not clear what warrant there is in Kant's text for supposing that the "blindness" of unsynthesized intuition is meant to exclude the possibility of its representing things as, say, dogs or houses, while allowing that they can represent them as, say, green or square. For the rationale for the "blindness" claim is at least in part that intuitions, being singular, cannot represent things as having general features. And qualities like greenness or squareness—or even such finer-grained qualities as being of some particular shade of green or having the dimensions of a square of some particular size—are no less general than the property of being a dog or a house.

It might be proposed in response that the shapes and colors with which unsynthesized intuitions acquaint us are not qualities common to a multiplicity of things, but rather what are sometimes called "abstract particulars" or "tropes," that is, singular instances of universal properties. This proposal might be the basis of a second line of defense on which intuition presents us not, say, with this green color or this cubical shape as such, but rather with the green color or cubical shape of *this* green cube, regarded as distinct from the green color or cubical shape of any other green cube, even one which is indistinguishable from the first. This view of the

content of intuition is proposed by Houston Smit, who relates it to the notion of an "intuitive mark" which Kant invokes at R2286 (16:299–300) (see Smit 2000, 254).[22] What intuition presents us with, on this view, is "singular instances of the predicates through which we determine . . . things in experiencing them" (ibid., 255). And this might seem to address the difficulty, in that it seems to accommodate the "blindness" of unsynthesized intuitions by denying that they present us with general features, while still allowing them a kind of determinacy which could give them a role in prescribing rules for synthesis. But the problem with this line of defense is that it is not clear how my acquaintance with a singular instance of the shade of green belonging to this green cube could indicate to me how the intuition which presents that instance is to to be combined with other intuitions presenting different instances of the same shade. For me to grasp that the intuition is to be combined with other intuitions according to some determinate rule corresponding to the shade of green, and hence that the cube is to be represented (in common with other identically colored objects) as having that shade of green, it would seem that my intuition must represent the singular instance of the shade of green *as* an instance of that shade of green. In other words, it is hard to see how intuiting a "singular instance of a property" (ibid.) could determine a rule according to which the intuition is to be synthesized, unless the intuition acquaints me not only with the singular instance of the property, but with a general feature that that singular instance has in common with other singular instances of the same property, namely, that of being an instance of that property. And if we suppose that, then we might as well be supposing that intuition presents us with universal properties after all: a supposition which brings us back to the first line of defense.

A third way of defending the approach might be to suggest that, while the unsynthesized manifold cannot acquaint us with qualities, it can nonetheless present its intuitions as standing to one another in relations of resemblance. Understanding can thus impose rules of synthesis that are suggested to it by the ways in which the elements of the manifold are similar to, and different from, one another.[23] But here we have to be careful to avoid a potential ambiguity in the appeal to resemblance to explain how the manifold can play a role in determining rules of synthesis. If all that is intended is that one element of the sensory manifold in fact resembles another, then it is left open whether or not, in receiving the sensory manifold, we are aware of the resemblance. It could be, for example, that unsynthesized intuitions resemble one another in various respects without the resemblance itself registering in consciousness. (To make this thought more concrete, we might imagine resemblances of this kind being empirically detectable from a third-person standpoint: a sentient being, such as an animal, might respond behaviorally in one predictable way to green items or to cubes, and in another way to blue items or to spheres; and we might infer from that that the sensory impressions caused by any one of the green cubes were phenomenologically more similar to those caused by the other green cubes than to those caused by the blue spheres. But this would not imply that the animal was itself aware of its sensory impressions as resembling one

another in these ways. One impression would be phenomenologically like another, and hence result in similar behavior, without the animal's representing the resemblance itself.) In that case the sensory manifold could not, as the approach under discussion seems to require, convey to understanding the rules for its synthesis. We can indeed make sense of the idea that the sensory manifold would in fact *come* to be synthesized in one way rather than another, namely in a way corresponding to the resemblances among its elements, but not of the idea that it would determine rules saying how it *ought* to be synthesized. If, however, we understand the appeal to resemblance as suggesting that the intuitions not only resemble one another in various ways, but are presented *as* standing in relations of resemblance, then we once again face a conflict with their supposed blindness. A manifold whose elements are represented as standing in relations of similarity and difference to one another no more counts as "blind" than a manifold whose elements are represented as colored or shaped.[24]

A fourth, and more indirect, line of defense might challenge my suggestion that the sensory manifold cannot determine that it ought to be synthesized in accordance with, say, the concepts *green* and *cube*, without thereby representing its object *as* green or *as* a cube. Objects come to be represented as having features, it might be objected, only insofar as the guidance supplied by the manifold of sensory intuition is supplemented by the understanding's application of the pure concepts to that manifold. I can thus represent something as a green cube only insofar as I also represent it—thanks to the contribution of understanding—as a substance endowed with qualities and standing in causal relations to other substances. On the version of the nuanced approach suggested by this line of defense, the "blindness" of unsynthesized intuitions results from the fact that they cannot represent their objects as determined according to the categories. It does not exclude the possibility of their contributing to a representation of objects as having determinate features by, so to speak, "filling in" what is needed to represent an object as a cube shaped rather than a spherical (or sphubical) substance, or as having the quality of greenness rather than blueness (or grueness). Unsynthesized intuitions do not then, on this view, present themselves or anything else as green or cube shaped; but they do have features such that, when they come to be synthesized under the direction of the understanding in accordance with the pure concepts of the understanding, they will come to be synthesized more specifically according to the concepts *green* and *cube*.[25]

But this line of defense is, it seems to me, illegitimate. For it attempts to defend the coherence of Kant's claim that experience involves understanding by appealing to a point which I take to depend on that claim—namely, that we need the categories in order to represent what is given to us in perception as having determinate features such as color and shape. On my understanding of the structure of Kant's overall view in the *Critique*, his claim that we need the categories in order to have perceptual experience—in particular experience which acquaints us with features like color and shape—depends on, rather than warranting, the more general assumption

that perceptual experience involves the activity of understanding. This is an assumption that needs to be made plausible, or at least coherent, if Kant is to be able to argue more specifically that experience must be subject to the pure concepts by which all activity of the understanding is constrained. We need already to have made sense of the idea that perceptual experience requires understanding if we are to be able to go on to claim that, say, we cannot represent something as a green cube without representing it as a substance endowed with qualities; so we cannot appeal to that claim as a way of defending the coherence of the initial idea. To put the point more concretely: Kant's empiricist opponent might well simply insist against this line of defense that, insofar as the unconceptualized manifold determines whether an object is to be represented as a substance endowed with the quality of being green, or as a substance endowed with the quality of being blue, then it is, *eo ipso* representing what is given to us as green or as blue. On the empiricist position—which is, after all, quite plausible on the face of it—sensibility alone can acquaint us with the shapes and colors of things, and there is no need to suppose that this presupposes *a priori* representations of the things as substances, or as having qualities, or as standing in causal relations. So the envisaged reply simply begs the question against the empiricist. According to the empiricist, the contribution of sensibility as conceived on this model *just is* that of representing what is given as determinately shaped or colored, so that there is no distinction to be made between the allegedly "blind" intuitions playing their guiding role, and the determinate sense data which figure in the empiricist's own model of perception.

It might be asked at this point whether the blindness of unsynthesized intuition could be preserved by rejecting the assumption that it must play a normative, rather than a merely causal, role in determining how the manifold is synthesized. Perhaps—and we might consider this as a fifth possible line of defense—the unsynthesized manifold does not convey or indicate to the understanding how it ought to be synthesized, but instead merely triggers the application of this or that rule in the understanding's repertoire. When my vision is affected by a green cube, for example, the resulting intuitions are causally responsible for my imagination's following the *green* rather than the *blue* rule, and the *cube* rather than the *sphere* rule. But they carry no indication that these rules are appropriate; rather, they simply bring it about that my imagination engages in the formation of a *green cube* image rather than a *blue sphere* image.

The problem with this proposal, though, is that in ascribing a merely causal role to unsynthesized intuitions, it prevents us from doing justice to the idea that these intuitions comprise the content of experience, or, in Kant's terms, its matter. The role of these intuitions in our example is exhausted by their triggering the formation of an image with the intentional content *green cube*. But this means that the intuitions no more enter into that content than does any other element in the causal chain leading up to the formation of that image, for example the stimulation of receptor cells in the retina. The relation between the intuitions and the content

of the perceptual experience they engender is purely external: the content of the experience does not reflect anything about the intrinsic character of those intuitions, but only the causal role which they happen to play in our psychology. The problem can also be put by noting that, at least on the line of defense as I have spelled it out so far, intuitions play no role in determining which rules the understanding has in its repertoire. Intuitions determine whether the rule which is triggered is *green* or *blue*, or *sphere* or *cube*, but that the available rules are *green* and *cube* rather than *grue* or *sphube* would seem to be a matter uniquely of how things are with the understanding. So the ascription of a merely causal role to intuition—at least one where its role is to activate this or that rule of understanding—in effect undermines the distinction between pure and empirical concepts. As in the earlier formulation of the problem, it prevents intuitions from playing the kind of content-determining role needed to do justice to Kant's idea that they comprise the matter of experience. The inevitable conclusion, then, would seem to be that understanding alone is responsible for the content of experience—for the fact, say, that being affected by a green cube engenders in us a *green-cube* rather than a *grue-sphube* experience—whereas intuition is left to determine only which content is entertained on which particular occasion.

The solution, it might be proposed, is not to abandon the suggestion that unsynthesized intuitions play a causal rather than a normative role in the constitution of experience, but rather to pursue it in a more thoroughgoing way. Instead of supposing that intuitions trigger a process by which imagination is guided by normative rules prescribed by understanding, why not deny that the imagination's synthetic activity is normatively guided at all, and instead take synthesis itself to be a purely causal, rather than an intrinsically rule-directed, process? On this more radical proposal, which I will consider as a sixth and last defense of the nuanced approach, a green cube's affecting my senses brings about—as on the versions of the approach we have so far been considering—an imaginative process through which I come to form the image of a green cube. But, in contrast to the versions so far considered, this process is not carried out under the guidance of the concepts *green* or *cube*. To the extent that the "drawing" analogy still applies, the drawing is not carried out with an antecedent idea in mind of what one intends to depict; rather, it is as though one moves the pencil automatically, carried along by a sequence of blind impulses, and can recognize only afterward, by examining the result, what it is that one has come to depict. Synthesis on this proposal, while not guided by rules, could still be viewed as a law-governed process by which intuitions come to be combined or associated in orderly patterns. We could fill the proposal out by supposing, for example, that the intuitions that I have on seeing a green cube regularly bring to mind memory traces of the intuitions that I have had on other occasions of seeing green things and cubes, and that this leads, on any given occasion of seeing a green cube, to my anticipating a specific set of further intuitions associated with those other occasions. I thus come to form an image incorporating

elements from previous occasions as well as the present one, so that, for example, I come to represent the cube as having six faces even though on the present occasion only three of the faces were visible to me, or as such as to look green in normal light even though, on the present occasion, I am seeing it in yellow light.[26] But the fact that the previous intuitions which I recall are intuitions of a kind typically caused by green things and cubes, as opposed, say, to intuitions of a kind typically caused by blue things and spheres, is not a result of my present intuitions having somehow clued me in that *green* and *cube* are the appropriate rules to follow and hence that these are the intuitions which I ought to recall. More generally, the procedure by which I recall previous intuitions—which is to say the "synthesis of reproduction" which Kant takes to be central to the synthesis of the manifold—does not presuppose any antecedent grasp of rules at all, whether indicated by my intuition or originating in the understanding. Rather, my reproducing the particular intuitions that I do, and hence my forming the image of a green cube rather than, say, the grue-like image that might be formed if I recalled to mind some quite different set of intuitions, is due to the operation of purely natural laws; and I arrive at the concepts *green* and *cube* only when I subsequently reflect on my activity of synthesis with a view to understanding how it operates. As Patricia Kitcher puts it in defense of this kind of view: "rules govern syntheses only as the law of gravity governs the movements of the planets" (1990, 83). As she sees it, we become aware of these rules only when we adopt the perspective of theorists: "it is only when trying to explain cognition that we must be cognizant of rules of synthesis" (ibid., 84).

But this attempt at a more thoroughgoing naturalization of synthesis faces a problem which is, in a sense, the mirror image of that which I raised for the previous, less radical, proposal. The previous proposal ascribed too extensive a role to the understanding, in that it made the understanding responsible, apparently, for the entire content of experience. The present proposal, by contrast, seems to allow understanding no role at all in the constitution of experience: understanding is required only for the possibility of reflection on how our experience is possible. Once it is allowed that the synthesis can proceed automatically, without the subject's needing to appreciate that there are rules governing her synthesis or that she ought to reproduce this, rather than some other, set of previous intuitions, then there no longer seems to be any need for understanding to direct the processes by which we come to have experience, as opposed to its being required for the codification and explanation of those processes. To put the point another way, the proposal equates synthesis with a version—if perhaps a more psychologically sophisticated version—of Hume's association of ideas. And as Hume makes clear, there is nothing about the working of the human mind according to principles of association which distinguishes it from the minds of animals. So in effect, this view deprives experience of the spontaneity which Kant ascribes to human beings as opposed to animals. There is nothing left of the idea that experience is a "kind of cognition which requires understanding" (Bxvii).

III.

I distinguished, in the previous two sections, between two approaches to the interpretation of Kant's view that experience requires understanding. On the "straightforward" approach, the activity of understanding in the constitution of experience is simply that of judgment: what Kant means by "experience" in this context is empirical judgments or knowledge, rather than the sensory data on which empirical judgments are based. On the "nuanced" approach, the activity of understanding in experience is not judgment but rather a kind of proto-judgmental activity of directing, that is prescribing rules for, imagination's synthesis of the manifold of sensible intuition. The nuanced approach promises to avoid a worry about triviality that threatened the straightforward view, but I argued that it faces a difficulty of its own. If it is not to collapse into the straightforward approach, then unsynthesized sensible intuition must be "blind" in a way that distinguishes it from the sensory ideas or impressions of the empiricists; that is, it must not acquaint us with general features or qualities of the objects with which it presents us. But if it has the required "blindness," then we cannot explain how it is capable of contributing to the content of experience.

At this point I want to consider a third approach which appears on the face of it to avoid both the worry about triviality and the difficulty I raised for the nuanced approach. This approach is developed by McDowell in the context of his treatment of a general philosophical problem, a treatment which he presents as derived from Kant's account of experience. The problem, which we can label as that of how empirical content is possible,[27] or simply the problem of empirical content, is the central theme of his *Mind and World* (1994, 1996): it is the problem of how thought, judgment, or belief can be "answerable to the empirical world" (1996, xii) or how empirical judgments and empirical thinking can "bearing on . . . reality" (1994, 5). The problem arises because of a difficulty in making sense of the relation between sense impressions, or the "world's impacts on our senses" on the one hand, and our exercises of thought—in particular, our beliefs and judgments—on the other. If our beliefs are to have "the sort of bearing on reality which empirical content amounts to" (ibid., 14), then they must be not merely causally, but also rationally constrained by sense impressions: sense impressions must be capable of serving as evidence for, and hence justifying, our beliefs. But if sense impressions are conceived of in the traditional way as prior to, and independent of, our capacity for thought, then they cannot play this rational or evidential role. For only something with conceptual content, and thus presupposing some kind of involvement of our conceptual capacities, can serve as a reason or justification for belief. The problem leads to what we can think of as a trilemma among three positions, each of them unsatisfactory.[28] If we insist that nonconceptual sense impressions can provide rational constraint on beliefs, then we succumb to what Sellars called the "myth" of the Given. If instead we conceive of the relation between sense impressions and beliefs as merely causal,

then we are committed either to coherentism or to "bald naturalism." On a coherentist view the content of any one of our beliefs is determined exclusively by its relation to our other beliefs, since if sense impressions do not stand in rational relation to beliefs, then they cannot determine their content. This view, McDowell thinks, is ultimately self-defeating: it prevents us from so much as making sense of the notion of a belief at all. Bald naturalism, on the other hand, allows us to make sense of the idea that the relation between beliefs and sense impressions is purely causal, but only by denying that there is anything *sui generis* about beliefs or other exercises of thought, or about the relations of rational justification which hold between them. It denies, in other words, that there is anything distinctive about thinking, and about the rational constraints to which thinking is apparently subject, which demands anything other than the kind of explanation offered in the natural sciences.

The solution to this problem, according to McDowell, is to reject the traditional view of sense impressions as independent of our capacity for thought.[29] We must instead think of sense impressions as already possessed of conceptual content (1994, 9–10); only in this way can we make sense of them as standing in a justificatory or evidential relation to beliefs, and hence as endowing them with empirical content. The interest of Kant's view, for McDowell, is that, properly interpreted, it offers precisely this solution. McDowell sums up the solution, and the corresponding interpretation of Kant, as follows: "the way to stop oscillating [between coherentism and the Myth of the Given] is to conceive empirical knowledge as a co-operation of sensibility and understanding, as Kant does. To avoid making it unintelligible how the deliverances of sensibility can stand in grounding relations to paradigmatic exercises of the understanding such as judgments and beliefs, we must conceive this cooperation in a quite particular way: we must insist that the understanding is already inextricably implicated in the deliverances of sensibility themselves. Experiences are impressions made by the world on our senses, products of receptivity; but those impressions themselves already have conceptual content" (ibid., 46). When McDowell endorses one "quite particular way" of conceiving the cooperation of sensibility and understanding, or of receptivity and spontaneity, he is in effect ruling out the straightforward approach to the issue of how understanding, for Kant, is implicated in experience. When Kant says that understanding is required for experience, he is saying not just that it is required for empirical knowledge or judgment—Beck's "K-experience"—but for sense impressions themselves; that is, for experience in a sense continuous with the sensory ideas and impressions of the empiricist tradition. And this way of reading Kant is important to McDowell not because it vindicates Kant's project of showing the applicability of the categories to objects given in experience, as in the line of argument I developed in section I, but rather because it is only on this reading that Kant is able to account satisfactorily for the empirical content of judgment and, more generally, of thought. To expand briefly on this point: the traditional empiricist picture on which sense impressions provide data for judgment is, as McDowell sees it, a version of the Myth of the Given. To adopt the straight-

forward approach would be to assimilate Kant's view to this traditional picture, on which sensible impressions, which do not require understanding, serve as data for exercises of understanding through which empirical judgments are made. But if we instead approach Kant on the assumption that it is sensible impressions, and not just the empirical judgments that are supposedly based on them, which require understanding, then not only do we avoid this assimilation, but we are able to find in Kant the solution to the problem of empirical content.

I said that McDowell implicitly rejects the straightforward interpretation of Kant; does he, then, adopt the approach which I referred to as "nuanced"? His approach is like the nuanced approach in that it distinguishes the role of understanding within experience from its role in the formation of judgments. But in contrast to the nuanced approach, McDowell denies that the former role can be spelled out in terms of operations on a preconceptual manifold of intuition, for example by saying that understanding either synthesizes, or prescribes rules for the synthesis of, such a manifold: conceptual capacities are not "exercised *on* an extra-conceptual deliverance of receptivity," but rather "drawn on *in* receptivity" (1994, 9). The only sensible impressions in McDowell's account are those which are already endowed with conceptual content and which stand in grounding relations to belief; those sensible impressions cannot in turn be seen as arising from the exercise of the understanding on sensible impressions at some more fundamentally receptive level. There is, in other words, no "sheer receptivity": as McDowell puts it in a passage I quoted above, "the understanding is already inextricably implicated in the deliverances of sensibility themselves" (ibid., 46). Because of this, the issue which we found so problematic in the previous section, that of how "blind" intuitions can determine the rules by which they are to be synthesized, simply does not arise.

McDowell develops this aspect of his interpretation, in his (1998) Woodbridge Lectures, through a criticism of Sellars's claim, in *Science and Metaphysics*, that nonconceptual intuition for Kant must "guide" the conceptual activity involved in perceptual experience. According to Sellars, Kant's metaphor of productive imagination's "taking up" the manifold of outer sense implies "that the manifold is an independent factor which has a strong voice in the outcome" of this activity (1968, 16). But for McDowell the idea of nonconceptual intuition guiding conceptual activity, or having a "voice" in its outcome, represents, ironically, a lapse into the Myth of the Given criticized elsewhere by Sellars himself. A satisfactory interpretation of Kant can allow "guidance" only from what is already conceptual, or conceptually determined: that is, either sensible impressions as McDowell conceives them, or the conceptually determined objects that are revealed to us in those sensible impressions (1998, 467). The rationale for this aspect of the interpretation can be captured in more general terms by noting that, if McDowell were to allow that understanding either operates on, or is guided by, "sheer receptivity," then the problem of empirical content, having been solved at the level of judgment, would arise again at the level of experience. We would need to ask how, if at all, the manifold of sheer receptivity can determine the content of the sensible impressions in which

understanding is already implicated, and we would face a parallel trio of unattractive answers corresponding respectively to the Myth of the Given, coherentism and bald naturalism.[30] The only way to avoid the problem is, as McDowell puts it in *Mind and World*, to "disallow the question what conceptual capacities are exercised on in experience" (1994, 39). And indeed, according to McDowell, we should not think of understanding, in its role within experience, as so much as "exercised" at all; that way of speaking, he says, "would suit an activity, whereas experience is passive" (ibid., 10). Conceptual capacities within experience are not exercised but "drawn into operation" (ibid., 46) or "actualized" (1998, 439–40).

How, then, is understanding implicated in experience, if not through an activity of synthesizing preconceptual representations? As I understand McDowell's answer, understanding plays a role in experience simply in virtue of the fact that the contents of experience are conceptual; that is, that they are the same contents which figure in judgments. "In experience one takes in, for instance sees, *that things are thus and so*. That is the sort of thing one can also, for instance, judge" (1994, 9). The experience which I typically have when my senses are affected by, say, a green cube, is an experience of seeing that there is a green cube in front of me, or that this cube is green. This is an experience which I can have only if I am also capable of judging that there is a green cube in front of me, or that the cube is green; and because of that we can describe the experience as "drawing on" my capacity to make such judgments. McDowell develops this point, in the Woodbridge Lectures, in terms of the Sellarsian idea—with which McDowell is in agreement—of experiences as "containing" claims. The paradigmatic actualization of our conceptual capacities, according to McDowell, is in the form of judgments; for example, the judgment that there is a green cube in front of one. Here two distinct conceptual capacities, corresponding respectively to the concepts *green* and *cube*,[31] are actualized with a "specific mode of togetherness" (1998, 439) whose specificity we can capture by noting that it is not present in the judgment that there is a green sphere and a blue cube in front of one. But these same conceptual capacities can be actualized, with the same mode of togetherness, in the perceptual experience one has when one sees that—as opposed to judging that—there is a green cube in front of one. And in this case their actualization is not "free" and "responsible" as it is in judgment (ibid., 439) but rather "involuntary" (ibid., 440). The judgment and the corresponding perceptual experience thus both have the same conceptual content, but differ in that in the one case the content is freely and responsibly endorsed, whereas in the other case we are, as he puts it in *Mind and World*, "saddled with content" (1994, 10). "One's conceptual capacities have already been brought into play, in the content's being available to one, before one has any choice in the matter" (ibid.).

McDowell's references here to the voluntariness and choice supposedly involved in judgment might seem problematic in a Kantian context, where the spontaneity associated with understanding and theoretical reason is, at least on the face of it, quite different from the practical freedom associated with the will. But his point can be captured less controversially in terms of a more general, and not necessarily will-

dependent, notion of the assent or commitment involved in judging. I can see that there is a green cube in front of me, according to McDowell, without assenting to, or endorsing, the claim that there *is* a green cube in front of me. This can happen in a case where there is a green cube in front of me, and where the presence of the green cube also leads me to have a visual appearance as of a green cube in front of me, but where I withhold assent from the claim that there is a green cube in front of me because I falsely believe that the lighting conditions are abnormal or that I am the victim of a hallucination. In this case I am likely to judge that there is a green cube in front of me only if I come to be disabused of my false belief about the context in which I am having the experience, so that I no longer have a reason not to endorse the content of the experience. "*That things are thus and so* is the content of [an] experience . . . it becomes the content of a judgment if the subject decides to take the experience at face value" (1994, 26). What distinguishes experience from perceptual judgment, and thus more specifically what secures the receptivity of experience in spite of its involving conceptual capacities, is that in experience there is no assent to, or endorsement of, the conceptual contents which figure in experience, whereas a judgment based on experience does involve such endorsement: "a judgment of experience . . . endorses the conceptual content, or some of it, that is already possessed by the experience on which it is grounded" (ibid., 48–49). Because of this we can think of the experience as passive, as a matter of its being impressed on us that things are thus and so, rather than of our actively judging that they are thus and so. If there is indeed a green cube in front of me, and it appears to me in the normal way that there is a green cube in front of me, then the fact of there being a green cube in front of me is simply presented to me, in a way which requires no act of commitment on my part.

I am sympathetic to McDowell's denial that experience involves guidance from an unconceptualized sensory manifold. But I disagree with his construal both of the receptive aspect of experience—that is, of what it is about experience which distinguishes it from judgment—and of its spontaneous aspect—that is, what it is that experience has in common with judgment. I want to bring out this disagreement by raising two complementary objections which bear respectively on these two features of his view. The first, which I have developed elsewhere and so will describe only briefly here, is that if experiences do not carry with them commitment or assent to the claims figuring in their contents, then they cannot serve as rational grounds for judgments. This objection draws on the intuition expressed in Davidson´s well-known remark that "nothing can count as a reason for holding a belief except another belief" (1986, 310). McDowell assumes that Davidson´s point could be recast by saying that "nothing can count as a reason for belief except something that is already in the space of concepts" (1994, 140), but in fact Davidson wants to make the stronger point that, to be a reason, a psychological state must involve assent or commitment. The mere entertaining of a conceptual content is not enough to supply me with reasons for endorsing either that content, or any other content which is inferentially related to it. The sight of the full moon might,

on some occasion, lead me to entertain the unendorsed thought that the moon is made of cheese, but this does not mean that I am justified either in believing that the moon is made of cheese, or in believing that it is edible. Now there is, of course, a difference between merely having a thought come to mind, and being, as McDowell puts it, "saddled with" a conceptual content in perception. But it is not clear that the difference is relevant to the question of whether I have a reason for belief. If, as in our earlier example, I am presented with a green cube but fail to believe that it is a green cube because I falsely take myself to be under an illusion, then it is not clear that I do have a reason to believe that a green cube is present to me. Thus, at least on the face of it, the supposedly unendorsed character of the contents of perceptual experience would seem to rule out the kind of rational relation between experience and judgment to which both McDowell himself, and Kant, are committed.[32]

The second objection can be introduced by asking how it is, on McDowell's reading of Kant, that we come to acquire the conceptual capacities which are paradigmatically exercised in judgment but also drawn on passively in experience, and in particular those capacities corresponding to empirical concepts like *green* and *cube*. On at least some versions of the nuanced view discussed in the previous section, concepts are acquired insofar as preconceptual intuitions indicate to understanding the rules according to which they are to be synthesized. Either we can think of this as a matter of intuition's directly putting us in possession of concepts —which is how we must think of it if we identify rules with concepts—or we can think of the rules as merely protoconceptual, and suppose that concepts proper are arrived at through reflection on the experience we arrive at through synthesizing intuitions in accordance with these rules. In either case we are committed to an abstractionist view of concept acquisition, although in the second case the abstractionism is of a more subtle kind. McDowell is clearly committed, on Kant's behalf, to rejecting both alternatives, and, in the Woodbridge Lectures, he explicitly takes issue with Sellars's ascription, to Kant, of the second kind of abstractionism (1998, 454 and 454 n.3; see also 1994, 7). Concepts, for Sellars's Kant, are abstractively derived from "protoconceptual" intuitions: intuitions which have already been synthesized but whose content is not itself conceptual. On McDowell's reading, there is "no opening" (1998, 462) into this kind of abstractionist account because intuitions are already straightforwardly conceptual: "Visual intuitions *of objects* simply are seeings that . . ., looked at as it were from a different angle" (ibid.). A visual intuition of a green cube is not the kind of representation from which the concepts *green* or *cube* can be acquired by abstraction, since it is already a case of seeing that there is a green cube in front of one, and hence already draws on the conceptual capacities corresponding to *green* and *cube*. But then it looks, at least on the face of it, as though McDowell owes us an alternative account of how these concepts are acquired. McDowell's view blocks an abstractionist account of concept acquisition by assuming that experience presupposes conceptual capacities, which *a fortiori* cannot be acquired from experience, but this apparently still leaves us with the question of how we come to possess them.

The closest that McDowell comes to offering an account of empirical concept acquisition is, as far as I know, in the remarks he offers in *Mind and World* about acquiring a "second nature." His model for the idea of second nature is the acquisition of Aristotelian practical wisdom, in which we come to appreciate, or become responsive to, the rational demands of ethics. But he sees this Aristotelian idea as "a particular case of a general phenomenon: initiation into conceptual capacities, which include responsiveness to other rational demands besides those of ethics" (1994, 84). Acquiring a second nature is a matter of "having one's eyes opened to reasons at large" (ibid.) where these include reasons for belief as well as for action. Our second nature makes us aware of the structure of what McDowell, following Sellars, calls "the space of reasons" (ibid., 88). Although McDowell is not at all explicit about how this applies to conceptual capacities like those corresponding to *green* and *cube*, it is plausible to suppose that acquiring or being "initiated" into such capacities is of a piece with "having one's eyes opened to reasons" because, in acquiring a concept like *green*, one becomes aware of actual and possible rational connections among one's beliefs, or among one's beliefs and experiences. To acquire the concept *green* is, in part, to come to appreciate that if one sees or believes that something is green, then one has a reason for believing that it is colored, or that it is visible. It is also to come to appreciate, say, that something can be rationally believed to be green, even if it is not seen to be green, if one believes that one would see it to be green under normal lighting conditions.

Now according to McDowell, Kant "lacks a pregnant notion of second nature" (1994, 110; see also ibid., 97), so that an account of this kind is not available to him. But the notion of second nature is just what Kant needs, again according to McDowell, if his insight about the relation of spontaneity and receptivity in experience is not to "show up . . . in a distorted form" (ibid., 98). So we can still think of what McDowell says about the acquisition of second nature as belonging to his interpretation of Kant, in the sense that he takes it to express what a Kantian view of experience must be committed to if it is to be philosophically satisfactory. How, then, on this interpretation, are empirical conceptual capacities acquired? McDowell characterizes the acquisition of second nature in terms of the German philosophical notion of *Bildung*; while this term connotes ideas of culture or becoming cultivated,[33] he emphasizes that *Bildung* is a natural process, an "element in the normal coming to maturity of the kind of animals we are" (ibid., 88). He also says that, in our conception of *Bildung*, we should "give pride of place to the learning of language" (ibid., 125). For "in being initiated into a language, a human being is introduced into something that already embodies putatively rational linkages between concepts, putatively constitutive of the layout of the space of reasons, before she comes on the scene" (ibid.). And he expands on this by noting that natural language "serves as a repository of tradition, a store of historically accumulated wisdom about what is a reason for what" (ibid., 126). We might provisionally take McDowell's point to be, at least in part, that rational connections are embodied in the structure of language, so that when a child comes to acquire linguistic capacities she both

comes to have a sense of these connections and comes into possession of the corresponding conceptual capacities. The fact that believing something to be green is a reason for believing it to be colored or to be visible, is something of which we can become aware simply by mastering the use of the terms "green," "colored," and "visible." And something similar goes for the rational connections that are grasped in appreciating the ways in which something can look green without being green (say, because of abnormal lighting conditions), or be green without looking green (say, because it is in the dark). Learning to use words like "green," "color," and "daylight" amounts, then, to becoming aware of such rational connections, and, equivalently, to acquiring mastery of the corresponding concepts.

I emphasize that this understanding of McDowell is provisional because it is not clear to what extent he intends the notion of *Bildung*, or more specifically of initiation into language, to play a genuinely explanatory role in accounting for the acquisition of conceptual capacities, as opposed to being just another way of characterizing what goes on when we acquire such capacities. McDowell at one point characterizes the space of reasons as "the framework within which meaning"—of which linguistic meaning is presumably the paradigm—"comes into view" (1994, 88). This suggests that learning a language, which is a matter of becoming responsive to the meanings of terms, is not a means by which we come to appreciate the structure of the space of reasons, but rather something which is either simply of a piece with initiation into the space of reasons, or indeed something which is made possible through our grasp of reasons. However at other points he suggests that the appeal to language learning is intended to help us understand how we come to acquire responsiveness to reasons and, correspondingly, conceptual capacities. For example, he introduces the idea that language learning is central to *Bildung* by saying that it allows us to "take . . . in our stride" a "transformation" which otherwise "risks looking mysterious"; namely, that of a human being from a "mere animal" to a thinker and intentional agent (ibid., 125). We can, he says "make sense of" a human being's "matur[ing] into being at home in the space of reasons . . . by noting that the language into which a human being is first initiated stands over against her as a prior embodiment of mindedness" (ibid.).

But if we take at face value the suggestion that the appeal to language learning is supposed to help us explain how we come to acquire conceptual capacities, then it is hard not to avoid questions, in turn, about how we come to learn a first language. To come quickly to the question which arises most naturally in the context of McDowell's view of experience: how can an individual learn the use of an observational term like "green"—or, for that matter, "cube," whose acquisition is also typically keyed to observation—if she is not already in some sense capable of seeing the things around her *as* green or *as* cubes, or at least as having some distinctive features in common which serve to legitimate the application of this or that term? How does she know to project her own use of "green" from the initial set of samples associated with her parents' or teachers' utterances of "green" to other green things—as opposed, say, to things that are grue—if she is not somehow aware of

these other green things as having something in common with the samples which makes the utterance of "green," again, appropriate? For McDowell, at least if we understand his view as one in which language learning is explanatory of concept acquisition, our capacity to experience something as green or as a cube is made possible by our mastery of a language which has terms corresponding to "green" and "cube"; it cannot be presupposed as a condition of our acquiring such mastery. But that raises a question, on the face of it, about how we are capable of acquiring a language in which observationally keyed terms play a central role.

It might be replied that learning the appropriate use of terms like "green" and "cube" is just something which happens in the course of natural human development. And indeed this reply is at least suggested in McDowell's characterization of *Bildung* as a normal part of human maturation, and more specifically as the development of innate capacities: "[o]ur *Bildung* actualizes some of the potentialities we are born with; we do not have to suppose that it introduces a non-animal ingredient into our constitution" (1994, 88). We might suppose, then, that the tendency to project our responses to green things as we do, as opposed to "going on" in a *grue*-like way, is simply one of our innate potentialities. We are born with other such potentialities, say for the projection of terms like "herbaceous" or "painterly," but these come to be actualized only if our *Bildung* includes initiation into wine tasting and art appreciation; and in a culture which had no use for colors, the potentiality reflected in our projection of "green" would remain unrealized. If this is how language learning is understood, then asking why a child comes to project "green" in the typical way rather than in a grue-like way is like asking why she grows hair instead of leaves. She does not need any reason to project "green" from the initial set of samples to new instances of green objects, and nor, in particular does she do so because she sees the new instances *as* green. Even though it is a cultural fact about her that it is "green" which she comes to use in this way rather than "*grün*" or "*vert*," and, more generally, that she comes to use color words at all, the fact that her pattern of use takes the form that it does is simply a reflection of her biological endowment, and, more specifically, of what Quine (1969) calls her "innate standard of similarity" or "innate spacing of qualities." The explanation of that fact will be no different in principle from the explanation we might give for why a pigeon who has been rewarded for pecking at an initial sample of green objects goes on subsequently to peck at objects that are green rather than grue.[34]

But this cannot be the whole story, for McDowell, about how language learning is possible. For if it were, then there would be no room to raise questions about whether a given pattern of projection, or "way of going on," is or is not appropriate. And this would conflict with McDowell's view that it is essential to the very idea of a conceptual capacity that concepts—even our most observational concepts—are open to being "reshaped" or "refashioned" on the basis of reflection (1994, 13), and that consequently we are under a standing obligation to "ensur[e] that our empirical concepts . . . pass muster" (ibid., 40). To say that the patterns in which we use our terms are no more than an expression of our innate potentialities is, in

effect, to rule out the possibility that our concepts are open to "reflective criticism": that, for example, reflection can "disclose weaknesses in inherited ways of thinking" which in turn can "dictate the formation of new concepts" (ibid., 81). Even though it leaves room, on the face of it, for spontaneity in the application of a concept in a judgment—deciding in a particular case whether something is green may require reflection on other properties it possesses, on the lighting conditions in which it is seen, on the way other people respond to it, and so forth—the concept itself is something which is fixed by our biological nature, something with respect to which we are passive. But on the "demanding" interpretation of concepts to which McDowell says he is committed (ibid., 47), we must think of ourselves as engaged in active reflection, not just with respect to the use of our concepts in judgments but with respect to concepts themselves.

This, however, is not yet an objection to McDowell's account, since he can accommodate the idea that our concepts are open to criticism by supposing that one concept can be evaluated in the light of other concepts, or in the light of experiences conceived—as of course McDowell thinks they must be—in conceptual terms. Our conceptual capacities belong to "a network that rationally governs comprehension-seeking responses to the impacts of the world on sensibility" (1994, 12) and elements of the network can be criticized in relation both to one another and to the "impacts of the world," themselves conceptually structured, which we are seeking to comprehend. Correspondingly, we can think of the language learning in which the acquisition of conceptual capacities consists as involving an appreciation of the way in which the use of one word can be a basis for criticizing and reshaping the use of others, in the light of experiences which are made possible through one's developing mastery of the language itself. To take a very crude and artificial example: suppose that, due to some quirk in the language learning process, a child—who otherwise uses color words more or less correctly—habitually applies "green" only to green objects that are opaque, refraining from applying any color term to objects which are green and translucent. We might imagine her at some point reflecting on her use of other color words, say her use of "red" as applying to translucent as well as opaque objects, and as a result coming to correct her usage of "green" so that it applies also to translucent objects. As a result of this reflection, a translucent green thing now strikes her, in a way it did not before, as colored; and because of that she is now prepared to call it "green." On this view, language learning would not simply be a mere actualization of innate potentialities, but also a rational, or at least protorational process. The child, then, would not simply find herself with the concept *green*, but would have acquired it in a way which was at least sensitive to the possibility of its being shaped by reflection on its relation to other concepts and to experiences with conceptual content.

I have been suggesting so far that a satisfactory account of language learning, for McDowell, must combine both of the elements we have been discussing: language learning must involve the actualization of innate potentialities to develop one rather than another pattern of linguistic use, but it must also incorporate the pos-

sibility of correcting and revising any one of these pattern of linguistic use in the light of others. How can these two elements be integrated into a single account? We might begin by supposing that they correspond to two distinct stages in language learning, one more primitive and the other more sophisticated. At the initial stage, it might be supposed, language learning consists in the unreflective acquisition of habits of response. The child becomes accustomed to responding to green things with "green" in much the same way that a pigeon might be trained to peck at green patches, and the fact that her pattern of response is *green*- rather than *grue*-like is, as with the pigeon, entirely a matter of her innate tendencies to respond one way or another to a given kind of conditioning, that is, her "innate spacing of qualities." But once her repertoire of habits has become sufficiently rich, the supposition continues, she finds herself in a position to adopt a reflective attitude to her ways of responding, and to criticize one way of responding in terms of others. This corresponds to the second, more sophisticated level of language learning, which has no analog in the case of the pigeon. However, while this way of combining the two elements might seem to have a certain amount of psychological plausibility, it is unsatisfactory as it stands, for it leaves us with the mystery of how the transition between the two stages is accomplished. In order to think of the child as criticizing one pattern of response in terms of others, we must already think of these patterns of responses as to some extent expressive of a grasp of concepts. But at the initial stage of language learning, as described on this model, the child's habits of response do not, by McDowell's lights, count as conceptual at all.

We might do better, then, to think of the two elements as corresponding, not to different stages in the child's development, but rather to an idealized distinction between two kinds of linguistic response that a child makes in the course of language learning. On this model of language learning the child is capable from the very beginning of appreciating, albeit in an inchoate way, the appropriateness of some of her linguistic responses in the light of others. We can thus think of her patterns of "going on" in her use of a word as shaped simultaneously by her innate propensities to respond one way or another to conditioning and her appreciation of one kind of response as a reason, or proto-reason, for other kinds of response. But each of these elements plays a more or less significant role depending on how closely the child's linguistic responses are tied to observation. If a child is learning color words by being shown objects of an unfamiliar kind, or familiar objects whose features give no clue to what color they are (say, blocks and balls as opposed to apples and bananas), then her patterns of linguistic response will be almost entirely an expression of her similarity space. Her responding with "green" to a given object will not be mediated by her appreciation of the appropriateness of any other linguistic response: correspondingly, to the extent that her learning of that response plays a role in her acquiring of the concept *green*, her acquisition of that concept will be independent of her appreciating its rational relations to other concepts. By contrast, she initially learns to use a word like "fruit" by coming to correlate its use with that of other words like "apple" or "banana." This kind of learning

does involve the appreciation of the appropriateness of one pattern of word use in the light of another, and hence allows room for evaluation and revision of concepts. The child can consider whether "fruit" should apply, say, to avocados: and here she will have to draw, not just on her immediate inclinations to respond in this way or that to a given avocado, but on other concepts she applies to avocados and to fruits more generally (avocados are not served as dessert, but they do grow on trees; they are not sweet, but nor are lemons, which do count as fruit; they are not kept in the fruit bowl, but nor are raspberries; and so on).

The account which I have just sketched seems to me to offer a plausible spelling-out of McDowell's hints about the acquisition of conceptual capacities. But if it is McDowell's view, then—and here I come, finally, to the objection I have been working toward—then it cannot do the work McDowell needs it to do if he is to provide a satisfactory answer to the problem of empirical content. For it commits him to a view of concepts which is problematic in just the same way that coherentism is problematic, and which we might indeed describe as a form of coherentism, although at the level of concepts rather than at the level of the judgments and beliefs which presuppose them. If the only normative constraints on word use that the child is capable of appreciating are constraints which apply in relation to other aspects of word use, then the content of the corresponding concepts is determined exclusively by their relation to other concepts.[35] The biological fact that a child's dispositions to project linguistic responses are *green*- rather than *grue*-like plays a merely causal role in determining the child's patterns of word use, and is thus, at least on the assumptions which motivate McDowell's own criticisms of coherentism, irrelevant to the content of the corresponding concepts. So, as with the coherentism which McDowell criticizes, we are faced with the specter of "frictionless spinning in a void" (1994, 11). The child's pattern of responses to as yet unconceptualized green things plays no role in determining which concept she is on her way to acquiring: all that counts for fixing the content of her concepts are those responses which are mediated by her appreciation of the applicability of other concepts. So if we grant that the concept which the child acquires, in learning to use "green," is indeed the concept *green* rather than the concept *grue*, this can only be because it is tied into a network of other concepts which includes *red* rather than *gred*, *color* rather than *schmolor*, and so on. But then it is not clear how we can make sense of the idea that the concept is an *empirical* concept, or in other words that the child's acquisition of *green* rather than *grue* reflects something about how her receptivity is affected, as opposed to being a product of pure spontaneity. And, again following the logic of McDowell's own critique of coherentism, this in turn calls into question whether we can count her as having concepts at all.[36]

The objection I have just sketched can also be formulated as a direct challenge to McDowell's solution to the problem of empirical content as he himself articulates it, that is, as a problem about the empirical content of thoughts and judgments. That solution turns on the idea that we are, in experience, passively "saddled with" conceptual contents (1994, 10). McDowell makes out this idea by contrasting

the content of experiences with that of judgments and beliefs. In experience "one's conceptual capacities have already been brought into play, in the content's being available to one, before one has any choice in the matter. The content is not something one has put together oneself, as when one decides what to say about something" (ibid.). When I see that there is a green cube in front of me, the content of my experience is not up to me: I cannot for example decide to have it visually appear to me that there is, instead, a blue sphere in front of me. By contrast, I can in a sense decide to *judge* that there is a blue sphere in front of me, as I might do if I am told that I am in unusual viewing circumstances where blue things look green and spheres look like cubes. In that case, even though I believe that there is a blue sphere in front of me, it will still appear to me that there is a green cube in front of me, and assuming that I have been misinformed, and the viewing circumstances are in fact normal, I will, according to McDowell, see that there is a green cube in front of me.

But once we consider the question of how our conceptual capacities are acquired, and with it the question of why we come to have the concepts we do rather than their grue-like variants, then we have to recognize a sense in which the content of my perceptual experience is not, after all, something I am "saddled with," but is, instead, something which is "up to me." For it is always in principle open to me to revise my system of concepts in such a way that I come to reject the concepts *green* and *cube* and replace them with variant concepts like *grue* or *sphube*. And that means that it is in principle open to me, in the very same physical circumstances in which I now find myself (that is, with a green cube in front of me, and under normal viewing conditions) to have a visual experience with a different content, namely, one in which I see that there is a grue sphube in front of me. Of course, if I were to carry out a revision of this radical kind independently of changes in the linguistic practice of those around me, then I would be, in effect, severing myself from the language community into which I had been initiated, and that is no doubt a practical impossibility. But we could imagine changes of a less radical kind, bearing on less immediately observational concepts, yet with a similar effect. When, to draw on a textbook example from the history of science, Lavoisier rejected the concept of phlogiston, he also brought about changes in the content of some of his visual experiences: in circumstances where it would previously have appeared to him visually that a piece of metal was dephlogisticated, he now saw that it was oxidized. And, to return to the original example, although I might not on my own be capable of bringing about the kind of conceptual change envisaged, we could suppose that it is carried out by the language community as a whole, so that even if we cannot make out a sense in which my seeing that there is a green cube in front of me is up to *me*, we can still make out a sense in which it is up to *us*.[37]

Now McDowell would, I think, reject this entire line of objection on the grounds that it assumes what he calls a "sideways-on picture" of our system of concepts, or of how our thought bears on the world (1994, 35). In particular, he might say, we cannot intelligibly raise the question of how a concept like *green* is acquired

except within a context in which the possibility of concepts is already taken for granted. We can indeed make sense of concept acquisition in terms of learning a language, but only if the idea of learning a language is itself understood in conceptual terms, as presupposing meaning. The child learns to project "green" to green things rather than to grue things, and hence comes to acquire the concept *green* rather than *grue*, because she is learning English, and in English "green" means *green* rather than *grue*. But there can be no explanation of how the child acquires the concept *green* in terms of linguistic behavior described in terms that do not presuppose meaning, say, as the realization of a set of responsive dispositions. Relatedly, McDowell might reject the threat of a coherentism at the level of concepts on the grounds that we simply cannot ask how our system of concepts as a whole comes to have empirical content. The question of empirical content arises only for thoughts and judgments, and we can address it only by appealing to experiences understood as already conceptual. My thought that this is a green cube has empirical content in virtue of the fact that, endowed as I am with the concepts *green* and *cube*, I can have experiences in which something´s being a green cube is revealed to me. But it makes no sense to then go on to ask how, in turn, the concepts *green* and *cube* can have empirical content, since that question presupposes a picture on which the conceptual sphere is, as McDowell puts it, enclosed by an "outer boundary" (1994, 34).[38] And this rejection of the possibility of a "sideways on" view of concepts is, of course, not just a part of McDowell´s own view, but also a part of what he thinks Kant needs in order to preserve his insight about the conceptual character of experience.

But to the extent that McDowell disallows, on Kant´s behalf, the question of how the concepts which figure in experience are themselves possible, his own account fails to provide a genuine alternative to Sellars's reading of Kant. For when Sellars, in *Science and Metaphysics*, introduces the idea of "guidance" by preconceptual intuitions it is as a way of addressing just that question, or at least a question very closely related to it: the question of how our perceptual responses to the world come to be, not merely the kind of discriminatory responses which he describes as characteristic of flatworms and white rats, but *conceptual* responses. There is, he says, a "genuine question" to be asked: "Why does the perceiver *conceptually represent* a red (blue, etc.) rectangular (circular, etc.) object in the presence of an object having these qualities" (1968, 18)? Granted that there is a green cube in the vicinity, how can we explain how the perceiver comes to represent it *as* a green cube, as opposed, say, to merely representing it in a way which differs systematically from the way in which she represents blue spheres? Sellars makes clear that this is a question about the possibility of the acquisition of concepts, and he considers the possibility that we could dispense with the appeal to guidance by nonconceptual intuitions by appealing, instead, to language learning. We might try to answer the question by saying that "one is taught by one's linguistic peers, who already have the relevant concepts and propensities, to play the color-shape language game, and, by so doing, acquire these concepts and propensities" (ibid., 18–19). However, accord-

ing to Sellars, this explanation "supplements, but does not replace the original suggestion" that we are guided by preconceptual intuitions (ibid., 19). This is because "the ability to teach a child the color-shape language-game seems to imply the existence of cues which systematically correspond" (ibid.) to color and shape properties. In other words, a child cannot acquire the relevant conceptual capacities, even with training in the use of language, unless there is something given to her in sensation which she can recognize as correlating with the use of the words she is learning, and which thus serves as a cue or guide to the appropriate use of those words.[39]

McDowell, I think, fails to appreciate the force of the question which Sellars is asking. He quotes Sellars's formulation of the question and glosses it, in my view correctly, as that of how "sensory relatedness to the environment takes the form of conceptual episodes" (1998, 444). But he goes on to characterize Sellars as concerned with how to "vindicate the objective purport of conceptual occurrences" (ibid., 445) and with how "thought . . . [can] be intelligibly of objective reality" (ibid., 467). These characterizations also fit a question different from that asked by Sellars: not that of how a subject comes to acquire the concepts *green* and *cube*, but rather how a subject already endowed with the concepts *green* and *cube* can deploy them, or draw on them, in such a way as to enjoy a conceptual episode that is intentionally directed toward an actual green cube there in the world independently of her. Now when McDowell suggests that, instead of appealing to guidance by preconceptual intuitions, we can appeal to guidance by "*objects* themselves . . . becoming immediately present . . . to sensory consciousness" (ibid., 467) it is, I think, this second question which he is answering, and not the question which was asked by Sellars. Our conceptual occurrences can relate intentionally to objects that are independent of us because objects can reveal themselves to us in experience; but they can do so only insofar as we possess the corresponding conceptual capacities. In McDowell's picturesque formulation, drawing on the image of "voice" introduced by Sellars, the object "speaks" to me: "'See me as I am,' it (so to speak) says to one; 'namely as characterized by *these* properties'—and it displays them" (ibid., 468). But as McDowell also points out, objects "speak to us . . . only because we have learned a human language," or, "less fancifully put, objects come into view for us only in actualizations of conceptual capacities that are ours" (ibid., 470). The green cube can present itself to us as green and as a cube only because we have learned a language which contains words like "green" and "cube," and, in so doing, acquired the corresponding conceptual capacities. That means that we cannot appeal to the guidance it offers in order to explain how we can learn that language, and thus acquire those conceptual capacities, in the first place. And, as we have seen, it is precisely this possibility which Sellars's own account is intended to explain.

I have challenged McDowell's rejection of sideways-on views of concepts by saying that it prevents him from engaging fully with the concerns motivating Sellars's interpretation of Kant; there are also grounds for arguing that McDowell fails, for similar reasons, to engage fully with Kant's own concerns. This last argument can be pressed in connection with McDowell's interpretation of Kant's notion

of synthesis, an interpretation which is not worked out in detail but which underlies his discussion of the Metaphysical Deduction (see in particular 1998, 457–62). In the Metaphysical Deduction, Kant contrasts the "mere synthesis of various representations in an intuition" (A79/B105) with the combination of representations in a judgment, and this contrast is usually taken to imply that the elements combined in "mere synthesis" are nonconceptual, in contrast to the conceptual elements which are combined in a judgment proper. But McDowell is committed, by the same considerations which commit him to rejecting sideways-on views of concepts, to holding that the elements which are combined in synthesis are always themselves conceptual. So he proposes an alternative interpretation of "mere synthesis" on which the relevant contrast is not between two different kinds of elements, nonconceptual and conceptual, but rather between a merely passive combination of conceptual elements—as when we find ourselves confronted in experience with the presence of a green cube—and the kind of active combination of conceptual elements involved in judging that a green cube is present. The point of Kant's reference to "mere synthesis," he says, "is simply that it does not take cognitive work for objects to come into view for us. Mere synthesis just happens; it is not our doing, unlike making judgments, deciding what to think about something. This is quite consistent with holding that objects come into view for us in actualizations of capacities that are fully conceptual, capacities whose paradigmatic mode of actualization is in . . . judging" (1998, 462). We "engage in" this or that act of synthesis, then, insofar as we find ourselves entertaining, in perception, this or that combination of conceptual contents. And what Kant would call different "acts" of synthesis with respect to the same given elements differ insofar as the same conceptual contents are perceptually entertained in different combinations: for example, when one perceives that there is a green cube and a blue sphere in front of one, as opposed to perceiving that there is a green sphere and a blue cube in front of one.

But while the combination of conceptual contents is indeed an aspect of what Kant understands by synthesis, McDowell's reading fails to accommodate Kant's conception of synthesis as operating also at a more fundamental level, in making possible the representation of a presented item as, say, green or cube shaped in the first place. This conception is implicit in the same passages which I cited in section II (and, not coincidentally, in the further passages which I reported Sellars as citing) to show why one might be tempted to understand perceptual synthesis on the model of drawing a picture.[40] And other passages, not directly bearing on perception, suggest that synthesis is required if conceptual content is so much as to be entertained by us, regardless of whether this requires a combination of conceptual contents. Kant says, for example, that "we cannot think of a line without *drawing* [*ziehen*] it in thought, we cannot think of a circle without *describing* it" (B154). The synthesis to which Kant alludes in speaking of "drawing" or "describing" is required, not for the possibility of entertaining different conceptual contents in this or that combination (say, that here is a *green circle*) but rather for the very possibility of entertaining a conceptual content like *line* or *circle* at all.

As I noted earlier, I think that McDowell is right to reject the view, held both by Sellars and by most proponents of the nuanced approach, that Kant's account must appeal to the idea of guidance by an unconceptualized sensory manifold. But the two objections raised in this section suggest that McDowell's own alternative is unsatisfactory. Recall that the problem we have been considering throughout is that of how experience, for Kant, can require understanding while still counting as a means through which objects are given to us, or, to put it formulaically, how experience can involve both spontaneity and receptivity. McDowell's solution is to identify the spontaneous aspect of experience with its conceptual character, and its receptivity with the absence of assent or endorsement. Having an experience does not require the exercise of judgment, in the sense of commitment to a claim, and this is what ensures its receptive character. But it nonetheless draws on the conceptual capacities which are paradigmatically exercised in the making of judgments, and this gives it its aspect of spontaneity. The two objections I have raised challenge, respectively, these two aspects of McDowell's solution. If experience does not involve judgment in the sense of assent, then it cannot constitute grounds for belief, as it must if it is to provide a basis for empirical judgments more generally. But conversely, if experience draws on conceptual capacities which are antecedently possessed, then we are faced with an intractable problem about the content of the corresponding concepts.

A natural next step, if one is persuaded by one or other of the two objections I have raised, would be to insist against McDowell that Kant cannot dispense with an appeal to guidance from nonconceptual intuition. This would be to return to some version of the nuanced view discussed in the previous section, and, at least if we wanted to read Kant's view as philosophically coherent, it would require us to reject the claim that the nonconceptual Given is a "myth." But I want to suggest a different approach, which endorses McDowell's denial of guidance by a nonconceptual Given, but which radically reworks his positive view through, so to speak, rearranging its basic elements. McDowell, I want to suggest, is right to try to reconcile the receptive and spontaneous aspects of experience by invoking, on the one hand, the notion of judgment in the sense of commitment or endorsement, and, on the other hand, the notion of a state's drawing on antecedently possessed conceptual capacities. But in identifying the receptive aspect of experience with the absence of judgment, and its spontaneous aspect with the presence of concepts, he gets things, in my view, precisely the wrong way round. The account I want to propose, and which I will sketch very briefly in the next section, adopts what is, in effect, the reverse strategy. On my account, in contrast to McDowell's, experience does involve judgment in the sense of commitment or assent, and it is for that reason that it counts as spontaneous. Conversely, however, and again in contrast to McDowell's view, it does not presuppose the antecedent possession of conceptual capacities, and that is why it qualifies as receptive.

IV.

My own proposal for addressing the problem can best be introduced against the background of the radically naturalistic account described at the end of section II. I introduced this account as a variant of the nuanced approach, since, in common with other versions of that approach, it distinguishes the activity required for the constitution of experience from that required for judgment proper. But, as I pointed out, it is unlike the other versions considered in that it rejects the idea that the synthesis by which experience is constituted is guided by rules. Intuitions are "reproduced" in regular patterns so as to bring about determinate perceptual images, but they are reproduced in those patterns due to the operation of natural laws, rather than to the subject's appreciation that they ought to be reproduced in this or that way. This means that we need not face the difficulty of explaining how allegedly "blind" intuitions can afford the subject a grasp of the rules according to which those intuitions are to be synthesized. It is not for experience itself, but only for theorizing about it, that we need to grasp the "rules," that is to say the natural laws, which govern the synthesis through which experience is made possible. However—and this was the reason I gave for rejecting it—this naturalistic account fails to do justice to Kant's view that understanding is required not just for reflection on experience, but for experience itself. The processes by which experience is constituted are no different from those which take place in animals, so that although we might speak of a psychological activity of synthesis, that so-called activity lacks the genine spontaneity associated with understanding.

But I now want to propose a way of modifying this naturalistic account so as to introduce the missing element of spontaneity. The proposal is that we give the account of synthesis what I have, elsewhere, called a "normative twist" (2006, 49): we understand the subject's activity of synthesis, in spite of its character as a naturally determined process, as involving her awareness that she is synthesizing as she *ought*. More specifically, according to the proposed account, on each occasion that the subject calls to mind, or reproduces, some previous intuition, she does so with the sense that what she is doing is normatively appropriate to her present circumstances, that is, that it is appropriate given the intuitions which she presently has. And she has this sense of appropriateness even though her reproducing the intuition in question is not guided by any appreciation of what she ought to be doing, nor, in particular, by the recognition of any features of her past or present intuitions which make it appropriate for her, under these circumstances, to reproduce this one rather than that. Her consciousness of normativity in what she is doing is "primitive" in that it does not presuppose the antecedent grasp of a specific rule: she is aware of her act of reproduction as being as it ought to be, but where its being as it ought to be does not depend on its satisfying an antecedently specified constraint. The primitive character of this consciousness, and likewise of the normativity of which she is conscious, can be captured by describing her sense of normativity in

demonstrative terms. In synthesizing as she does, she takes it that *this* is what she ought to be doing under *these* circumstances, but in a way which does not depend on her being able to characterize what she is doing or the nature of the circumstances which require it, nor, *a fortiori*, on her grasp of a general rule prescribing which intuitions ought to be reproduced on which occasions.[41]

This can be illustrated by going back to the example mentioned briefly at the end of section II in connection with the naturalistic view. Suppose an ordinary adult is presented with a green cube which she sees only from one angle and in a yellowish light. Assuming that she is familiar with cubes and with the perception of colored things under a range of different lighting conditions, she will come to form an image which presents the cube as a green cube and which thus incorporates elements for which there are, on the present occasion, no directly corresponding sense impressions. Her image will in a sense include the faces of the cube which are not directly in her field of vision, and, assuming that she is not deceived by the unusual lighting conditions it will also represent the cube as having the color it would seem to have under normal lighting conditions.[42] This happens, on the naturalistic view, not because she is guided by the concept of a green cube as on the "drawing" model as I initially presented it, but rather due to a natural process along the lines of Hume's association of ideas. The impression made on her by the green cube in the present circumstances leads her to call to mind impressions made on her by cubes and by green things that she has seen previously, and under better conditions of observation. She thus naturally comes to incorporate into her image elements derived from those earlier occasions of observation (when, say, she had the opportunity to look at the cube from a variety of angles, or to handle it; or when she saw one and the same green thing in a range of different lighting conditions). And if the defender of the naturalistic view is asked why the subject recalls impressions associated, precisely, with previously perceived *green* things, rather than *grue* or *bleen* things, the answer (at least as I am conceiving that view) will be that this is purely a matter of her innate natural dispositions, perhaps in combination with training which makes her sensitive to color differences. The account of why her patterns of recall take a *green-* rather than a *grue*-like form will not differ in principle from that which might be offered to explain why a pigeon which has been trained to peck at an initial sample of green things goes on to peck at further green things rather than at further grue things.

Now so far the account I am proposing coincides with the naturalistic view. In particular, it offers the same answer to the question of why the subject reproduces her representations according to a *green-* rather than a *grue*-like pattern. But on my proposed account there is something fundamentally different about the character of the process of reproduction, namely that, in spite of being naturally determined, it is also informed by the sense of primitive normativity which I have just described. It is not merely the case that impressions associated with previous perceptions of green things come to the subject's mind, it is also the case that they come to her mind with a sense of their appropriateness to the present circumstances of perception. This

distinguishes her imaginative reproduction from that of, say, the pigeon, which might also be supposed to recall sense impressions associated with previous perceptions of green things, in particular impressions of the reward it received when it pecked at them, but which cannot plausibly be supposed to take its imaginative response, or the pecking through which that response is manifested, to be appropriate to its present circumstances. And it also distinguishes her activity from other forms of imaginative reproduction which take place in human beings, but which are not involved in the constitution of perceptual experience, for example, when someone is reminded of a long-forgotten friend by the smell of the perfume she used to wear or the sight of a house she once lived in. In this last kind of case, even when the subject recognizes why the memory of her friend has come to mind, she still takes the association to be an idiosyncratic one, not one which might be regarded as in any sense required, or called for, by the perceptual circumstances. By contrast, on the view I am proposing, the kind of imaginative association which yields perceptual experience involves the subject's implicit awareness that she is responding imaginatively as she, and anyone else under the circumstances, ought to respond. She is implicitly aware, for example, that if she were instead to recall impressions associated with her previous perception of blue things, thus synthesizing in a *grue*-like pattern, she would be perceiving the present object wrongly.

I shall not attempt here to justify this proposed account, either as an interpretation of Kant's account of the synthesis involved in perception, or as a plausible view in its own right. What I do want at least to suggest, though—and this might stand as a partial justification for adopting it as a reading of Kant—is that the account offers a way of making sense of Kant's claim that experience requires understanding, while still accommodating its character as receptive. Experience requires understanding, on this account, because insofar as the subject's imaginative synthesis involves the awareness of its own appropriateness with respect to the circumstances, it carries with it the kind of commitment or endorsement that is characteristic of judging. In reproducing a previous impression with the sense that this is what is called for or required by her present circumstances, she is in effect making a normative demand: that she, and anyone else in her circumstances, ought to synthesize in just this way. And because of this, I want to suggest, her synthesis counts as an act of judgment, or equivalently, as an exercise of spontaneity and hence of understanding. To adopt McDowell's terms for characterizing the spontaneity of judgment, she takes responsibility for her synthesis: even though the way she synthesizes is not in fact "up to her," she nonetheless commits herself to it and thus in a sense makes it her own.

When I introduced the nuanced approach in section II, I described it as one on which—in contrast to the straightforward approach—the understanding's role in experience differs from that of judging in the traditional sense. I took, as the paradigm for such an approach, a view on which the understanding guides or directs the synthesis of the sensible manifold by prescribing rules which the imagination follows, and I noted that the activity of understanding on this kind of view could

be described as a kind of judging, albeit intuitive rather than discursive. The account which I am proposing has in common with the nuanced approach that the role it ascribes to understanding in experience is different from that played by understanding in the formation of discursive judgments. It denies that understanding's role in experience is that of combining concepts, or at any rate concepts which the subject already possesses. But my account departs from the nuanced approach, at least in the paradigmatic form just mentioned, in the way it construes the role of understanding in experience. For it dispenses with the idea that understanding prescribes rules by which synthesis is guided, and more generally with the idea that understanding plays any directive role at all. The role of understanding is exhausted by our appreciation, in synthesizing, that we are synthesizing as we ought. While we are indeed aware, in synthesizing, of how we ought to synthesize (in the form of the demonstrative awareness that in *these* circumstances we ought to synthesize *like this*) this appreciation does not play any role in determining how the manifold is in fact synthesized by us. So, just as on the purely naturalistic account, our synthesis is not guided by our appreciation of how we ought to synthesize, nor by our grasp of rules governing our synthesis. It is for this reason that we can continue to think of it as passive or receptive even while allowing that it involves understanding: that we synthesize in accordance with one pattern rather than another is a function solely of how we are affected and of our natural dispositions to associate the corresponding sense impressions.

This point of contrast between the approach I am proposing, and the nuanced approach in its paradigmatic form, helps us to see how my approach avoids the apparent dilemma faced by the nuanced approach with respect to the "blindness" of unsynthesized intuition. We saw that the nuanced approach has to interpret unsynthesized intuitions as different from, and more specifically as falling short of, sense data as understood by the empiricists. For otherwise it faces, with the straightforward view, the threat of triviality. If unsynthesized intuitions are not blind—if, like the sense data of the empiricists, they present us not only with individual things but also with determinate qualities like shapes and colors—then it would seem that it is these intuitions, rather than the product of their synthesis, which deserve the title of experience. And if that is so, then Kant has then shown that the categories are required for experience only in a contrived sense of "experience," corresponding not to perceptual experience in the empiricist sense, but rather to what the empiricists would have characterized as empirical judgment or knowledge. But, as we also saw, insistence on the blindness of unsynthesized intuitions seems on the other hand to prevent our ascribing to them any role in determining the content of the experience that results from their being synthesized. For if the intuitions cannot indicate to the understanding how they are to be synthesized—if, in Sellars's metaphor, they have no "voice" in the outcome of synthesis—then it would seem that the rules for synthesis must derive from the understanding alone. Intuitions are debarred from playing a guiding role in the constitution of experience: so it would seem that the only source of rules to guide the process of synthesis must be the understanding

in isolation. Understanding prescribes rules for synthesis, but, it would seem, without benefit of any cues from sensibility about which rules are appropriate, either in general, or with respect to any manifold in particular.

The account which I am proposing grasps the first horn of the apparent dilemma. Unsynthesized intuitions play a causal, not a guiding, role in the constitution of experience: given our natural dispositions to associate representations one way rather than another, sense impressions of a kind typically elicited by a green cube will cause us to reproduce impressions elicited previously by green things and cubes, but they will not indicate to us that we *ought* to recall these impressions in preference to any others. There is thus no threat that having such impressions, prior to synthesis, amounts to our being aware of what is given to us as green, or as a cube.[43] Such awareness is possible only if we actually call to mind impressions previously elicited by green things and cubes, with the sense that what we are doing is appropriate. But the denial that sense impressions guide our activity of synthesis does not yield the consequence that the rules of synthesis are determined by understanding alone. For what determines which rules govern our synthesis—whether it is governed in general by *green*- or *grue*-like roles, or whether on a particular occasion we ought to synthesize according to the rule *green* or according to the rule *blue*—is how we are in fact disposed to synthesize, which is a fact about what Kant would call our "sensible nature" rather than the faculty of understanding. That our synthesis counts as governed by normative rules *überhaupt* is a function of the awareness of normativity which it involves, and it is in virtue of this awareness of normativity that we can say that the understanding is involved in experience. But, at least when it is a question of empirical rather than pure concepts, the understanding does not determine that synthesis is governed by one rule in preference to any other: rather, it makes it the case that the natural regularities of association to which our imaginative reproduction in fact conforms can also be viewed as providing normative standards for, and hence as normatively governing, the activity of synthesis.

I now want to return briefly to the comparison with McDowell's view which I hinted at in the previous section. I indicated there that, while my interpretation of Kant agrees with McDowell's in holding that perceptual experience does not require guidance from preconceptual or unsynthesized intuition, it diverges from McDowell's in denying both that experience lacks the commitment or endorsement characteristic of judgment, and that it draws on antecedently possessed conceptual capacities. But it is important to note that I do not take the denial that experience depends on *antecedently possessed* concepts to imply that the content of experience is not conceptual at all. For in fact I believe that perceptual experience, as understood on the account I am proposing, should be counted as having conceptual rather than nonconceptual content. When the subject whose senses are affected by a green cube calls to mind impressions elicited by previously perceived green things and of cubes, and does so with the sense that she is responding appropriately to her circumstances, she is *eo ipso* perceiving what is given to her *as* green and *as* a cube: and, as I see it, this is just what it is for the concepts *green* and *cube* to figure in her

experience.[44] The normative claim implicit in her experience allows us, then, to think of her experience not only as an exercise of judgment, but also as having conceptual content. A subject with the same dispositions to associate her representations, but without the sense, in actualizing these dispositions, that she is doing as she ought, would merely be manifesting a capacity to respond differentially to green things and to cubes. But given her awareness of a normative dimension to what she is doing, she counts as applying the concepts *green* and *cube* to what is presented to her, even if she did not possess those concepts prior to the experience in question.[45]

I am thus in agreement with McDowell that, when a normal adult subject sees a green cube, her experience can be described as one in which she sees that there is a green cube in front of her. And I also agree with McDowell both that the content of this experience is something which she is, in effect, "saddled with," and that this is what allows us to say that her experience has a receptive character. But because I do not suppose that she has to possess the relevant concepts prior to having the experience, my account can do better justice than McDowell's to the receptivity of experience. A subject can be saddled with the conceptual content of her experiences only under the condition that she is saddled with the concepts which figure in those experiences, and we saw that on McDowell's view that condition does not appear to hold. Whereas on the view I am proposing, the subject is saddled not only with that particular propositional content on that particular occasion, but with the concepts themselves which figure in that content, since they are determined by her natural dispositions to associate representations one way rather than another. So there is a sense in which, on my account, the receptivity of experience is more thoroughgoing than on the view presented by McDowell.

But my account allows at the same time for a more demanding interpretation of the spontaneity involved in experience, and in particular of the idea that experience requires understanding construed as the capacity to judge. For, unlike McDowell, I do not take the receptivity of experience to rule out that, in having a perceptual experience, one commits oneself to, or endorses, the content of that very experience. On McDowell's view, as we saw, having an experience does not involve one's actualizing one's capacity to judge in the sense of actually *judging*, and this is so precisely because judging requires the kind of endorsement which McDowell thinks is incompatible with the receptivity of experience. So there is only an attenuated or indirect connection between what one does (or what takes place in one) when one has an experience, and what one does in judging: rather than employing one's capacity to judge, one draws on concepts which are paradigmatically employed in judging, but which are not being used to judge in this particular instance. On my reading, however, it is intrinsic to a subject's perceptual experience that she takes herself to be perceiving as she ought, so that her experience has built into it the kind of normative commitment characteristic of judgment. And it is this commitment, rather than dependence on concepts as such, which I take Kant to be signaling with his claim that experience "requires understanding."[46]

I want to conclude by commenting briefly on what might seem to be a striking omission in my account of what it is for experience to require understanding:

namely, that I have said nothing about the contribution of the categories to the constitution of experience. Surely, it might be protested, we cannot do justice to the role of understanding in experience without acknowledging that experience involves *a priori* connections among our sensible representations, and more specifically, that these *a priori* connections come about through understanding's application of the pure concepts to the sensible manifold. In characterizing the role of understanding in experience simply as the awareness of normativity in our synthesis, I seem to have left out of account what, to any reader of the *Critique of Pure Reason*, will seem like the most crucial contribution of understanding to experience, that is, that it allows us to conceive the objects of our experience as substances, endowed with qualities, standing in causal relations, and so on.

While there is much to be said about this issue, I will confine myself here to recalling a point which I made in the introduction and then again in section II, in response to the fourth line of defense which I proposed for the nuanced approach. Kant's project of showing that the pure concepts are conditions of the possibility of experience cannot succeed, as I see it, unless we can make sense of the idea that experience requires concepts, and thus the understanding, *überhaupt*. But it is just this idea whose coherence is challenged by what I have been calling the "problem of experience." The problem of experience is the problem of how we can conceive of experience as requiring any contribution of understanding at all—whether this contribution is realized in the form of pure concepts, in the form of empirical concepts, or in any other way—while still acknowledging its character as receptive. And that problem cannot be addressed by appealing to the role of the categories in experience, since if we cannot make sense of how experience can involve concepts *überhaupt*, then we cannot make sense of the role of the categories in experience either. Here it is important to bear in mind that Kant's concern in the *Critique of Pure Reason* is not the problem of experience, but rather the problem of how we can have substantive cognition *a priori*. So when he describes the categories as "conditions of the possibility of experience" he is not appealing to the categories as providing an answer to the problem of experience, but rather claiming the necessity of the categories for experience with a view to defending their objective validity and hence the validity of the *a priori* judgments in which they figure. However his claim, as I understand it, depends on a certain conception of experience which is problematic for reasons which have nothing to do with pure concepts as such, but rather with the very idea that experience can be conceptual or, more generally, that it can require understanding. It is that idea, in its most general form, which has been my concern in the present article.

NOTES

This paper expands on a talk given at a North American Kant Society meeting in April 2004; subsequent versions were presented at UCLA and to the philosophy discussion group of the Max Planck Institute

for the History of Science in Berlin. I am grateful to Quassim Cassam for his insightful comments on the original presentation and to audiences and participants on all three occasions, including Tyler Burge, Katherine Dunlop, Barbara Herman, Pamela Hieronymi, Katharina Kaiser, Edwin McCann, Seana Shiffrin, Thomas Sturm, Udo Thiel, Bernhard Thöle, and Falk Wunderlich. For criticism, suggestions and discussion on other occasions, I am grateful to David Forman, Stefanie Grüne, Patricia Kitcher, Ulrich Schlösser, Sally Sedgwick, Houston Smit, Daniel Warren, and especially Eric Watkins, who commented very helpfully on the paper at several stages in its development. I would also like to acknowledge the American Council of Learned Societies and the Max Planck Institute for the History of Science for their support during work on this paper.

1. Of the commentators with whose work I am familiar, the two who come closest to engaging directly with the problem I have in mind are Wilfrid Sellars and, building on Sellars´s work, John McDowell. For Sellars´s approach, see his *Science and Metaphysics* (1968), especially chapter 1, and, in addition, his 1967, 1976, and 1978. McDowell's approach, which is presented in his *Mind and World* (1994) and his Woodbridge Lectures (1998), will be the focus of section III. A number of commentators have addressed the closely related difficulty of how "blind" intuitions of sensibility can constrain the activity of understanding in judgment; in addition to Sellars and McDowell, see for example Pippin (1982, especially chapter 2), Walker (1985), and, more recently, Manning (2006). I discuss this difficulty in what follows, especially section II, but in my view it is most helpfully treated as part of the broader problem I try to articulate here.
2. I follow the standard practice in quoting from Kant, using the A and B page numbering for the first *Critique* and volume and page number of the *Akademie* edition (1902–) for passages from other texts. Translations are my own, but I have consulted, and often followed, those of Kemp Smith (Kant 1929), of Pluhar (Kant 1996), and of Guyer and Wood (Kant 1998).
3. By "experience . . . in the sense associated with the empiricist tradition," I have in mind primarily the simple sensory ideas of Locke and Berkeley, and to some extent Humean impressions. It is, of course, controversial how these sensory ideas and impressions are to be understood, and one might question both whether it is possible to isolate a single empiricist conception of "experience," and, if so, whether it is any less subject to worries about incoherence than I take Kant's to be. Nonetheless I will assume throughout that readers will recognize, both in the eighteenth-century empiricist tradition, and in more recent discussions of perception within epistemology, something corresponding to the distinction I am drawing here between experience on the one hand and judgment on the other, and I am hoping that the distinction has enough prima facie plausibility to serve as a backdrop for the worries I want to raise about Kant's view.
4. I will abbreviate this point in what follows as the "threat of triviality." Eric Watkins has suggested to me that, whether or not Kant can show that the pure concepts are required for perceptual experience in what I am calling the empiricist sense, it could still be a substantive achievement to show that empirical judgment requires the use of a priori functions of the understanding, and, more specifically, of the categories. So perhaps "triviality" is too strong a term. Still, it has to be conceded that Kant's conclusion, understood in the light of this approach, is considerably less significant than might be hoped.
5. Commentators who take the passage at face value include Beck (1978) and Hanna (2001, 199; 2004, 259–60). As Beck notes, both Norman Kemp Smith and H. J. Paton take the contrary view, although they differ in their accounts of the role that the passage plays in the text: Kemp Smith takes it to represent a remnant of pre-critical writing, whereas Paton holds that Kant was, for pedagogical reasons, raising a possibility he later intended to reject (Beck 1978, 39–40). Other commentators who take Kant ultimately to reject the possibility raised in the passage include Robert Paul Wolff (1963, 93–94 and 190) and Guyer and Wood (Kant 1998, 725 n.17).
6. Hanna challenges this standard reading of §26 by appealing to a distinction between "forms of intuition" and "pure or formal intuitions" (2004, 277); it is only the latter, he says, which necessarily involve our conceptual capacities. It is not clear to me, though, how Hanna's reading succeeds in accounting for Kant's conclusion at §26 that all perceptual synthesis is subject to the categories (see the paragraph following in the text).
7. The question of the division of labor between imagination and understanding is a difficult one; I discuss it in more detail in section II of "Lawfulness without a Law" (Ginsborg 1997). Some

commentators have denied that the imaginative synthesis required for perception is to be ascribed to understanding; for example, Hanna distinguishes "a lower-level or sensory (receptive) spontaneity" associated with the activity of imagination in perception, and a "higher-level or conceptual (discursive) spontaneity" belonging to the understanding (2001, 37). But, as with the point mentioned in the previous note, it is hard to see how Hanna's view is to be reconciled with the passages from §26 that I go on to quote in the text, and there is also something paradoxical about the idea of a spontaneity which is, itself, receptive.

8. I am adopting Longuenesse's version of this approach as my starting point because it suggests a useful prima facie distinction between the respective roles of imagination and understanding: understanding prescribes the rules and imagination follows them. This aspect of her view is of a piece with Strawson's suggestive characterization of imagination as the "lieutenant" of understanding (1966, 97). Another version is offered by Sellars, for whom the role of understanding in perceptual experience is that of making possible conceptual representations with a form like "this cube" which are not themselves judgments, but which are required for us to have representations like "this cube is a die," which are judgments (1968, 4–6; 1967, 636–38). In *Science and Metaphysics*, Sellars does not characterize understanding as offering rules for imagination, but rather identifies the two faculties: imagination "under the name 'productive imagination'" (i.e., in its role as making possible perceptual experience) just "is the understanding functioning in a special way" (1968, 4). But in "The Role of the Imagination in Kant's Theory of Experience" (1978), Sellars describes the productive imagination as a "blend of a capacity to form images in accordance with a recipe, and a capacity to conceive of objects in a way which supplies the relevant recipes" (§31, 238, emphases omitted); this suggests a model on which imagination follows rules supplied by understanding, although both the rule-supplying role and the rule-following role are ascribed to productive imagination as a single faculty.
9. Sellars officially denies that synthesized intuitions count as judgments; in generating "intuitive representings of the 'this-cube' form" we generate, not judgments, but "the subject-terms of perceptual judgments; thus, for example 'This cube is a piece of ice'" (1967, 638). But he also speaks of the latter kind of representing as a "full-fledged judgment" (ibid.), suggesting that perceptual representings of the "this-cube" form are at least fledgling judgments, and he also proposes to simplify his treatment of Kant by abstracting from the distinction between intuitive representings and judgments (ibid.).
10. I offer some support for this reading of Locke and Berkeley in section II of my 2006. I also give reasons there for suggesting that Hume's view is quite different.
11. Something like this interpretation of the "blindness" of unconceptualized intuition is suggested in Hanna (2001). An unconceptualized intuition is a "bare sensory indicator" (47) of its object; my sensory field in such an intuition "manifestly includes an occupant, but yields no further determination of the discriminating characteristics of that occupant" (49); someone who intuits a red object "blindly" sees "an obscure *this X now over there*" but not yet "*this red thing*" (50); the so-called savage in the *Jäsche Logic* who lacks the concept *house* "sees a house but not *as* a house" (200). But it is not easy to square this interpretation with a weaker construal of "blindness" defended in some other passages in Hanna (2001) and also in Hanna (2004, see note 20).
12. Although Kant sometimes distinguishes concepts from the corresponding rules or schemata, I will treat concepts as identical with rules, as suggested by Kant's treatment of the concept of body at A106. I discuss the relation between concepts and rules of synthesis in section II of my "Lawfulness without a Law" (1997).
13. I here follow Pluhar's translation of *verzeichnen*. Two further passages cited by Sellars in support of the "drawing" model are B137–38, where Kant says that "to cognize something or other—e.g., a line—in space, I must *draw* [*ziehen*] it," and A102, where he describes the "synthesis of reproduction" in imagination as needed to "draw [*ziehen*] a line in thought" (see Sellars 1967, 643).
14. The drawing or image formation model, incorporating the idea that we come to see something as an F by forming an image of it in accordance with the rule or concept F, is developed in Strawson 1970 and, in an especially detailed way, in Sellars 1978.
15. Longuenesse makes a similar point about the limitations of Kant's analogy between synthesis and mathematical construction (1998, 48).
16. As acknowleged, for example, in Paton's claim that "the concept 'house' is at work, even if uncon-

sciously" in the synthesis by which we "[combine] a series of given appearances into the complex intuition of one individual house" (1936, vol. 1, 264). See also Hanna: "one must employ an *empirical concept* in order to overcome the indistinctness or blindness of a bare intuition" (2001, 49; Hanna's emphasis).

17. I give the second of these examples because some people have objected that Goodman's actual *grue*, with its reference to a specific time, is automatically excluded as a potential rule of synthesis by the status of time as one of the forms of sensibility. (For a more general version of this objection, see the next note.) I am not myself persuaded by the objection, but readers who are troubled by the time reference in Goodman's *grue* or by the reference to a particular spatiotemporally located individual in the first of my examples should understand my references to "grue-like" concepts as picking out examples like the second.
18. A number of people have suggested to me that Kant's various *a priori* constraints on experience—the forms of intuition, the categories, and in particular the *a priori* principles of reason and reflective judgment—are sufficient to rule out grue-like and other nonstandard concepts. The thought behind this seems to be that any set of empirical causal laws governing objects in space and time and meeting Kant's requirements on systematicity would have to be framed in terms of concepts like ours, rather than their grue-like or disjunctive alternatives. But I do not see why, if human imagination consistently synthesized everything that was given to it in a grue-like way, we could not arrive at a system of experience no less successful than our own in meeting Kant's *a priori* requirements.
19. According to Walker 1985, this is in fact the view represented in the first edition of the *Critique*.
20. Hanna argues in his 2004 that the "blindness" of unconceptualized intuitions is compatible with their qualifying as a kind of cognition and as being objectively valid. Kant's claim that intuitions without concepts are blind is meant to maintain the interdependence of intuitions and concepts "*only for the specific purpose of constituting objectively valid judgments*" (2004, 257; see also 2001, 203). This means that the blindness of intuitions amounts simply to the fact that they do not, on their own, amount to or constitute judgments; for them to constitute judgments, they must be complemented by concepts. Moreover, he claims in a different but related context that experiences with nonconceptual cognitive content—hence, presumably, "blind" intuitions—can stand in evidential or justificatory relations to belief or judgment. This is because "the intrinsic spatiotemporal structural phenomenal (in Kant-speak, "aesthetic") character of such experiences . . . confers an *optimal phenomenal articulation or lucidity* upon their nonconceptual perceptual content, and thereby, just by virtue of this optimally articulated or lucid content, *synthetically necessitates* the perceiver's assertoric belief in a corresponding propositional content that is cognitively built right on top of that nonconceptual perceptual content" (2004, 264). This weak interpretation of the blindness of intuitions, which allows them an "optimally articulated" content standing in justificatory relations to belief, is of a piece with Hanna's apparent endorsement of the straightforward view: intuitions, it would seem, qualify as experience in the empiricist sense, and the understanding is required not for the possibility of experience as such, but only for making judgments on the basis of experience. But this way of understanding blindness seems to me to be incompatible with his other characterizations of "blind" intuitions as indeterminate indicators of space-occupancy (see note 11).
21. It might be replied that my experience of what is given as a dog incorporates, not a *judgment* on the *basis* of the given data, but rather an *interpretation of* that data. Relatedly, the work of synthesis might be seen as that of interpreting elements given in sensory intuition, rather than as on the model here under discussion, combining them. A view like this is at least hinted at in Prauss 1971 (see especially §3 and §7) and in Kitcher 1999 (see 431–34). But even if we allow the distinction—which seems to me to be unclear—between offering an interpretation of given data and making judgments based on the data, it is still hard to see how the appeal to interpretation can avoid the problems discussed in the text. An interpretation must be, at least to some extent, normatively constrained by the data which it interprets, and the question of how sensible data can constrain the interpretation while still counting as "blind" is no less difficult than the question of how the unsynthesized manifold of intuition can determine the rules according to which it is to be combined.
22. A related view has been suggested to me, in conversation, by Eric Watkins.

23. This line of thought is at least hinted at in Longuenesse's remark that, for Kant, "universals" (that is, concepts) "represent resemblances lending themselves to 'rules of apprehension'" (1998, 120). Mark Okrent also appeals to the idea that we can be "acquainted with difference and similarity" or that we can "*see* similarities and differences" in a way which does not presuppose understanding (2006, 106).
24. Okrent aims to overcome this kind of difficulty by appeal to a "non-conceptual intuitive grasp" or "non-conceptual intuition" of similarity and difference (2006, 107); he allows that we do not have a good grasp on what this involves, but still thinks that its possibility is guaranteed by the fact that animals have it. However, it is not clear to me that we can say of animals that they grasp the similarities and differences among their representations, as opposed to merely that they have representations which in fact stand in relations of phenomenological similarity and difference. Moreover, it is also not clear to me whether the notion of a nonconceptual intuition of the similarities and differences among things is any less problematic than appeal to a nonconceptual intuition of, say, their colors and shapes: to grasp a similarity between things is to grasp a certain relation in which they stand to one another, but nonconceptual intuition, being singular, would seem no better able to provide a grasp of the relations between things than of their nonrelational properties or features. The point here is related to one made by Sellars at §29 of "Empiricism and the Philosophy of Mind" (1956, 289).
25. This is one possible way of spelling out Sellars's view that while nonconceptual intuitions do not present us with, say, colors, they do have "characteristics which, *without being colours*, are sufficiently analogous to colour to enable [them] to play [a] guiding role" in conceptual representation (1968, 18). The thought seems to be that our coming to see objects as having determinate observable properties is the joint result of our having intuitions with characteristics analogous to these properties, and our synthesizing these intuitions in accordance with the pure concepts of the understanding (1968, 30).
26. This account of image formation draws on Strawson (1970) and Sellars (1978); I return to it in section IV (see note 42).
27. The label is drawn from McDowell (1996, xxi).
28. In speaking here of a "trilemma," I am simplifying McDowell's own conception of how the various positions are dialectically related: McDowell describes us as subject to an "oscillation" (1994, 9) between coherentism and the idea of the Given, and he introduces "bald naturalism" not as a competing position on the same level as coherentism and the appeal to the Given, but rather as an "opting out" of the area of philosophy in which the problem of empirical content arises (ibid., 67). The next note describes a related simplification.
29. My reference to a "solution" again simplifies McDowell's position: McDowell takes himself, not to be answering the question of how empirical content is possible, but rather to be "exorcising" the philosophical anxieties which it expresses. Like bald naturalism (see the previous note), the position developed by McDowell is intended not to provide a solution, but to show that there is no problem (1996, xx–xxi). There is, however, a broad sense in which McDowell's "exorcism" can be seen as proposing a solution, albeit to a higher-level problem: that of how we are to conceive of experience and its relation to judgment in such a way that the anxieties bundled into the "problem of empirical content" do not arise. For ease of exposition I shall continue to describe McDowell, and McDowell's Kant, as offering a solution to the problem of empirical content, although, strictly speaking, any solution they offer is to the higher-level problem rather than to the problem of empirical content proper.
30. The various defenses of the nuanced view which I described in the previous section correspond to versions of these three positions, transposed to the level of experience: the first four defenses appeal in various ways to the idea of the Given, the fifth represents a form of coherentism, and the sixth amounts to a "bald naturalist" position.
31. "Corresponding to the concept *green*" abbreviates the idea that it is the conceptual capacity which would be exercised both in judging that there is a green cube in front of one and in judging that there is a green pyramid in front of one (1998, 438).
32. This line of objection has been developed by Barry Stroud (2002). I develop it further in "Reasons for Belief" (2006c).
33. See Pippin (2002, 60).

34. Consistently with his rejection of a "sideways-on" view of concepts (discussed later in this section), McDowell might object here that this is not what he means by "innate potentialities": the potentialities which *Bildung* actualizes, he might say, are not potentialities to use words in this or that pattern, where the pattern is described in a meaning-free way, but rather potentialities to use words *with this or that meaning*, say, the potentiality to use a word like "green" in such a way as to mean *green*. But this does not seem to fit with his claim that "human beings are . . . born mere animals, and they are transformed into thinkers and intentional agents in the course of coming to maturity" (1994, 125); human beings would be born, on this view, not as mere animals but rather—in contrast to animals, at least as conceived by McDowell—as potential thinkers.
35. Talk of the "content of concepts" might seem problematic; perhaps, as Colin McGinn argues (although in a somewhat different context comparing concepts with words of a language) a concept just *is* its content (1984, 146). But McDowell himself sometimes speaks of the "content" of concepts (1994, 19, 33); and in any case the point can be rephrased to avoid the locution: we can say for example that it is only its relation to other concepts which makes a given concept the particular concept that it is.
36. The worry that McDowell's view represents a form of coherentism or (more or less equivalently) idealism is not new: it is raised, for example, by Michael Friedman (1996; see especially 442–44) and by Richard Manning (2006), and it is also considered by McDowell himself in both *Mind and World*, especially lecture II, and in the Woodbridge Lectures, especially 466–73. My version of the worry differs from those mentioned in that it focuses on the content of concepts, rather than on the contents of propositional items such as thoughts and judgments.
37. In his reply to a paper by Dennis McManus, McDowell emphasizes that we might find ourselves, after reflection, "stuck with" certain rational connections (2000, 334), and I take it that the same point would apply to concepts. So McDowell might say here that the concepts *green* and *cube* are concepts that we discover, on reflection, just cannot be given up or revised, at least barring radical changes in the environment (e.g., to cite his example at ibid., 333, human visual responsiveness to light no longer being keyed to wavelength). However, the sense in which we would find ourselves "stuck" with these concepts, would, I think, have to be the kind of sense McDowell goes on to illustrate with Luther's "I can do no other" (ibid., 334). Luther thought he had no choice but to stand where he stood; but this does not mean, as McDowell points out, that he thought that his action was not free. By the same token, if we find that we have no choice but to endorse the kinds of rational connections which commit us to a system of concepts including *green* but not *grue*, it still does not follow that these concepts are not "up to us"; and it is this last thought that provokes the worry about a form of coherentism.
38. In fact McDowell does at one point raise a question about what he calls the "empirical substance" of concepts (which, as the last sentence on page 33 of 1994 suggests, is equivalent to their "empirical content"; see also the equation of "content" and "substance" at 1994, 4). Specifically, he says that the sideways-on picture is incapable of depicting "anything genuinely recognizable as an understanding of a set of concepts with empirical substance," because the fact that "these supposed concepts could be bound up with impacts from the world only causally, not rationally . . . leaves their status as concepts with empirical substance, potential determinants of the content of judgments that bear on the empirical world, a mystery" (ibid., 35). McDowell's thought here seems to be that concepts derive empirical content from the fact that they "determine the content of" judgments which, in turn, have empirical content in virtue of standing in rational relations to experience. Because the sideways-on view does not allow for rational relations between judgments and experience, it prevents us from making sense of judgments as having empirical content, and this in turn—so the thought goes—prevents us from making sense of concepts as having empirical content. But this explanation does not bear on the question about their empirical content which I have been raising, since it explains the empirical of concepts by appeal to experience construed as already presupposing conceptual capacities, whereas I have been asking how we are to make sense of the possession of conceptual capacities in a context where it is not already taken for granted that experience is conceptual.
39. David Forman makes the same point, also in connection with this passage, in his "Learning and the Necessity of Non-Conceptual Content in Sellars's 'Empiricism and the Philosophy of Mind'"(forthcoming). (He also argues that Sellars's view that sense impressions are needed for language learning does not originate with *Science and Metaphysics* but is already represented in

"Empiricism and the Philosophy of Mind.") He denies, however, that Sellars is committed to the kind of guiding role for sense impressions which McDowell finds objectionable; on this point I disagree with him.

40. See note 13 and the associated text.

41. This idea, and the development of it that follows, draw on the view of synthesis as "exemplary of rules" which I presented in "Lawfulness without a Law" (1997) and then developed further, as the view that synthesis involves a "primitive" appreciation of normativity, in "Thinking the Particular as Contained under the Universal" (2006). The idea is pursued further, although in a contemporary rather than a Kantian context, in "Empirical Concepts and the Content of Experience" (2006a) and "Aesthetic Judgment and Perceptual Normativity" (2006b).

42. Here I am drawing on a point argued by both Strawson (1970) and Sellars (1978). Sellars illustrates it with the example of a red apple, perceived from one side, which is seen as having a red opposite side and a white volume of flesh inside even though these are not directly perceived: the red opposite side and the white inside are "present as actuality in the visual experience" not because they are seen, but rather by virtue of being imagined (1978, §§16–18, 234–35). Strawson uses the example of a dog, which while silent and stationary, is seen as "a possible mover and barker" (1970, 40).

43. Manning argues, in reference to an earlier presentation of this account, that it cannot avoid ascribing "content" to the sensory representations which are associated in perceptual synthesis. "Surely [the representations] must have some particular distinguishing content, if it is to make sense to say that a natural disposition must associate some of these particular representations with some particular others. Associative dispositions must operate over features of the associated items even if they need not do so by means of some general rule. More basically, the representations over which dispositions operate must have some determinate features if it can be meaningfully said that the association groups distinct representations at all" (2006, 80). If this is correct, then my account is after all committed to a guiding, and not merely a causal, role for preconceptual sense impressions. But while I grant that such sense impressions must have determinate features, I do not think that this commits me to claiming that they have content in the relevant sense. My account can allow that sense impressions have distinctive phenomenological features which lead to their being associated one way rather than another: we might say that the kind of impression elicited by something green is phenomenologically distinct from the kind of impression elicited by something blue, and that that is why we are disposed to associate them differently. But we might equally well say that a pigeon's sense impressions have determinate phenomenological features responsible for their being associated in this or that determinate way, without taking this to imply that they have content, or correspondingly that they guide the pigeon by indicating how its sense impressions ought to be associated. Our sense impressions would indeed have content if, in addition to their having phenomenological features, we were aware of them *as* having these features; but that is not part of my account.

44. For more on this point, see my "Empirical Concepts and the Content of Experience" (2006a). It might be pointed out that the possibility which I am invoking—that a concept can figure in someone's experience without her possessing it antecedently to having the experience—is acknowledged by McDowell himself. For McDowell holds that the content of an experience can contain demonstrative concepts (say, the concept of a shade of color expressed by "that shade") which the subject does not possess prior to the experience but which are, rather, made possible by the experience itself (see his 1994, 56–60). But as far as I can tell McDowell appeals to this possibility only to address worries about the so-called fineness of grain of the content of experience, and does not take it, as I do, to apply in general to the concepts which figure in our experience.

45. Karl Ameriks makes the related point that "[p]erceiving something in a certain way can involve a concept even if it is not a matter of merely inferring from or subsuming under an already given concept" (2002, 313; he ascribes the point to Anthony Savile [1981, 364], but I find Ameriks's own statement of it clearer and also more closely related to my own view). Ameriks draws on this point to argue against my view, articulated elsewhere, that aesthetic perception for Kant is unlike cognitive perception in being nonconceptual. I regret having omitted to take his very interesting discussion into account in my recent (2006b) treatment of aesthetic and cognitive perception.

46. Patricia Kitcher makes a similar point when she describes McDowell as "offering an anodyne and

redundant reading of 'spontaneous' as 'conceptual'" (1999, 424), although her alternative understanding of spontaneity differs from mine.

REFERENCES

Ameriks, Karl. 2003. "New Views on Kant's Judgments of Taste." Originally published 1997; reprinted in *Interpreting Kant's Critiques*: 307–23. Oxford: Oxford University Press.

Beck, Lewis White. 1978. "Did the Sage of Königsberg Have No Dreams?" In *Essays on Kant and Hume*: 38–60. New Haven, Conn.: Yale University Press.

Davidson, Donald. 1986. "A Coherence Theory of Truth and Knowledge." In *Truth and Interpretation: Perspectives on the Philosophy of Donald Davidson*, ed. Ernest LePore. Oxford: Blackwell.

Forman, David. Forthcoming. "Learning and the Necessity of Non-Conceptual Content in Sellars's 'Empiricism and the Philosophy of Mind.'" In *The Self-Correcting Enterprise: Essays on Wilfrid Sellars*, ed. M. P. Wolf and M. N. Lance. Amsterdam and New York: Rodopi.

Friedman, Michael. 1996. "Exorcising the Philosophical Tradition: Comments on John McDowell's Mind and World." *Philosophical Review* 105, 4: 427–67.

Ginsborg, Hannah. 1997. "Lawfulness without a Law." *Philosophical Topics* 25, 1.

———. 2006. "Thinking the Particular as Contained under the Universal." In *Aesthetics and Cognition in Kant's Critical Philosophy*, ed. Rebecca Kukla. Cambridge: Cambridge University Press.

———. 2006a. "Empirical Concepts and the Content of Experience." *European Journal of Philosophy* 14, 4: 372–95.

———. 2006b. "Aesthetic Judgment and Perceptual Normativity." *Inquiry* 49, 5: 1–35.

———. Forthcoming. "Reasons for Belief." *Philosophy and Phenomenological Research*.

Hanna, Robert. 2001. *Kant and the Foundations of Analytic Philosophy*. Oxford: Oxford University Press.

———. 2004. "Kant and Nonconceptual Content." *European Journal of Philosophy* 13, 2: 247–90.

Kant, Immanuel. 1902–. *Gesammelte Schriften*. Edited by the Prussian [now German] Academy of Sciences. Berlin: De Gruyter.

———. 1929. *Critique of Pure Reason*. Translated by Norman Kemp Smith. London: Macmillan.

———. 1996. *Critique of Pure Reason*. Translated by Werner Pluhar. Indianapolis: Hackett.

———. 1998. *Critique of Pure Reason*. Edited and translated by Paul Guyer and Allen Wood. Cambridge: Cambridge University Press.

Kitcher, Patricia. 1990. *Kant's Transcendental Psychology*. Oxford and New York: Oxford University Press.

———. 1999. "Kant's Epistemological Problem and Its Coherent Solution." *Philosophical Perspectives* 13: 415–41.

Longuenesse, Béatrice. 1998. *Kant and the Capacity to Judge*. Princeton, N.J.: Princeton University Press.

Manning, Richard. 2006. "The Necessity of Receptivity." In *Aesthetics and Cognition in Kant's Critical Philosophy*, ed. Rebecca Kukla. Cambridge: Cambridge University Press.

McDowell, John. 1994. *Mind and World*. Cambridge, Mass.: Harvard University Press.

———. 1996. *Mind and World* (paperback edition with new introduction). Cambridge, Mass.: Harvard University Press.

———. 1998. "Having the World in View: Kant, Sellars and Intentionality" (The Woodbridge Lectures, 1997). *Journal of Philosophy* 95, 9: 431–91.

———. 2000. "Comments." *Journal of the British Society for Phenomenology* 31, 3: 330–43.

McGinn, Colin. 1984. *Wittgenstein on Meaning*. Oxford: Blackwell.

Okrent, Mark. 2006. "Acquaintance and Cognition." In *Aesthetics and Cognition in Kant's Critical Philosophy*, ed. Rebecca Kukla. Cambridge: Cambridge University Press.

Paton, H. J. 1936. *Kant's Metaphysic of Experience*. London: George Allen & Unwin.

Pippin, Robert. 1982. *Kant's Theory of Form*. New Haven, Conn.: Yale University Press.

———. 2002. "Leaving Nature Behind." In *Reading McDowell*, ed. Nicholas H. Smith: 58–75. London and New York: Routledge.

Prauss, Gerold. 1971. *Erscheinung bei Kant*. Berlin: De Gruyter.

Quine, Willard Van Orman. 1969. "Natural Kinds." In *Ontological Relativity and Other Essays*. New York: Columbia University Press.
Savile, Anthony. 1981. "Objectivity in Kant's Aesthetic Judgment: Eva Schaper on Kant." *British Journal of Aesthetics* 21: 364–69.
Sellars, Wilfrid. 1956. "Empiricism and the Philosophy of Mind." In *Minnesota Studies in the Philosophy of Science*, Volume I, ed. Herbert Feigl and Michael Scriven. Minneapolis: University of Minnesota Press. 253–329.
———. 1967. "Some Remarks on Kant's Theory of Experience." *Journal of Philosophy* 64, 20: 633–47.
———. 1968. *Science and Metaphysics*. London: Routledge and Kegan Paul.
———. 1976. "Kant's Transcendental Idealism." In *Proceedings of the Ottowa Congress on Kant*. Ottowa: University of Ottowa Press, 165–81.
———. 1978. "The Role of the Imagination in Kant's Theory of Experience." In *Categories: A Colloquium*, ed. Jr. Henry W. Johnstone: Department of Philosophy, The Pennsylvania State University.
Strawson, P. F. 1966. *The Bounds of Sense*. London: Methuen.
———. 1970. "Imagination and Perception." In *Experience and Theory*, ed. Lawrence Foster and J. W. Swanson. Amherst: University of Massachusetts Press.
Stroud, Barry. 2002. "Sense-Experience and the Grounding of Thought." In *Reading McDowell*, ed. Nicholas H. Smith. London and New York: Routledge.
Walker, Ralph. 1985. "Synthesis and Transcendental Idealism." *Kant-Studien* 76: 14–27.
Wolff, Robert Paul. 1963. *Kant's Theory of Mental Activity*. Cambridge, Mass.: Harvard University Press.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Kant on Beauty and the Normative Force of Feeling

Arata Hamawaki
Auburn University

Kant's account of "judgments of taste," his phrase for the judgments that state that a thing is beautiful, can be seen as seeking to locate a position that is intermediate between what could be described as objectivist and subjectivist accounts of aesthetic phenomena. Broadly speaking, an objectivist account aims to treat beauty as a property of an object, one that the object possesses independently of particular experiences of the object, if not of human experience as such.[1] A subjectivist account treats beauty as a "projection" of some state of the mind onto objects, if not of a mere sensory content, then of some psychological state induced by the operation of one's cognitive faculties.[2] Like the subjectivist, Kant held that the judgment that a thing is beautiful rests on a feeling of pleasure and that what is special about this feeling of pleasure is that it expresses what on a natural reading appears to be a special kind of psychological state of subject, the state of a mutually stimulating harmony of the cognitive faculties, in particular, of the imagination and the understanding. And in this regard he distinguished aesthetic judgments from judgments that attribute real properties to an object. Like the objectivist, he also held that this state is itself a condition of the possibility of a cognition in general, or more precisely, of a cognitive judgment in general, and so bears an important connection to judgments that do attribute a property to an object, even if, strictly speaking, judgments of taste do not do so.

Thus while Kant's view may in the end be subjectivist in some sense, it differs from some standard empiricist forms of subjectivism in resisting the treatment of

beauty as the "projection" onto objects of a sensory content. If his view can be called "subjectivist," it would have to be understood as a kind of "formal" subjectivism. Correspondingly, while Kant insists on the normativity of judgments of taste, he just as strongly resists an explanation of the normativity that appeals to concepts and rules, the sort of explanation that is favored by rationalist forms of objectivism. He thus makes a move in the field of aesthetics, the general form of which will be familiar to readers of his theoretical and practical philosophy. He identifies a new position that is intermediate between objectivism and subjectivism (and rationalism and empiricism) by showing that opposed as those positions undoubtedly are, it is possible to disentangle and then to combine separate commitments of those outlooks, in order to form a third view, one that can claim to combine what is best in the earlier positions.[3]

The slipperiness of a genuine third position, a "Critical" position, if you will, is registered by the fact that readings of Kant tend to push him in the direction of one or the other of the earlier views which he criticizes. I believe that this describes to some extent the current situation with respect to interpretations of Kant on judgments of taste. Thus, on the one side, we have readers who take Kant's talk of a harmony of the cognitive faculties as the ground of judgments of taste quite seriously, and so view him as committed to thinking of the ground of these judgments as a kind of psychological state which is disclosed by the feeling of pleasure.[4] Such readers are hard put to explain how on this view judgments of taste can legitimately make a claim to universal agreement with them, something Kant clearly aimed to explain, and so are inclined to declare Kant's account a failure. However, whether or not you agree with that assessment, it's hard even to see how Kant can, on this type of account, even intelligibly seek to use the account to explain anything more than the mere expectation of de facto universal agreement with the judgment. For to attempt to offer a psychological explanation of the normativity of a judgment would seem to convict Kant of committing a kind of gross naturalistic fallacy, which would be an odd accusation to make of him, of all people, given his insistence, woven throughout other regions of his philosophy, on a sharp distinction between 'is' and 'ought'. Perhaps recognizing this, these readers tend toward the view that Kant didn't really hold that judgments of taste give expression to the claim that everyone *ought* to agree with the judgment, but only to the expectation that everyone *will*, notwithstanding the language that he uses in several passages which suggest that his view is the one they reject.[5]

On the other side stand those who eschew such a psychologistic understanding of the ground of judgments of beauty and regard Kant as grounding these judgments on something that would count, for lack of a better word, as "logical." But, as these readers are well aware, he held that concepts or rules (which is what he often identified concepts with) cannot be the basis of the judgments, because that would make the judgments general, rather than singular. By this he meant that the term 'is beautiful' in a judgment of taste would function as a general term which is governed by a rule specifying features that beautiful things have in common. (By call-

ing judgments of taste "singular" he meant at the very least that the term 'is beautiful' in these judgments cannot function in this way.) But what could serve as a "logical" ground of judgments of beauty, once rules are excluded as candidates?

Kant spoke of a judgment of taste as possessing what he called "exemplary necessity."[6] Hannah Ginsborg, in a thought-provoking series of articles, cashes this out in terms of what would be required for the acquisition of empirical concepts.[7] As I understand it, her idea, in outline, is this. In order for our experience to give us access to concepts in the first place, it is not enough for it merely to embody psychological regularities, regularities that could be causally explained as the consequence of our interaction with objects, given the psychological laws that govern our cognitive faculties. Since concepts are used in judgments, and a judgment that states that a certain object falls under a concept makes a claim about a property of the object, and not just about how we are as a matter of empirical fact conditioned to respond to the object, our acquisition of a concept cannot be given such a psychological explanation. The mere fact that my experience manifests such a response does not rationally entitle me to judge that the object has a certain property, even one that is causally connected with the response. Thus it is argued that our experience must from the start be constituted by a norm: we must treat what is given through it, for example, the differential responsiveness to objects that it embodies, as exemplary of a norm of how the experience "ought" to be. In other words in order for a responsiveness to an object to give us access to a property of the object, and hence to a concept of it, we must treat the responsiveness as one that is "appropriate" to the object.

However, the notion of "appropriateness" that is being employed here can strike one as puzzling. This is because the judgment of appropriateness must not make use of a pre-given rule or standard in relation to which the response is to be deemed appropriate or inappropriate. But, it might be asked, without such a standard, how do we attach any content to the awareness of something as appropriate at all? Furthermore, the awareness that a response is appropriate to the object is supposed to give us a standard for future judgments that we make. That is an implication of the idea that the normative awareness is what gives us access to concepts in the first place. But then it would need to determine what would count as conforming to it and what would count as violating it. But how could it do that? What would it be for future acts of judgment to be in conformity with the awareness of a certain response as appropriate to the object? What would the responses on which such future acts of judgment would have to be based have to be like? Is it just that the future responses have to be similar to the original response? Similar, in what respect?[8] How, without already ascribing to the subject an awareness of the response that is mediated by the possession of some other concepts, could the awareness itself contain a specification of the relevant respects of similarity? This would suggest that the bare awareness of an experience as appropriate to an object could not explain how we can move from experience conceived of as unmediated by the possession of concepts to the possession of concepts *überhaupt*.[9]

Kant might be accused of having an overly narrow idea of what it is for a judgment to be guided by concepts. It might be said that we need to distinguish between strong and weak senses in which a judgment can be guided by a grasp of the universal. In the strong sense, someone's judgment is guided by a universal if she is actually guided by a rule in making the judgment that she does. This would normally imply that she is in a position to specify the rule that serves as the standard for her judgment. In the weak sense someone is guided by a grasp of the universal in making the judgments she makes even if her making the judgments she does is not actually guided by a rule, for when she is asked to give the universal which her judgments embody, all that she may be able to do is to give particular judgments that exemplify the universal. Moreover, her incapacity may not be a genuine failure on her part, for example, a failure simply to know the general rule on which her judgments implicitly depend, but rather, her incapacity may be indicative of the nature of the concept in question. So it could be the case that my judgment that something is beautiful while not based on a general rule that states what beautiful things in general have in common, nevertheless, presupposes a universal standard, albeit one that I am able to present only through particular examples of beauty. Such a view about beauty could be compared with what Aristotle said about the person with practical wisdom. For Aristotle the person with practical wisdom has a grasp of the universal that corresponds to right action and choice but this grasp is embodied not in his comprehension of a general rule, but in his capacity to make correct judgments in particular cases. The practically wise person's judgments are perfectly informed by a concept of correct action, and this suggests that we shouldn't have an overly narrow conception of what is required for judgments to be informed by a concept, one that would have to be spelled out in terms of the following of a rule. Why doesn't that solve the problem? As long as we don't have an overly narrow conception of what it is it to be guided by the universal, there is a perfectly good sense in which judgments of beauty, while not based on a formulable rule, are nonetheless based on a concept, one whose unity can be given only by displaying particular examples.

Attractive though such an approach may be as a corrective to an over-intellectualized conception of being guided by a concept in terms of being guided by a rule, it is not clear that it is of much help in understanding the nature of aesthetic judgment. First, while Kant can sometimes sound as if he is interested in explaining how we make judgments of taste, that is not, I think, his primary concern in denying that judgments of taste are based on concepts. Given that he conceives of concepts in terms of rules, that denial may have the implication that we don't make judgments of taste by following a rule. But for him the more important point is that our authority for claiming that a thing is beautiful does not rest on our possessing the concept of beauty. That is, our authority does not rest on our grasp of what beautiful things in general have in common. By contrast even the authority of the practically wise agent rests on his grasp of what a good action in general is, even if the only way that he can genuinely display this understanding is in his judgments regarding particular cases of good action.[10]

There is something right in thinking of aesthetic judgments as in some sense both subjective and objective. Aesthetic judgments both single us out, individualizing us, and also at the same time cannot fail to voice a demand of universal agreement with the judgment. Thus aesthetic judgments carry a necessary dimension of risk that is essential to the kind of authority that they possess.[11] Far from compromising their normativity, the subjectivity of aesthetic judgments must be understood as essential to the sort of normativity that they enjoy, forcing us to distinguish this type of normativity from the sort of normativity that is operative in ordinary cognitive judgments. Yet it is difficult to see how the normativity of these judgments can be combined with their subjectivity. On the one side, there is the threat of losing the normativity of judgments of taste altogether; on the other side, there is the threat of "moralizing" aesthetic judgment, to treat us as if we are under a constraint to find pleasure in certain objects. Both positions are bolstered by the appearance that the opposing position is untenable. The moralizers are encouraged in their view by the need to distinguish between judgments of taste and judgments of the agreeable, a distinction that the psychologizers seem incapable of doing justice to. The psychologizers take heart from the difficulty of spelling out the intelligibility of the notion of a normative constraint where no rules can be in place.

My aim in this paper is to see if there is a way to dismount this see-saw. In the first part of the paper I will examine more closely the tension between the subjectivity and the normativity of judgments of taste. I will suggest reasons for being suspicious of the attempt to model the normativity of judgments of taste on the normativity of cognitive judgments, despite some passages in Kant that seem clearly to indicate that that is exactly what he is doing. I will then offer, all too briefly, an interpretation of Kant's resolution of this tension in terms of his notion of the harmony of the imagination and the understanding in their free play. Here I will argue that it is possible to avoid a psychologistic rendering of the harmony of the faculties, if we understand that notion against the background of Kant's extension of the fabled Copernican Turn to the field of aesthetics. In this section I make two main claims. First, I offer an interpretation of the normativity of the feeling of pleasure in a judgment of taste that qualifies the idea that we are constrained to feel pleasure, without thereby losing the normativity of the feeling. Here I attempt to spell out the difference between the (subjective) normativity of pleasure or attraction and the (objective) normativity of constraint. Second, I make some suggestions as to how to understand Kant's view of the relation between the distinctively aesthetic feeling of pleasure and the power of judgment in general. I claim that the aesthetic feeling of pleasure provides the ground for a properly non-predictive, or non-evidentiary, relation to the world as a whole and to other cognitive subjects, and that it provides the link between the two. In other words by virtue of allowing one to think of oneself as part of a community of cognitive subjects engaged in shared inquiry about the world, aesthetic feeling allows one to think of the world itself as mine (or ours) to judge, and vice versa. Thus aesthetic feeling shows that it is only by thinking of myself as part of a community of inquirers that I can think of the world as I need to in order to bring it to judgment, and it is only by thinking of the

world as I need to in order to bring it to judgment, that I can think of myself as belonging to a community of inquirers. Aesthetic feeling thus provides the ground for the satisfaction of deep transcendental needs that are rooted in our nature as finite and cognitively vulnerable creatures.

I. THE COGNITIVITY AND OBJECTIVITY OF JUDGMENTS OF BEAUTY

Kant puts the problem of the normativity of aesthetic judgments as follows: "the problem can also be represented thus: How is a judgment possible which, merely from one's own feeling of pleasure in an object, independent of its concept, judges this pleasure, as attached to the representation of the same object in every other subject, a priori, i.e., without having to wait for the assent of others?"[12] Normativity is often connected with cognitivity and objectivity. So we can begin by asking, are aesthetic judgments for Kant cognitive? Are they objective? We can distinguish narrow and broad senses in which a judgment can be cognitive.[13] In one sense a judgment is cognitive if it makes a truth claim, where that requires understanding the composition of representations in the judgment as governed by the aim of conforming our representations with how the world is. In a broader sense a judgment counts as "cognitive" just in case it engages the faculties whose cooperation is needed to achieve a successful cognition. As Kant conceives of it, any successful cognition is, at least on the subjective side, the product of the cooperation of several distinct cognitive faculties, the faculties of sensibility, imagination, understanding, and reason. Kant, as we will see, held that judgments of taste are cognitive in the broader, if not in the narrower, sense.

The question whether aesthetic value is objective can also be framed in two ways. In one sense an aesthetic judgment is objective if it represents genuine, mind-independent properties of an object. Kant clearly denies that aesthetic judgments are objective in that sense. But another way of asking about the objectivity of aesthetic value is to ask whether in ascribing aesthetic value to an object, as when we say that a thing is beautiful, we are beholden to a standard that requires us to defend the claim beyond what we would be committed to were we to express a mere liking for the object, as we do in those judgments concerning what Kant calls "the agreeable." For him judgments that attribute beauty to an object qualify as "objective" in this broader sense. As he puts it,

> With regard to the agreeable, everyone is content that his judgment, which he grounds on a private feeling, and in which he says of an object that it pleases him, be restricted merely to his own person. Hence he is perfectly happy if, when he says that sparkling wine from the Canaries is agreeable, someone else should improve his expression and remind him that he should say "It is agreeable to me"; . . . With the beautiful it is entirely different. It would be ridiculous if (the precise converse)

> someone who prided himself on his taste thought to justify himself thus: "This object (the building we are looking at, the clothing someone is wearing, the poem that is presented for judging) is beautiful for me." For he must not call it beautiful if it pleases merely him. Many things may have charm and agreeableness for him, no one will be bothered about that; but if he pronounces that something is beautiful, then he expects the very same satisfaction of others: he judges not merely for himself, but for everyone, and speaks of beauty as if it were a property of things. Hence he says that the *thing* is beautiful, and does not count on the agreement of others with his judgment of satisfaction because he has frequently found them to be agreeable with his own, but rather *demands* it from them. He rebukes them if they judge otherwise, and denies that they have taste, though he nevertheless requires that they ought to have it; and to this extent one cannot say, "Everyone has his special taste." (§7, 5:212–13)

For Kant the question of the normativity of judgments of taste is precisely the question how it can be that in making these judgments I must, as a matter of logic, shoulder the burden of *demanding* universal agreement with my judgment. He felt this as a particularly pressing and difficult question because of features of the judgment of taste that appear to align it closely with the expressions of one's mere liking for an object that he called "judgments of the agreeable." Kant registered this alignment between the values of beauty and the agreeable by observing that the grounding of judgments of beauty possess two notable features that distinguish them from ordinary theoretical cognitive judgments. First, they are, in his words, "autonomous." What he meant by this is expressed in the following passage:

> Hence a young poet does not let himself be dissuaded from his conviction that his poem is beautiful by the judgment of the public nor that of his friends, and, if he does give them a hearing, this is not because he now judges it differently, but rather because, even if (at least in his view) the entire public has a false taste, he nevertheless (even against his judgment) finds cause to accommodate himself to the common delusion in his desire for approval. Only later, when his power of judgment has been made more acute by practice, does he depart from his previous judgment of his own free will, just as he does with those of his judgments that rest entirely on reason. Taste makes claim merely to autonomy. To make the judgments of others into the determining ground of one's own would be heteronomy. (§32, 5:282)

The autonomy of judgments of beauty implies that like the value of being agreeable, beauty is a value that is disclosed to us through experience, even a value whose nature it is to be experienced. The subjective or experiential nature of judgments of taste is connected with another well-known claim that Kant makes about aesthetic judgment, the claim that the ground or justification of these judgments is not transferable to others through testimony. This claim does not imply that each of us is the sole authority in regard to deciding whether a thing is beautiful—as we are in the case of whether something is agreeable. Yet, the idea that aesthetic judgments are not transferable through testimony can seem to stand in some tension

with the idea that they make a claim to universal agreement. For it would seem that in order for it to be intelligible for me to take myself to be capable of making aesthetic claims on others, I must recognize the authority that the aesthetic experiences of others have in relation to my own aesthetic evaluations. But if I must recognize the authority of others to make aesthetic judgments, why am I not permitted to take their word on aesthetic matters? The principle that judgments of taste are autonomous thus seems to pull against their supposed universal purport. For Kant a chief desideratum of any adequate account of judgments of taste is to explain how these two features of them can be reconciled with each other.[14]

The second feature that on Kant's view associates judgments of taste with judgments of the agreeable is that judgments of taste are not grounded in proofs, whether empirical or a priori. He expresses this point in another famous passage:

> If someone reads me his poem or takes me to a play that in the end fails to please my taste, then he can adduce Batteaux or Lessing, or even older and more famous critics of taste, and adduce all the rules they established as proofs that his poem is beautiful; certain passages, which are the very ones that displease me, may even agree with rules of beauty (as they have been given there and have been universally recognized): I will stop my ears, listen to no reasons and arguments, and would rather believe that those rules of the critics are false or at least that this is not a case for their application than allow that my judgment should be determined by means of a priori grounds of proof, since it is supposed to be a judgment of taste and not a judgment of reason. (§33, 5:284–85)

We can distinguish a strong and a weak version of the claim that Kant makes in this passage, although Kant himself does not explicitly do this. Now it is obviously not our usual practice to offer proofs for our aesthetic evaluations. So it is hardly controversial that we often, perhaps always, make judgments of taste without relying either on a deductive or an inductive argument for support. The stronger and more interesting claim is that no argument could ever have normative force with regard to a judgment of taste. It is important to make this distinction because it is only the stronger claim that distinguishes judgments of taste from immediate experience-based judgments such as the judgment that a thing is red.[15] In general observational judgments are not reached by inference from experience, but that does not exclude them from the possibility of correction through the use of reasoning. Indeed, some recent philosophers have maintained that the possibility of correcting spontaneously entered observational judgments through the employment of our inferential capacities is a condition of the immediate judgment counting as a judgment at all, as a move in the space of reasons.[16] Given such a criterion for the admission of a mental act into the space of reasons, a judgment of taste as Kant understood it would not seem to qualify for such admission, and so would not in a real sense even count as a judgment at all.

The fact that judgments of taste are in principle insensitive to the force of reasoning and argument appears to diminish what we could call their "objective purport." Someone who makes an immediate observation-based judgment seems to

commit himself to being challenged by the normative force of reasons, but someone who makes a judgment of taste seems to be free of such a commitment. One might wonder how, if that is the case, judgments of taste can have any genuine aspirations to objectivity at all, even the broad sort of objectivity that Kant calls "intersubjective necessary and universal validity." The fact that judgments of taste are not sensitive to the normative force of reason-based judgments suggests that their normative force would have to have a different nature. The question, then, arises whether it is possible to picture a judgment of taste as a move in the space of reasons, if it is in principle invulnerable to being challenged by reason-based judgments. How should we conceive of a space of reasons that could admit aesthetic judgments within it?

II. THE DISTINCTIVE CHARACTER OF AESTHETIC AUTHORITY: THE THREAT OF ISOLATION

We have seen that Kant stresses the subjectivity of aesthetic judgment, even while recognizing their claim to a kind of normativity. Let me explore the supposed subjectivity of these judgments in a bit more detail. For Kant, beauty is a value that is in its nature to be appreciated. By speaking of "appreciation" here I mean to register that beauty is a value that shows up to us through the feeling of pleasure that we experience in relation to an object. And I also mean to imply that for Kant our access to the value is through appreciation, or feeling, rather than through judgment, thought, and reasoning. We are attuned to aesthetic value only in a presentational engagement with the object.[17] But this claim can be understood, again, in a strong and in a weak sense. In one sense saying that judgments of taste are based on the feeling of pleasure doesn't seem to imply that they are distinctively subjective, for such a statement would seem to mark a role for experience that is a feature of empirical cognitive judgments as well. Suppose I make the empirical judgment that the house is yellow and that I do so because I see the house as yellow, not just, say, because someone told me that the house is yellow. My making the judgment thus rests on a presentational engagement with the object. However, it needn't do so, and this is where the difference with judgments of taste begins to emerge.

Ordinary empirical judgments about an object are merely recognitional in their nature: they involve the recognition that the object has a certain property or a relation to other objects. Thus in the case of ordinary empirical judgments there is nothing logically untoward if someone makes one of these judgments without basing it on her own presentational engagement with the relevant object. However, in an aesthetic judgment the predication of aesthetic value to an object logically demands that one appreciate that the object has that value: it requires that one see aesthetic value *in* the body of features that belong to an object's presentation. The point here isn't that aesthetic predicates have content only if it is possible for them

to be embodied in presentational engagements with objects, for the same can be said for a wide range of concepts, for example, concepts of what have traditionally been regarded as the secondary qualities. The point is not about the conditions of the meaning or content of aesthetic predicates. Rather it is a point about the conditions of meaningfully or genuinely making an aesthetic claim or aesthetic judgment. As I understand him, Kant aims to give insight into the concept of beauty, not by analyzing the concept, but by considering what is distinctive about *claiming* beauty.

The subjectivity of judgments of taste has to do then not just with the idea that they are based on experience but on the idea that experience has a constitutive relation with the act of making the judgment.[18] Aesthetic judgment should be understood as giving expression to the experience, as illustrated by judgments like 'that's funny' or 'that's disgusting'. Such judgments both express a state that you are in and make claims about an object. If you didn't in fact experience a scene as funny, you wouldn't be in a position to say of it that it is funny. It doesn't, of course, follow that when you say that the scene is funny, all that you are saying is that you experience it as such. Judgments that are expressive needn't be about, or merely report on, your experience.[19]

But there is a deeper sense in which aesthetic judgments are subjective, which has to do with their authority being such that there is a standing threat of isolation and incommunicability. One way of putting a difference between empirical cognitive judgments and judgments of taste is this. Empirical cognitive judgment is concerned with the use of our subjective experience of an object to build up a representation of the object as it is independently of the way in which it is given to us in our subjective experience. In a cognitive judgment the point of view of my particular experience is something that the activity of judgment aims to leave behind in favor of a point of view on the world that is essentially shared, essentially public. But in an aesthetic judgment I strive to incorporate my own experience into a judgment with universal aspirations and to do so in such a way that I do not leave my own experience behind. In his essay "Aesthetic Problems of Modern Philosophy," Stanley Cavell expresses this point as follows:

> We must also say, what I take Kant to have seen, that even if agreement were in fact to emerge, our judgments, so far as aesthetic, would remain essentially subjective, in his sense, as they ever were. Otherwise, art and the criticism of art would not have their special importance nor elicit their own forms of distrust and gratitude. The problem of the critic, as of the artist, is not to discount his subjectivity, but to include it; not to overcome it in agreement, but to master it in exemplary ways. Then his work outlasts the fashions and arguments of a particular age. That is the beauty of it.[20]

Cavell isn't saying here that the aesthetic judge happens to feel pleasure before the object, and then claims through a kind of monstrous arrogation of "the universal voice" that you should feel pleasure as well. For him the point of aesthetic judg-

ment is to express the grounds on which we can share a world, and to test the extent to which the world is a world we share, the extent to which it is *our* world. Since the pleasure that serves as the basis of an aesthetic judgment presents itself as universally communicable, as the basis for our inhabiting one and the same world together, the only way in which it is appropriate for me to express this pleasure is through making a claim on you to share it with me. But there is an important element of passivity in an aesthetic judgment as well: I cannot intelligibly command you to agree with me, to share with me my world. And yet although I cannot command you, in the sense of issue you a law, I can aim to attract you. In an aesthetic judgment the expression of attraction is itself something that is issued as an appeal to reason.

I stand in a relation to my aesthetic experience that is different from the one I stand in with regard to an ordinary experience with objective purport. In the case of my experiencing something as red, I can either report on my having that experience or I can report on what that experience tells me about an object. But I can't treat the aesthetic experience either as simply telling me something about the object, or as something I merely happen to undergo.[21] These judgments appear to tell us something about the object but do so by giving expression to our experience, to our feeling of pleasure. And conversely, they seem to give expression to our experience by appearing to tell us about the object.[22]

How are we to understand the peculiar authority of aesthetic judgments, an authority that is everyone's and no one's in particular? It may be possible to detect a tone of anxiousness hovering over Kant's characterization of judgments of taste as "demanding" agreement, given that aesthetic claims must forego backing in all the usual sorts of support that are mobilized in a cognitive judgment. This anxiousness would be connected with our sense that it is not possible to dismiss those who do not agree with us simply as having made a mistake, or as having missed a fact, as in the case of a cognitive disagreement. Thus when we encounter someone who says that something is beautiful, and we disagree with her, we cannot dismiss the person as simply giving expression to how she happens to feel about the object, even if, as a matter of fact, the only thing that she is in a position to offer as grounds for her claim is how she in fact feels. The nature of a judgment of taste precludes the possibility that her claim function as the basis of my agreement with her, but that doesn't mean that her judgment doesn't make a claim on me.[23] I am, you could say, left free with respect to her claim, but I must, nevertheless, treat her as having made a claim, as though she had reported a fact about the world, rather than merely registered her own subjective response to it. This is, you could say, a collorary of Kant's remark that it would be ridiculous for someone to say that an object is beautiful "for me." That is, if someone says that something is beautiful, I cannot, without failing to understand the speech act that she just made, treat her as merely having given voice to her own mental state. Of course, it may be that that is all she did, but that possibility does not of itself cast doubt on her ability to make a claim on me, anymore than the mere fact that I may be giving voice only to the manner in which an object appears to me casts doubt on my ability to render a claim about

how the object actually is. Indeed, judgments of taste are possible only because we are so constituted that we can voice claims on each other that, in one sense, merely express how we feel or experience something. Thus the stakes of aesthetic disagreement are different from the stakes of disagreement in fact. Aesthetic judgments claim that everyone ought to feel pleasure with regard to an object even though my own feeling of pleasure is the sole basis of that claim. Thus it is an essential feature of judgments of taste that they run the risk of isolation and individuation that ordinary cognitive judgments, whether about the world or about one's own psychological states, do not run. Since the key to making one's aesthetic judgment lies in one's own feeling of pleasure, there may be no way to make one's aesthetic judgment communicable to others, or perhaps to oneself.

Cavell compares aesthetic judgments with the judgments that one finds in ordinary language philosophy, for both display a peculiar combination of normativity and powerlessness: "The philosopher appealing to everyday language turns to the reader not to convince him without proof but to get him to prove something, test something, against himself. He is saying: Look and find out whether you can see what I see, wish to say what I wish to say. Of course he often seems to answer or beg his own question by posing it in plural form: 'We say . . . ; We want to say . . . ; We can imagine . . . ; The idea now absorbs us . . . ; We are dissatisfied . . . ;' But this plural is still the first person: it does not, to use Kant's word, 'postulate' that 'we,' you and I and he, say and want and imagine and feel and suffer together. If we do not, then the philosopher's remarks are irrelevant to us. Of course he doesn't think they are irrelevant, but the implication is that philosophy, like art, is, and should be, powerless to prove its relevance; and that says something about the kind of relevance it wishes to have. All the philosopher, this kind of philosopher, can do is to express, as fully as he can, his world, and attract our undivided attention to our own."[24]

For Cavell in order for there to be room for both aesthetic judgment and the judgments of ordinary language philosophers, there must be judgments that neither simply report a fact about the extra-mental world nor merely express, or report, a psychological fact. There must be judgments that in one sense merely express one's own state of mind, but nevertheless do so through the arrogation of a "universal voice." Cavell is concerned to bring out the difference in shape between agreement and disagreement in aesthetic and philosophical matters (at least those that are the concern of ordinary language philosophy) on the one hand and ordinary cognitive matters on the other. For a start, we can note that the kind of authority that is appropriate to the judgments of the ordinary language philosopher and judgments of taste can be distinguished from the authority of an important species of cognitive judgment; namely, judgments whose authority is based on training, expertise, or learning, judgments with respect to which it can make sense to request authorizing credentials, thus judgments which one person can be in a better position to make than another. In both aesthetic judgment and the judgments of ordinary language philosophy, the existence of disagreement is not just a regrettable circum-

stance that can be corrected through patient explanation, training, argument, or other forms of brow-beating, but rather, disagreement in both cases seems to put pressure on the very possibility of judgment as such, on the very authority we possess to render judgment on the world, hence on what Kant calls our "power of judgment." In both cases, it seems to be essential that we somehow arrogate the authority to make the judgment even though our authoritativeness cannot rest on expertise, learning, training, testimony, evidence, and the like—in short, it seems that our authority in rendering such judgments cannot be based on knowledge, on something that is transmissible through testimony.

A related point is that in both the aesthetic and the ordinary our failure to reach agreement often cannot always be accounted for in terms of there being something hidden from us, either in the sense in which the answer to a mathematical problem may be obscured by the need to reason out the answer, or in the sense in which the visual perspective that we have on an object reveals certain features or aspects and obscures others. Sometimes the beauty of the object is not hidden from view—it is just there, there in plain sight. We don't need to think things through further or to occupy a better vantage point. However, beauty is not a property that is simply available to sensory apprehension, like the property of being green, or square, and so our failure to see that the object is beautiful cannot be written off to a defect in our sensory faculties, such as poor sight, or color-blindness.

We might compare this with the phenomena that Wittgenstein discussed under the rubric of "seeing aspects."[25] Being aware of the duck-rabbit as a rabbit isn't like being aware of the apple as red. Rabbit-shapedness isn't just an objective feature of the duck-rabbit figure in the way that redness is an objective feature of the apple. When you say that now you see the figure as a rabbit, you are describing your experience of it. You aren't taking yourself to describe a fact about the figure. Nonetheless, the experience that you are having is inseparable from the object itself, for you are experiencing the **figure** as a rabbit. There is some sense in which your experience is grounded in the object, even though you aren't just describing a fact about it. It can be said, then, that your experience is guided by the object; it is appropriate to the object. It isn't just caused by the object. Thus when you say, "now I see it as a rabbit," you aren't just expressing a fact about yourself. But you also aren't just expressing a fact about the figure either. Thus subjective and objective seem to be irreducibly intertwined with each other. In some sense rabbitness is there to be seen: if you don't see it, you have missed something, but what you have missed is merely a way of seeing it, not an objective fact about the figure. The object guides your experience of it, yet what you experience isn't just a property that the object possesses. What the object leads you to is a way of experiencing it, where the way we experience something in the relevant sense seems not to be in the province either of objective fact or of empirical psychology.

Putting this together with Cavell's remarks, we get the idea that the point of aesthetic judgments, like the judgments of ordinary language philosophy, is to test the extent to which the world is a shared world, the extent to which the world is,

you might say, our world. That our world is a shared world is not itself a piece of information about the world, but neither is it just a matter of our sharing subjective responses to the world. Rather, it is a matter of what we do and what we don't register as necessary, the unities that we treat as requiring a concept and those that we treat as merely the product of psychological forces working within us. It is a matter of our doing something, not just our undergoing something, or even our being conscious of something, or cognizing something. An important difference then between cognitive judgments and aesthetic judgments is that whereas the former merely give us information about objects, the latter have to do with the possibility of experiencing an object in a certain way, in a way that is intrinsically pleasurable. But aesthetic judgments, unlike some judgments of the agreeable, don't just point to a source of intrinsic pleasure, even one that we can expect others to share with us. Rather, they give expression to the claim that the object makes on us to bring it to judgment, to make sense of it, and so to bring the world as a whole to judgment. And it does this by engaging through the free play of the imagination the faculty of making sense, the faculty through the activity of which our experience is able to present something that can have a rational impact on our thinking, on the faculty of judgment.

III. THE DISTINCTIVE CHARACTER OF AESTHETIC AUTHORITY: THE THREAT OF AESTHETIC DISAPPOINTMENT

A measure of the objectivity of aesthetic judgments is registered by the fact that there doesn't seem to be anything logically amiss in the situation of someone who claims that a thing is beautiful and yet doesn't find it pleasing, as there would be if someone said "this is agreeable, but I don't find it pleasing." This is illustrated by Coleridge's poem "Dejection: An Ode": "Those stars, that glide behind them or between / How sparkling, now bedimmed, but always seen: / Yon crescent Moon, as fixed as if it grew / In its own cloudless, starless lake of blue; / I see them all so excellently fair, / I see, not feel, how beautiful they are!"[26] We can take Coleridge to bemoan not just the fact that the scene he witnesses no longer gives him pleasure, a loss which is a common enough experience even in cases of the agreeable. What troubles him is not that the objects in the scene fail him but that it is he who fails to meet the demand for response that is set by his calling them "beautiful." The crescent moon in its starless lake of blue is no less gloriously beautiful than before, about that there is no doubt in his mind, but he is no longer up to receiving the moon in a manner that befits it.

We might compare Coleridge's situation to cases of cognitive *akrasia*, as in a case in which someone, in some sense, recognizes that he ought to believe that the plane is about to take off any minute (perhaps the captain has just said so over the intercom), but his fear of flying prevents him from actually believing something

that reason tells him he ought to believe. Such cases may be hard to countenance. Perhaps the most natural way of describing the case is to say that the person does believe that the plane is about to take off, even though he is desperately trying tell himself that it isn't. But were such cases possible, they would bespeak a division within oneself that would attest not just to a local and isolated failure of thought, such as making a mistake in reasoning, but a global and systematic breakdown in one's capacity as a rational being, a breakdown that cannot be fixed by reasoning with the person. Both the case of cognitive *akrasia* and the case of, just to give it a name, aesthetic *akrasia*, have in common that in the event that it occurs, reason can gain no foothold. The sorry victim of cognitive *akrasia* doesn't need reasons for believing that the plane is about to take off. He has all the reasons he needs. What he needs, and what his phobia desperately doesn't want, is for the reasons that he has to be effective in the formation of belief. But if Kant is right, that cannot be Coleridge's situation, for the judgment that something is beautiful is not one that can be based on reason.

Nothing is more commonplace than the observation that we are in situations all the time in which judgment says one thing and experience at least seems to say another. The stick is straight, but it looks bent. The room is warm, but it feels cold. The sun is large, but it looks small. The difference between these cases and the aesthetic case is that in the cognitive cases the function of experience is to give us purported information on which to base our judgment. If the information that it purports to give is determined by us to be false, then our attitude is: so much the worse for the experience that delivered it. Once we have reached what we take to be a correct judgment on the matter, there is no further demand to make our experience cohere with the judgment. Yet, this is what there precisely seems to be in the aesthetic case. In the cognitive case the experience, you might say, is used up in the judgment to which it gives rise, whereas in the aesthetic case the upshot of judging that an object is beautiful is to say that you must experience it in a certain way. So while it is not strictly speaking logically amiss for someone to say "this is beautiful but I don't feel any pleasure from it," there is a failure of a kind, a failure to measure up in some way to the judgment. Perhaps Coleridge's case is close enough to the case of the *akratic* cognizer that we can speak of it in terms of a kind of self-unintelligibility that is akin to Moore's paradox, to the state of someone who says "it's raining, but I don't believe that it is."[27]

Coleridge's disappointment has to do with failing to appreciate something that he recognizes that he ought to.[28] Furthermore, he experiences this disappointment as a kind of self-disappointment: it isn't just that his sensory faculties have let him down; he feels that he has let himself down. This self-disappointment with regard to one's appreciative capacity seems not to be explicable merely as a practical failure, for example, as Coleridge's failure to live up to his intense personal commitment to an aesthetic vocation, for it seems to be a possibility that is built into the very concept of aesthetic value itself. This marks another significant difference between aesthetic judgments and cognitive judgments. If, in a cognitive situation,

we fail to experience the world in the manner in which we judge that we ought to experience it, we blame the non-optimality of our sensory faculties or our circumstances, not ourselves. If Coleridge's failure were of this sort, it would be like those common cases in which something that I found tasty in my early youth now leaves me, to my chagrin, indifferent. The difference between a disappointment of this kind and one that I am claiming involves a sort of self-disappointment is not just a matter of the intensity of the accompanying feeling. For in the first kind of case what is lost is just a source of pleasure, whether it be intense or mild. But in the second sort of case, in which I recognize that a thing is beautiful, but no longer feel it to be so, there is a further element of disappointment entirely lacking in the first. This disappointment can be expressed by saying that I have failed to live up to a standard of response to which I have committed myself in judging that the object is beautiful. And in failing to meet this standard, I have, in a sense, failed the object: I have failed to respond to the object in the manner that it deserves, or merits.

IV. THE HARMONY OF THE FACULTIES

Of course, as already mentioned, Kant aimed to explain the normativity of judgments of taste in terms of what he called the harmony of the faculties. How well does his account of this normativity do justice to and illuminate some of the special features of aesthetic judgments that I have, with his help, tried to articulate? As we earlier distinguished two notions of cognitivity, we can begin here by distinguishing two notions of receptivity. Understood in a narrow sense receptivity is bare receptivity: it is the faculty of sensibility considered in abstraction from the other cognitive faculties. As such, receptivity is capable of delivering up only sensory qualities, qualities that are the products of our susceptibility to be affected by objects in certain ways.[29] Understood in a broad sense receptivity encompasses all of those qualities whose *esse* is to be appreciated, as in the case of aesthetic value and the experienced features of an object that embody such value. Receptivity in a broad sense is *not* confined to the deliverances of bare receptivity, for our capacity to appreciate those qualities whose *esse* is to be appreciated may include faculties other than that of our sensibility.

Perhaps this can help us to see how it is that Coleridge can be disappointed with himself for failing to respond suitably or aptly to the moon and the stars. Armed with this distinction Kant could explain the intelligibility of Coleridge's disappointment in terms of an imaginative reception of the object that draws in the mutually animating engagement of all of one's cognitive faculties—the faculties of sensibility, imagination, and understanding—in one's experience of the thing, generating a state that he calls "the subjective condition of cognition in general." In appreciating the object as subjects with the power of judgment and not just as subjects with the power of receptivity in the narrow sense, we are obliged to treat our

appreciation of the object as one that is apt to the object, for the object conditions the pleasurable interanimating engagement of our cognitive faculties with each other.[30] Kant writes,

> The animation of both faculties (the imagination and the understanding) to an activity that is indeterminate but yet through the stimulus of the given representation, in unison, namely that which belongs to a cognition in general, is the sensation whose universal communicability is postulated by the judgment of taste. Of course, an objective relation can only be thought, but insofar as it is subjective as far as its conditions are concerned it can still be sensed in its effect on the mind; and further, in the case of a relation that is not grounded in any concept, no other consciousness of it is possible except through sensation of the effect that consists in the facilitated play of both powers of the mind (imagination and understanding), enlivened through mutual agreement. A representation which, though singular and without comparison to others, nevertheless is in agreement with the conditions of universality, an agreement that constitutes the business of the understanding in general, bring the faculties of cognition into the well-proportioned disposition that we require for all cognition and hence also regard as valid for everyone (for every human being) who is determined to judge by means of understanding and sense in combination.[31]

Kant's basic idea for explaining the universality of the feeling of pleasure in a judgment of taste is that the pleasure is the result of the mutually stimulating play between the imagination and the understanding, the faculties whose interrelation is a necessary condition of human cognition of an object in general. Kant argues that since everyone is capable of cognition, it follows that a feeling of pleasure that has such a source must be capable of universal imputation. There are many questions that one can pose to this sort of account.

But I would like to start by discussing a natural and simple objection, most sharply formulated by Paul Guyer, for I think that seeing how Kant would have responded to it helps to bring out important features of his account.[32] Here's the objection: while it may be true that on the whole everyone must be capable of producing, with regard to an object, a mutually stimulating and harmonious interaction between their faculties of imagination and understanding in their free play, it does not follow that everyone is able to produce the harmony of the faculties with respect to all the same objects. After all, the capacity to apprehend unity in the arrangement of elements in our imagination may be variously distributed, whether because of native psychological differences, or because of variations in the cultivation of individuals' powers of judgment and imagination.

There has been much discussion on the question of how to understand how Kant viewed the nature of our universal imputation of pleasure, in particular whether we should understand the imputation as predictive in nature, expressing an expectation that others will agree, or as imperatival in nature, expressing the demand that everyone should, or ought to, agree.[33] The criticism formulated above assumes that the imputation of the feeling of pleasure to others is a kind of prediction (or

expectation) that others will feel pleasure in relation to the same objects that one does oneself. On the assumption that the imputation is predictive, it is a point well taken that the mere fact that the pleasure has its provenance in a relation between our cognitive faculties that is required for ordinary cognition in general does not ensure the universal imputability of the pleasure. It is certainly possible that different people have different thresholds for the required harmony of their faculties. But, of course, one could say that about any cognitive act: people have different thresholds in their capacity to comprehend the solution to complex problems. Such variation in individual cognitive abilities does not give pause, for example, to the expert mathematician who affirms the solution to a complex mathematical problem: in affirming the solution she demands that everyone ought to believe it.

Now the objector may reply that the mathematics case and the aesthetic case are importantly different, for the mathematician is affirming the truth of a mathematical theorem, and in doing so, she is committed to demanding that everyone believe it. But there is no affirmation of objective truth in the aesthetic case. There is only the fact that the feeling stems from the harmony of the faculties. And so the original point, which was that that is not sufficient grounds for the universal imputation of the pleasure, is still in place.

But Kant could reply to this rejoinder that the point of the parallel between the mathematics and aesthetics cases has been missed. Now the reason that the mathematician feels licensed to demand that others agree with her mathematical judgment is not that she takes herself to be a brilliant mathematician whose cognitive powers are of sufficient strength that the beliefs she forms through the exercise of those powers are bound to be reliable guides to the truth. Rather, her demand that everyone agree with her judgment is constitutive of her act of judgment itself. What you might think of yourself as a reliable indicator of mathematical truth is quite irrelevant to whether you can be in a position to demand that everyone agree with your mathematical judgment: you are in such a position just in case you are in a position to make a judgment about the matter at all.[34] It is therefore incoherent to treat the actions of one's understanding as merely one's own, hence as reliable, or unreliable, guides to the truth. Similarly, although aesthetic judgments do not make a claim to truth, they are grounded in the activity of the understanding. Consequently, it follows that the pleasure that is the result of this activity is universally imputable. Universal imputability here is normative rather than predictive: you demand that others feel pleasure in their response to a certain object, you aren't predicting that they do. The feeling of pleasure is the expression of a cognitive act, not the symptom of a psychological happening. Since the judgment of taste is not a prediction that some psychological process will go on in you, you can't negate my judgment of taste by reporting that no such psychological process has occurred in you. That would be to behave as though I had not made a genuine claim that the object is beautiful.

Now if such a defender of Kant is right that aesthetic judgments are normative in the above sense, then that would be enough to answer Guyer's objection. But Guyer could still ask what grounds Kant has for supposing that aesthetic judgments

are genuinely normative in that sense, since the only backing that Kant seems to give for thinking of aesthetic judgment as normative is that such judgments are based on a delight that is rooted in the harmony of the faculties. So it could be asked how the harmony of the faculties, which seems to be a kind of psychological state, could be the basis for anything but a prediction of the agreement of others, and a not very sure one at that. In order to gain some clarity about this dispute, we will need to look at what Kant calls "the subjective condition" of the power of judgment. He writes,

> The subjective condition of judgment is the faculty of judging itself, or the power of judgment. This, employed with regard to a representation by means of which an object is given, requires the agreement of two powers of representation: namely, the imagination (for the intuition and the composition of the manifold of intuition), and the understanding (for the concept as representation of the unity of this composition). (§35, 5:287)

Let me try to get at what is distinctive about the subjective condition of the power of judgment by comparing it with what we might think of as a subjective condition of a skill, such as the skills of riding a bike, dancing the tango, flying a plane, or playing bridge. Let us take as our example the skill of hitting a baseball. It may be necessary for me to wiggle my bat back and forth as the pitch is coming to me in order to time my swing, but that is peculiar to me and I cannot declare it to be necessary for anyone if he is to have a good chance of making contact with the ball. The timing device that helps a batter hit a baseball functions as a means to hitting the ball. It belongs to the batter's well-honed skill at hitting a baseball, and a skill is a means for achieving some goal. But a cognitive power does not relate to cognition in the way that a skill relates to the achievement of an end. Since a skill is just a way of achieving an end, the end is something that can be specified independently of the skill that is deployed to bring it about. In fact it is conceivable that the end toward which the skill aims be brought about without a specific exercise of the skill at all. It could, for example, come about spontaneously through an act of God. I may be standing in the batter's box, woefully ill-equipped to hit a ninety-mile-per-hour fastball hurtling in my direction, but God or an angel may intervene and place my bat exactly where it needs to be to make solid, glorious contact. But that cannot be the way it is with the relation between our cognitive power and a successful cognition. Our cognitive power isn't just a way of bringing about a cognition, for what it is to cognize something is just for our cognitive power to be realized. If God wanted to give me a cognition, he would have to make it the case that my cognitive power is realized. My cognitive power has the standard for its own success built into it, for it succeeds just in case it is realized in a determinate cognition, and a determinate cognition just is a realization of our cognitive power.[35] It is very much like a capacity that has its own end within it.[36]

This is indeed the way in which Kant conceived of our cognitive power. Just to give one example, the categories are rules that have their source in the cognitive power of our understanding itself, and these serve as the very conditions under

which the cognitive power can be realized in a determinate cognition of an object of experience. The cognitive power sets the conditions under which what it is aiming at, the cognition of an object, can be generated. Thus the cognitive power is self-determining in the sense that the product at which it aims counts as that very product only by virtue of its satisfying the very conditions laid down by the cognitive power itself. My coming, for example, to judge or to believe, or even to experience something, cannot be the result of ordinary efficient causes, as in the case of my coming to hit a baseball or to bake a cake. In the first set of cases the product must be conceived of as generated under the condition of the standards that are imposed on what can count as a genuine judging, or believing, or experiencing of an object. A cognitive power always generates what it does through the imposition of a standard of what can count as the relevant cognition. In this sense a cognitive power has a built-in reflexivity that a skill does not possess. In making a judgment one must take the psychological state that realizes one's power of judgment to be exemplary of how anyone ought to judge.

V. DETERMINING JUDGMENT AND REFLECTING JUDGMENT

It is an important piece in the puzzle that Kant thinks of our cognitive power of judgment as functioning in two irreducibly different, but also mutually complementary, ways. Kant writes,

> The power of judgment in general is the faculty for thinking of the particular as contained under the universal. If the universal (the rule, the principle, the law) is given, then the power of judgment, which subsumes the particular under it (even when, as a transcendental power of judgment, it provides the conditions *a priori* in accordance with which alone anything can be subsumed under that universal), is *determining.* If, however, only the particular is given, for which the universal is to be found, then the power of judgment is merely *reflecting.* (5:179, Intro. IV)

Judgment requires not only the fitting of given particulars to a finite store of available concepts, it also requires the finding of concepts that fit the particulars that are given to us. As a first approximation we can think of the faculty of judgment as dividing its labor in a way that resembles the division of labor in the men's clothing department at Macy's. Those departments are staffed both with people whose task it is to fit the individual patrons who come into the store to the stock of ready-to-wear suits on offer and with people whose task it is to tailor a suit to the specific physical dimensions that those individual patrons present. Think of the first task as corresponding to what Kant called determining judgment and the second to what he called reflecting judgment. In determining judgment, the understanding prescribes through the categories the standards, or conditions, under which anything that is given through our sensibility counts as a possible object of cognition. In this way the understanding is the source of the very conditions under which

it can be actualized in the form of the achievement of specific cognitions of sensory particulars. The power of the understanding is objective in the sense that it is the source of the standards of what can count as an object, or at least can count as a possible object of our knowledge. In a reflecting judgment the power of judgment is not objective in that sense, but like the understanding it lays down a standard that objects must meet in order for us to seek to bring them under higher concepts and laws. Seeking greater unity in our cognitions is an exercise of our cognitive power just as much as forming a determinate judgment or belief is, and as an exercise of our cognitive power it must be constituted by a standard that makes the very activity possible, a standard that must come from the cognitive power of judgment itself. However, since the standard does not make possible the objects of our cognition but only the seeking of greater unity in our knowledge, it is subjective rather than objective. Instead of being applied to the objects of our experience, the standard of judgment is employed "reflectively" to advance the power of judgment itself. The standard of the power of judgment is given through the imagination itself instead of being imposed on the imagination by the understanding.

In a reflecting judgment we seek to fit the particular to this or that concept, and if there is no concept available that makes a good fit, we begin to project the features of the particular into a possible concept. In doing so, we do not operate blindly. We draw on our acquaintance with other concepts, other particulars, and on our experience of the failed and successful attempts to fit them to concepts. We use our imagination to project a possible fit, and we are guided in this projection by our past experience of successful fits. But the projection of a fit between particular and concept is always somewhat tentative and exploratory: it is thus an activity of the imagination rather than one that can be based on reasoning and inference. But when we take ourselves to find a "fit," we subsume the particular under a concept and in doing so enter a determining judgment. Once we have done so, we have taken on the burden of measuring our judgment by the normative force of those judgments that are the products of reasoning.

Now if God wanted to give us a cognition he would have to make sure that it was generated through the action of our power of cognition. This, of course, just means that it is incoherent to suppose that God could create cognition in us just like that, in the way that he would be able to create a chocolate cake just like that without going through the usual steps to which a finite human agent would have to resort. Cognition is necessarily a product of the self-determination of our cognitive power. In particular the object of our cognition would have to be determined by this power, since it would have to conform to the standards that the power set for its realization. Now what determines my ability to use this standard is the feeling of pleasure I have through the mutual stimulation of my imagination and my understanding in their free play. But this means that this feeling of pleasure cannot merely be, or express, a means to a cognition, for the seeking of greater unity in our cognition through the exercise of reflecting judgment can only be generated through that feeling of pleasure itself. The feeling of pleasure isn't just a means of

this activity but a constitutive standard of it: it is, in an important sense, a priori. We are thus aware of the feeling of pleasure before the beautiful as a feeling that is universally communicable, and so are committed to impute it to everyone.

Guyer's objection trades on thinking of the feeling of pleasure that we get from the sense of unity we experience through a free play of the imagination as either a means or as an end that can be realized independently of the meeting of standards laid down by our cognitive faculty itself. But Kant stresses that the feeling of pleasure just is the exhibition of the standard that is presupposed by the power of judgment in its search for greater unity in our cognition. Put in a more straightforward way, the activity of reflecting judgment is self-monitoring, or self-directing, and it is the feeling of pleasure that functions as a guide in the self-monitoring of our capacity to judge.

VI. NORMATIVITY OF ATTRACTION AND NORMATIVITY OF CONSTRAINT

This is not to say that the distinctively aesthetic feeling of pleasure that is based on the harmony of the faculties, on the subjective condition of judgment, is one that we are constrained to have. Although we are licensed to demand that others feel this pleasure, we must, at the same time, be aware that nothing constrains others to feel this pleasure. One might reasonably wonder how this is possible. If judgments of taste are genuinely imperatival, if they demand that everyone enjoy a certain pleasure, how can they not commit you to the idea that everyone is constrained to feel pleasure? But if everyone is constrained, doesn't that mean that there is rule or law that commands it? Some such reasoning may lead one to feel somewhat uncomfortable embracing all the normative talk about demanding, or requiring, that everyone feel pleasure, calling on them, placing a claim on them to feel pleasure. One may feel in danger of "moralizing" aesthetic experience. This point can be put in Kant's terms by stressing that the pleasure with which we take in a beautiful thing must be free, and that precisely means that we cannot be constrained to take pleasure in it. But, now expressing the converse of our earlier point, if we can't be constrained, then what sense does it make to speak of demanding or requiring that others feel pleasure? I don't think that Kant is incoherent here. The mental activity that gives rise to pleasure in the beautiful is itself one that is unconstrained by a determinate rule of the understanding. In that sense the feeling of pleasure is free or unconstrained, but since the play of the imagination enlivens the understanding, the pleasure is felt as called for by the object in question. Thus, although we are not constrained to feel pleasure, the pleasure is universally imputable, as if we were constrained to feel it, hence the appropriateness of speaking of the pleasure as one that everyone ought to feel.

We can distinguish here between a normativity of attraction or appeal as opposed to a normativity of constraint. Let me explain. The understanding con-

strains by laying down a condition that all objects must meet if they are to count as an object of cognition at all. But the capacity of judgment furthers or advances, lays the ground for, and guides the task of making the world more intelligible, of bringing our representations of the world into greater unity and systematicity. It is through a feeling of pleasure that we are made aware of the meeting of the conditions for furthering and guiding our minds toward greater unity, and this leads us to express our pleasure in the form of claims and demands. But these claims and demands are unenforceable, for the pleasure does not express an objective constraint, a law that our experience must meet if it is to give us a world of knowable objects but rather a unity that *we need* the world to meet, a subjective necessity, although an a priori necessity all the same. Just as the understanding enforces certain objective necessities by imposing certain objective conditions, so the faculty of judgment is guided by the satisfaction of certain subjective necessities, necessities that have their root in our transcendental needs as finite and vulnerable cognitive subjects. It is appropriate therefore that the pleasures through which we become aware of the meeting of our subjective necessities be given expression through demands and claims for universal agreement, but it is just as crucial to the kind of normativity that this feeling of pleasure has that the demand is one that cannot itself be enforced through the giving of a ground. For the pleasure constitutes not a constraint but a guide for seeking greater unity and systematicity in our cognition. You cannot be rationally compelled to be guided in your inquiry, but that doesn't mean that the guide cannot make an appeal to your reason. In demanding that others feel pleasure in relation to an object, we aren't laying down the law, as we do when we claim that others treat us as an end in itself and never as a means, or when we demand that others agree with a cognitive claim of ours about some matter of fact. Rather we are giving expression to the rational claim that a guide to our cognitive endeavors makes on us. This is a rational demand that has its source not in the pure spontaneity of our power of understanding, as the categories do, but in our nature as needy and vulnerable cognitive subjects. It's not that the demand is "softer," but that it is rooted in our nature as rational animals (and so subjective) as opposed to being rooted in pure understanding or pure reason (and so objective).[37]

We still need to consider one further objection. You might wonder how the feeling of pleasure can possess any normativity at all if it is rooted in our needs as vulnerable cognitive subjects, even if the needs are a priori and not just empirical. Let us suppose that the feeling of pleasure in an aesthetic judgment does signify the meeting of such a need, the finding of sufficient unity in the activity of our imagination. But since this need is not the source of an objective constraint, why wouldn't the meeting of the need itself be empirical, even if the need itself is a priori? In other words why isn't it just a fortunate contingency that the world is so formed that our imagination can receive it in such a way that our need for unity is met? If so, wouldn't our satisfaction in the meeting of this need be very much like the satisfaction of the agreeable, with the sole difference being that satisfaction in the agreeable is rooted in an empirical need or desire and satisfaction in the beautiful

is rooted in a transcendental need or aim? The best that we could offer would be to report that given our transcendental needs as vulnerable cognitive subjects, a certain object is a reliable source of pleasure.

This objection misses an important feature in Kant's account of the active role of our power of cognition in generating the possibility of cognition. Even though our power of judgment does not impose objective conditions, it is, like the spontaneity of the understanding, self-determining, or rather since reflecting judgment doesn't "determine," it is self-directing, or self-orienting.[38] Our power of judgment is not constrained by nature. Rather it constrains nature to disclose itself, to yield itself as a space of possible cognitions, a space of knowable laws and concepts. It is only on the ground of projecting a shared and knowable world that it is possible to realize a shared and knowable world. The possibility of a shared and knowable world is not something for which we can find empirical evidence. I do not have evidence that you are a cognitive subject who shares with me a sense of what counts as unified and what counts as a mere aggregate. And I do not have evidence that the world is with regard to its specific laws and forms of organization knowable. As in other areas of his thought, Kant is tipping his cap to the skeptic here.[39] Whereas this realization leads the skeptic to doubt the possibility of ever sharing a world, except in a purely empirical sense, with other cognitive subjects, and the possibility of knowing the world with regard to its particular forms of law-like organization, except in the purely empirical sense of knowing its contingent regularities, it leads Kant to challenge the assumption that my relation to the world and to others rests on evidence or takes a predictive form. My sharing a world with others is not based on my having grounds for predicting that their reactions to it will be like my own, and my inhabiting a knowable world does not rest on my having grounds for predicting that it is adapted to my cognitive needs. And in any case, if the basis of my convictions in a shared and knowable world were predictive, the skeptic would be right to doubt their very possibility. The threat of such skepticism is to be removed not by looking for evidence that supports these possibilities but by discarding the idea that our conviction in them has its proper ground in empirical evidence.

Like our power of understanding, our power of judgment is not in the thrall of nature, or of the experience that delivers it to us. It is in Kant's terms a self-determining, or self-directing, power. As such it is the business of the power of judgment to project ahead of itself the terms under which nature can offer itself to me as knowable, rather than to wait for empirical evidence of its knowability. This projection is not under the constraint of nature, but rather constrains nature to yield its laws to us. The feeling of pleasure is experienced as necessary if we are aware of it as the ground of such a projection. As such it is an expression of the self-direction of our cognitive power, and not a mere effect of nature on us, as would be the feeling of pleasure in the agreeable.

The distinctively aesthetic feeling of pleasure plays two important roles: it brings nature closer to us and it brings us closer to other cognitive inquirers. We are individual subjects thrown into a world and into society. How do we make the

world our own and constitute a society of cognitive inquirers? We must assume that the world is ours to judge and we must assume that we can pass judgments on the world together as members of a community of inquirers. But we have no conceptual or evidentiary ground for such an assumption. The transcendental analytic of the first *Critique* argued that all of our judgments and experiences must conform to the mandates of the pure concepts of the understanding. But this leaves open the question whether particular objects can be brought through empirical concepts to the unity that is required by the pure concepts of the understanding. This requires that there be sufficient unity in nature with respect to the possibility of subsuming its phenomena under ever-higher empirical laws, and there is no a priori guarantee that there is such unity in nature. Kant writes, "Yet that the order of nature in its particular laws, although its multiplicity and diversity at least possibly surpass all our power of comprehension, is yet fitted to it, is, as far as we can see, contingent; and its discovery is a task for the understanding, which is aimed at an end that is necessary for it, namely to introduce into it unity of principles—which purpose must be attributed to nature by the power of judgment, because the understanding cannot prescribe to it any law on this matter."[40] It is the task of the reflecting power of judgment to seek to bring appearances under higher concepts and more comprehensive laws. While reflecting judgment has no right to claim that nature actually is organized according to laws that we can comprehend, it does have the right at least to suppose nature as to be so organized, for otherwise there would be no way in which it could orient the activity of seeking concepts and laws that it is by its nature enjoined to seek. Without supposing nature to be organized for the sake of our cognitive faculty, "we would have no order of nature in accordance with empirical laws, hence no guideline for an experience of this in all its multiplicity and for research into it."[41] We are licensed, therefore, to picture nature as if it were designed so that its laws are comprehensible to us. The idea that nature is purposive without purpose for our cognitive faculties is an indeterminate a priori concept: there are neither empirical nor a priori conditions of its application.

Aesthetic pleasure confirms the picture of nature with which reflective judgment must operate, for it provides a ground for at least picturing nature in the way that reflecting judgment must. The beautiful object enables us to look at the world in a certain way, in a way that supports the need of judgment. It isn't that the beautiful object satisfies a cognitive aim or need, thus giving us pleasure. It is that it gives us a pleasure that we are aware of as having its ground in the harmony of the faculties. And by having a pleasure of this kind we are encouraged to look at the world as if it were designed for our cognitive faculties.

The distinctively aesthetic feeling of pleasure gives us a ground for employing a certain conception of our relation to the world and to other cognitive subjects for which we would otherwise have no grounding at all, but for which we have a kind of transcendental need. The idea that the world accommodates itself to our cognitive faculties is an idea under which we must think of the world insofar as we aim to bring the phenomena of nature under concepts, but there can be no insight into

the possibility that the world is indeed accommodated to us.[42] The transcendental need here is not a need for cognition or a need for the satisfaction of our cognitive aims, rather it has to do with how we must think of our relation to the world in order to undertake the aim of cognition. Thus it is precisely not a need that can be satisfied by the achievement of cognition. The aim of cognition is never fully satisfied, and in any case the achievement of successful cognition does not give us any ground for assuming that further unity, beyond what has already been attained, can be introduced into our experience. But our need to picture the world as *ours* to bring to judgment is something that can be fully satisfied.[43]

VII. THE COPERNICAN TURN IN AESTHETICS

Kant's account of the universal communicability of the feeling of pleasure in an aesthetic judgment depends on an extension of the Copernican Turn to the sphere of aesthetics. In the first *Critique* Kant presents the faculty of the understanding as the source of objectivity. On his view objects are not given to us but are rather constituted by means of the understanding's demand that objects be given to it that conform to its laws. The understanding is the source of the objective world not in the sense that it is the source of its matter but in the sense that it is the source of the laws to which anything must conform if it is to count as objective. Now the understanding cannot give content to its laws, nor enforce them on what Kant calls appearances, the objects that are given to us through our receptive faculty of intuition, without the aid of the form of sensibility itself and most importantly of the synthesizing activity of the imagination. The imagination is the understanding's helper: it is what supplies the conditions under which something that is given through our senses can satisfy the laws imposed on the world by the understanding and so can count as an element in an objective state of affairs. The imagination plays a necessary role in giving content to the laws of the understanding.

There are at least the following three points to note about this picture: first, the mind has it within itself to overcome its own subjectivity.[44] That is, overcoming the subjectivity of the senses does not require transcending them altogether, accessing the world without the mediation of the senses. Rather through exercising the power of the understanding, the mind itself is able to overcome its own subjectivity. And it does so by constituting not a world that transcends sensory experience but rather an objective world of sensory experience. Second, cognition of the objective world does not involve sorting out and reasoning on what sensory experience offers up, nor in finding a path to the world through the use of reason alone, but in what could be described as self-determination through the faculty of the understanding. Since it is the understanding that is the source of the objectivity of objects, our mind already contains within itself the conditions under which it is possible for us to know an object. Our coming to know an object is then just a matter of our com-

ing to have experiences of objects that give determinate content to those conditions. Our mere receiving of experiences through the affection of objects on our sensibility does not therefore constitute knowledge. An intuition counts as knowledge only insofar as it gives determinate content to the forms of objectivity that are laid down by the understanding. Thus knowledge has the form not of determination from without but of a kind of self-determination, a self-determination in which our power of understanding undergoes expansion and concrete specification.[45] Our understanding comes to be embodied by a concrete world of knowable particulars, and correlatively, the otherwise surd world that affects our sensibility comes to be articulated as a world of knowable objective states of affairs. Third, not only is the understanding the source of the possibility of (knowable) objects, it is the source of intersubjectivity, of our inhabiting a shared world. In constituting an objective world, a world that we can know, the understanding also constitutes a world that different subjects can share.

Now roughly the same structure is in place in Kant's description of aesthetic experience and judgment. As with the cognitive experience of objects, in aesthetic experience also the mind exercises its capacity to overcome a retreat into its own subjectivity. And the faculty that is responsible for this overcoming is our power of understanding. But the imagination plays an even deeper and more pervasive role here than it does in the constitution of objects of our intuition. For in the latter case the function of the imagination was to give content to the laws of the understanding by providing them with the conditions under which objects given to sense could fall under those laws. However, in the aesthetic case it could be said that our understanding comes on the scene *only through* the activity of the imagination. Instead of providing content to a law that is already prescribed to our experience by the understanding, the imagination engages the understanding without being guided by it. This relationship between the understanding and the imagination is what Kant describes as the harmony of the two faculties in their free play. This free play is not inwardly observed but is manifest to us through the delight that we take in receiving an object in this way through our imagination. Again, the fundamental idea here is that the powers of the mind have it within themselves to overcome their own subjectivity.[46] A beautiful thing is simply something that enables the mind through its own reflective activity to overcome the subjectivity of its bare receptivity, and it does so by giving itself a feeling of pleasure that has its source in the mutually animating reflective activity between the imagination and the understanding.[47]

Kant captures the sense that we are being guided by the beautiful object in our response to it in terms of his view of what could be described as the possibility of realizing the power of the understanding beyond what can be dictated by rules. For Kant when we respond to a beautiful object as a beautiful object we are taking the form of the object in through the activity of the imagination. But the activity of the imagination is free in the sense that it is as if the imagination were doing nothing more than displaying a form for the delight and entertainment of the cognitive power of understanding. He writes,

> But if in the judgment of taste the imagination must be considered in its freedom, then it is in the first instance taken not as reproductive, as subjected to the laws of association, but as productive and self-active (as the authoress of voluntary forms of possible intuitions); and although in the apprehension of a given object of the senses it is of course bound to a determinate form of this object and to this extent has no free play (as in invention), nevertheless it is still quite conceivable that the object can provide it with a form that contains precisely such a composition of the manifold as the imagination would design in harmony with the *lawfulness of the understanding* in general if it were left free by itself. (General Remarks, 5:240–41)

It appears to the understanding as if the imagination were furthering its aim, but since it is doing so through a free play, or at least what is conceived of as being a free play, the aim of our cognitive power is not actually realized in the form of an actual cognition of the object. So the imagination operates as if it were guided by the understanding, and in doing so, it displays the power of understanding to itself. Kant writes,

> Now since no concept of the object is here the ground of the judgment, it can consist only in the subsumption of the imagination itself (in the case of a representation by means of which an object is given) under the condition that the understanding in general advance from intuition to concepts . . . and taste, as a subjective power of judgment, contains a principle of subsumption, not of intuitions under *concepts*, but of the *faculty* of intuitions or presentations (i.e., of the imagination) under the *faculty* of concepts (i.e., the understanding), insofar as the former *in its freedom* is in harmony with the latter *in its lawfulness*. (§35, 5:287)

What might Kant mean by speaking of the subsumption not of intuitions under concepts but of the faculty of imagination itself under the faculty of the concepts, or the power of the understanding? It may be useful here to bring in a comparison with the role that is played by those examples in Wittgenstein's *Philosophical Investigations* that are meant to evince what he calls "our criteria" for our concepts. In his important discussion of Wittgenstein's notion of criteria, Stanley Cavell treats criteria as that which display our grasp of what counts as an example of a concept. Cavell writes, "That you use this object *that* way, sit on it *that* way, is our criterion for calling it a chair. You *can* sit on a cigarette, or on a thumb tack, or on a flag pole, but not in *that* way. Can you sit on a table or a tree stump in that (the "grammatical") way? Almost; especially if they are placed against a wall. That is, you can *use* a table or a stump *as* a chair (a place to sit; a seat) in a way you cannot use a tack as a chair . . . "[48] With respect to criteria for the concept of serving tea, Cavell writes "Nothing insures that after a thousand instances of receiving me to tea you will not the next time lay out the toy tea set that belongs to your child's doll, and proceed to pour."[49] We would no doubt say that such an odd example does not count as an example of "serving me tea," but that isn't because our grasp of that concept includes a rule that serves to exclude such examples as falling

under the concept. Yet such examples bring out what is involved in our understanding of such a concept as that of serving a guest some tea. The example exhibits what we mean when we say of someone that they are serving tea, but it doesn't do so by conforming to a rule that determines what does and does not count as serving tea to someone. There must be a way of being guided by the understanding even where such guidance is not based on rules. As in the case of the examples in Wittgenstein that are meant to display the "criteria" for our concepts, beautiful objects prompt a free play of the imagination that schematizes, or displays, our power of understanding as a whole. Similarly, in following out the form of a beautiful thing the mind is, through a free play of the imagination, doing nothing more than animating its own power of understanding. It is as if, in the imagination's free play, the understanding is playing a guiding role, but it is also guided to itself, for what it recognizes is not some fact but its own power of guiding our inquiry into the world, even where it is not in possession of rules to light the path. Just as the understanding makes it possible for us to cognize objects through our experience by laying down laws to which our experience must conform if they are to count as representing an object, so the power of understanding must guide "the advance from intuition to concept" by projecting possibilities of a shared world through nothing more than the feeling of pleasure that it has from the display of its own power in the free play of its imagination.

What Kant's account of judgments of taste brings out is his view of the pervasiveness of the space of understanding, his view that it is necessary to anything that we can recognize as a realization of this power that it include rather than fully overcome those aspects that are rooted in our vulnerability. It must be possible to display understanding precisely where there can be no grounds for claiming that it is understanding and not, say, just a psychological quirk: our power of understanding must incorporate the inchoate, the inarticulate, the merely felt. The understanding can, as it were, appear in a multitude of forms, which is to say that it is essential to our having the power of understanding that we be able to make demands on universal agreement beyond what can be sanctioned by rules, or by our expertise. The inarticulate, the merely felt can make a claim on us also. This is brought out beautifully in Kant's discussion of the claim that beautiful objects make on us, and that we in turn make on everyone, as it were, on behalf of the beautiful object. In the space of understanding, indeterminacy isn't just a privation of determinacy: it is a very condition of our having determinate understanding.

VIII. THE SINGULARITY OF BEAUTY

I will conclude the discussion by briefly considering a plausible extension of Kant's view about the normativity of judgments of beauty. In "Kant, Proust and the Appeal of Beauty," Richard Moran presents it as Kant's view that the pleasure that

we feel with respect to the beautiful thing is appropriate to it, in the special sense that it merits or even "deserves" our responding to it in this way, that it calls on us to respond to it so.[50] While there are, in my opinion, texts in Kant that support such an understanding of aesthetic normativity, it must also be allowed that that is not how he always, or even usually, seems to think about the normativity of beauty. Nevertheless, the appropriateness of treating beautiful things in this way, as though they called on us to find them delightful to behold, can plausibly be seen to mark the difference between the merely agreeable, which are at best reliable sources of pleasure, and the genuinely beautiful.

In a cognitive judgment, representation "tracks" the world. There is a normative dimension to a cognitive judgment in that cognitive judgments aim to get things "right" about the world, to "correspond" with the way the world is, and can either succeed or fail in doing so. An aesthetic judgment may, in part, depend on getting things right about the world, but "getting things right," or "correctly representing a fact," doesn't seem to express the normativity that an aesthetic judgment purports to have. As Moran points out, the property of being red is something that we may represent, or not, but we don't conceive of it as demanding that we represent it, that we recognize it. We may, or may not, recognize that an object is red, but the object itself is, as it were, indifferent to whether we recognize it so. Mere objects of the agreeable are like the objects of cognitive judgment in this respect, even though the former is subjective and the latter, objective. They don't demand that others find them pleasurable. Just as it is left up to us to recognize a red object as red, so it is left up to us to find an object agreeable, to draw pleasure from the object. By contrast, a person seems to call on us to recognize him or her as a person—and similarly a beautiful thing seems to call on us to recognize it as beautiful, that is, to feel pleasure in relation to it. Just as our love for a person isn't just a feeling that we happen to have in relation to someone, like lust, or amusement, or curiosity, but is rather a feeling that we experience as merited, if not demanded, by the person, so pleasure in a beautiful object is experienced by us as a feeling that is owed to the object, that *we* owe to the object—hence there is a sense in which, like another person, the beautiful object seems to "address" us.[51] Speaking of the attitude of Marcel, the narrator of Proust's *Remembrance of Things Past*, to his beloved hawthorns, Moran puts this point as follows:

> Marcel does not measure himself against his responsiveness to the agreeable, and he doesn't make vows to their objects because the possibility of ceasing to find them a source of pleasure is not something he needs to *preserve* himself against, because that possibility is not experienced as any kind of failure on his part. Within the general economy of the agreeable, if I am tempted by something else, which distracts me from my original desire, I have no reason, apart from prudential or moral considerations extrinsic to the desire itself, not to follow what happens to please me more, and abandon what no longer pleases me. Binding oneself against loss or lapse is not called for, and therefore there is no sense to a vow of any kind. . . . With respect to the beautiful, how-

> ever, he claims a value in continuing to cherish this object, continuing to be responsive to its appeal, which is over and above the value of the pleasure it presently gives him, and may survive it. It is regarding the beautiful, or an object of love, that there is room for the idea of betrayal in the possibility of the abandonment or replacement of one's desire, the prospect of which is experienced as a threat to the self.[52]

Needs or desires are general in their form or nature—in principle any number of things can satisfy a given need or given desire. One stands in a contingent relation to the object of one's desire—an object of desire is simply an object that happens to satisfy one's desire. Like cognition, desire aims at the general—just as an object of cognition is an object that conforms to a certain concept, so the object of desire is also an object that fits a certain concept—the difference is that in the case of desire, conformity of object to concept excites pleasure and so has a practical effect (although, as Kant himself points out, pleasure is an accompaniment of cognition as well, at least when the cognition is still "fresh," not yet dulled by familarity). In the case of love, my relation to an object is singular in nature, not mediated by a general term or concept, for I must experience the very person I love as meriting the feeling of love from me. By contrast in the case of an object whose value rests on its being desired, we have the sense that the object is "used up" by its role in satisfying the desire. This sense stems from the implicit generality of desire that we referred to above. The value of an agreeable object rests on its satisfying the condition of satisfaction that a desire imposes on the world—beyond satisfying these conditions, the object of the agreeable is of no value. The value of the object is exhausted by its capacity to fulfill the conditions laid down by the desire. If my desire is to have linguine carbonara, a plate of linguine carbonara has value for me just insofar as it satisfies the desire. But after the object satisfies a desire, what next? We move onto other desires and hence to other objects (perhaps to a plate of penne Bolognese). Our faculty of desire can never be content with the world, for since it is directed to the world through the *general,* or *universal,* the world is never completely adequate to it.[53]

As Moran and others, such as Kant himself in his ethical writings, have pointed out, the central feature in my response to another person is that I must allow the other person to have a say in how I am to understand or respond to her. This is why the person whom we love cannot be "used up" by the feeling of pleasure that she arouses in me, in the way that a delicious plate of linguine carbonara would be "used up" in the relish with which I devour it. A person is irreducibly particular in a special sense. My understanding of you is not just a matter of my being able to predict your behavior. You have a say in what it is to be known: you must recognize yourself in my description of you. Otherwise my knowledge of you would not evince a responsiveness to you. (There is hardly anything more alienating than when someone takes up a wholly predictive, clinical attitude toward you.) Similarly, my experience of a beautiful thing is answerable to it: it, you could say, must have a say in how I experience it. Thus even though the beautiful thing does not give itself a

purpose, it seems, nonetheless, to be expressive of a purpose that it gives itself and so is felt to, in Moran's words, "address" me.

If we think of the normativity of judgments of beauty in this way, we can see why someone might think that concepts must not determine a judgment of taste, a proscription that may otherwise seem obscure. It is the same reason why a sensation of pleasure that is derived from the gratification of desire must not determine a judgment of taste. Both concept and desire set the terms under which I am to relate to, approach, respond to, or experience the object—but insofar as my relation to the object is already fixed in these ways, I cannot to that extent allow the object itself a say in how I approach and respond to it.

Hegel speaks of a work of art as "pointing beyond itself," by which he meant that the work of art is purposeful in its very structure, even though it importantly does not fulfill a purpose that is external to it, such as human needs and purposes.[54] Borrowing on Kant's idea that judgments of taste are disinterested, Hegel thought that the work of art is distinguished by the fact it is utterly useless. But this does not degrade a work of art to the standing of an altogether meaningless object like a stone lying in a meadow. A work of art is useless but significant: like an organism it has purpose in itself. Since the meaning of a work of art does not lie in its satisfying a purpose that is external to it, as do let's say use-objects such as a chair, a jug, or a driveway, or in merely giving us pleasure, as do the agreeable objects of mere entertainment, it rather keeps directing us back to itself. Its significance seems to lie not in being a source of our entertainment and pleasure, but in being, as it were, incapable of being exhausted in its meaning by the pleasure that it gives, as though it were authorizing the very pleasure that we take in it.[55] What's mysterious, then, about a beautiful thing isn't that it has some secret, incommunicable meaning, or that it exhibits a strange and ineffable correspondence between nature and our own minds. It isn't that the beautiful thing contains some hidden meaning that lies beyond our reach, but rather that it seems to demand that it be treated as the source of its own meaning: it seems to be related to the pleasure that we take in it in a way that resembles the relation between a thinker and her thought, or an agent and her action, as if it were the author of the pleasure.[56]

From Kant's point of view there is really no mystery here at all, for the mind-like character that we seem to bestow to a beautiful thing is really a projection of a structure that the beautiful thing helps to produce in our own minds. It is appropriate to treat a beautiful thing as demanding that we take pleasure in them because our reception of them is through the harmony of the faculties in their free play, and a pleasure that arises through the harmony cannot just be treated as a symptom of the harmony, but must be a pleasure that one is aware of being authorized to enjoy. The free play of the imagination in the reception of a beautiful object "points beyond itself" in the sense that its significance lies within itself. It endlessly directs attention to itself as the source of its own significance. This is because the power of understanding is the source of its significance, the source of the pleasure that we take. We must treat the work of art as authoritative in our attempt to approach it

and respond to it. Kant, I think, can explain this by saying that the free play of the imagination by which I receive a beautiful object is authoritative in the same sense: it "points beyond itself." And this is because the free play of the imagination produces precisely that composition in the manifold that would have been produced if it were doing so for the sake of the entertainment of our understanding. The beautiful object has a self-reflective structure of continually directing attention back on itself because it is in a sense felt to embody our power of understanding itself, which is to say more than just that the beautiful thing is a mere *object* of the understanding.

NOTES

I would like to thank Steven Affeldt, James Conant, Eli Friedlander, Keren Gorodeisky, Kelly Jolley, Christine Korsgaard, Richard Moran, Gabriel Richardson Lear, Katalin Makkai, Sanford Shieh, and David Wellbery for conversations on the topics of this paper. I would especially like to thank Richard Moran for conversations that have deeply shaped, among other things, the orientation to the normativity of the aesthetic that I take here. My debt to the teaching and writings of Stanley Cavell goes well beyond the few citations that I make of his work here. I am also grateful to Peter Railton for the impetus and instruction provided by a paper that he gave at MIT in December 2004. A version of this paper was previously read at Auburn University, Willamette University, Université de Bordeaux, and the University of Chicago. I thank the audiences on those occasions, in particular, Anton Ford, Hannah Ginsborg, Randall Havas, Kelly Jolley, Thomas Land, Eric Marcus, Jean-Philippe Narboux, Sebastian Rödl, Guy Rohrbaugh, James Shelley, Michael Thompson, Lisa Van Alstyne, and Michael Watkins, for their helpful comments. Finally, this paper was finished during a stimulating year at the University of Chicago as the Mellon Sawyer Seminar Post-Doctoral Fellow. For this I thank the Andrew W. Mellon Foundation and for this and much else, I thank James Conant and David Wellbery.

1. By calling a position "objectivist" I mean to encompass both those who treat beauty as a kind of categorical property analogous to primary qualities and those who treat it as a dispositional property which cannot be described apart from a relation to the human subject and so is analogous to a familiar Lockean way of conceiving of secondary qualities. For a version of the latter, see John McDowell, "Value and Secondary Qualities," *Mind, Value, and Reality* (Cambridge, Mass.: Harvard University Press, 1998), 131–50.
2. Hume gives a subjectivist account of beauty. See "Of the Standard of Taste," *Essays Moral, Political, Literary* (Indianapolis, Ind.: Liberty Classics, 1987), 226–53. How something that is not a property of an object at all, nor perhaps, even a possible property of an object, can be "projected" onto objects, is, of course, something that a projectivist would have to explain. Hume's explanation of how there can be standards of correctness in judgments of taste is modeled on his understanding of how there can be standards of correctness in our secondary quality judgments, despite the fact that these judgments do not represent real properties of objects.
3. If the treatment of aesthetic judgment is to follow the pattern of the other *Critiques,* we should seek to find the assumption that subjectivists and objectivists share that seems to occlude the possibility of a third account. In this paper I will follow a suggestion made by Stanley Cavell, and cited approvingly by John McDowell, that the culprit is a psychologized conception of the psychological or of the subjective. See McDowell's "One Strand in the Private Language Argument," *Mind, Value, and Reality,* 296n, and Cavell's "Aesthetics Problems of Modern Philosophy," *Must We Mean What We Say?* (Cambridge: Cambridge University Press, 1976), 91.
4. See Paul Guyer, *Kant and the Claims of Taste* (Cambridge, Mass.: Harvard University Press, 1979), chap. 3, 68-120.
5. Ibid.

6. See *Critique of the Power of Judgment*, trans. Paul Guyer and Eric Matthews (Cambridge: Cambridge University Press, 2000), §18, 5:236–37. All further references to this book will be to this translation and edition.
7. See, for example, "Aesthetic Judgment and Perceptual Normativity," *Inquiry* 49, no. 5 (October 2006): 403–37.
8. This last point is essentially an application of Wittgenstein's discussion of a "private language." See *Philosophical Investigations*, translated E. Anscombe (Oxford: Blackwell, 2001), §256–63, 77–79.
9. Explaining how we acquire particular concepts from experience while already presupposing that we possess some concepts is another matter. But Ginsborg is concerned to understand the conditions under which we could acquire concepts from experience, given a conception of experience that does not already presuppose that the subject of the experience possess any concepts, or at least any empirical concepts. Wittgenstein's arguments suggest that such an explanation, one that gets "underneath" our possession of concepts in general, is a priori impossible. However, I do not mean to suggest that these difficulties tell conclusively against her view, either with regard to its philosophical merits, or as an interpretation of Kant. It goes without saying that her view deserves more extensive and more careful discussion than I offer here. In the end, the views of Kant's account of judgments of taste that I defend in this paper are in important respects close to the ones she develops in a series of papers, ones from which I have, in any case, learned a great deal.
10. This, of course, suggests that the concept of beauty is a concept only in name, since it does not represent objects in the way concepts do. Should he have said, then, that it is an intuition? Well, no, and this for two reasons. First, concepts are still predicates in judgments. While they have a genuine aesthetic use only in singular judgments. They do also have a legitimate employment in universal judgments, such as the judgment that all flowers are beautiful. Their use in such judgments is, however, not aesthetic, but logical. Kant calls such judgments "aesthetically grounded logical judgments." (See §8, 5:215.) Second, although they have an employment only in singular judgments, it is important that they are used in judgment, for they are necessarily used to express a claim about an object, and no intuition can be put to such an employment. Their role is not to express a claim, but to present an object about which the subject can express a claim. This is connected to Kant's view that judgments of beauty don't just give expression to the sensible side of the mind but to the "relation" between the imagination, in its free play, to the understanding. There will be more on this, at least initially, obscure idea later in the paper.
11. This point is made by Stanley Cavell in "Aesthetic Problems of Modern Philosophy," *Must We Mean What We Say,* 73–96, among other places.
12. Immanuel Kant, *Critique of the Power of Judgment,* trans. Paul Guyer and Eric Matthews (Cambridge: Cambridge University Press, 2000), §§36, 5:288.
13. I follow Peter Railton in distinguishing between cognitivity and objectivity, although I divide up the notion of objectivity differently than he does. See his "Is There Hope for a Theory of Objective Aesthetic Value?" (unpublished ms.). In any case the distinctions I draw are familiar ones in contemporary discussions of cognitivity and objectivity.
14. Kant describes what is distinctive about judgments of taste as follows: "Its peculiarity, however, consists in this: that although it has merely subjective validity, it nevertheless makes a claim on *all* subjects of a kind that could only be made if it were an objective judgment resting on cognitive grounds and capable of being compelled by means of a proof" (§33, 5:285).
15. I assume that observational judgments are made non-inferentially in the sense that they are not made on the basis of evidence at all. It isn't that experience provides me with evidence that, say, an object is red, and then on the basis of such evidence, I decide to judge that the thing is red. Rather, experience makes it available to me that the object is red. On this see John McDowell, "Conceptual Capacities in Perception," in *Kreativität,* ed. Gunter Abel (Hamburg: Felix Meiner Verlag, 2005), 1065–79.
16. See Robert Brandom, "Insights and Blindspots of Reliabilism," in his *Articulating Reasons: An Introduction to Inferentialism* (Cambridge: Harvard University Press, 2000), 108–9.
17. We can get at this by comparing aesthetic value with the value of an object to which we are responsive through love. In loving someone I respond to the person qua presented to me not qua object of judgment; it is qua presented to me that I declare a person lovable. If I abstract from the person's presentation, all of the features that embody the person's loveableness fall away, thereby

leaving nothing for the judgment that the person is loveable to adhere to. A person's loveableness must be embodied in features of her that belong to her presentation before my mind. Loveableness is a way in which I experience the person: it is a value that I must see in the features that a person presents to me. The point is not that certain presented features distinguish someone as loveable but that if loveableness is to be found it must be embodied by certain features that belong to the presentation that the person presents before my mind. The judgment that a person is loveable is singular in the sense that it ascribes a value to the person qua intuited rather than qua thought. This is just to say that loveableness is a value of appreciation rather than of thought: it is a value that inheres in an object qua presented to me.

18. Keren Gorodeisky helpfully develops this idea in her paper, "Kant on Aesthetic Normativity," unpublished ms.
19. Nor need it be the case that all that you are saying beyond your undergoing the experience that the scene is funny is that the scene is such as to cause such an experience. The claim that the judgment that something is funny is essentially expressive can be separated from a reductive account of the property of being funny in terms of what is apt to cause certain experiences in me. When you say that the scene is funny, you are, I take it, saying that it is such that laughter is the appropriate response to it. And there is something distinctly odd about saying that a scene is funny if you don't yourself find it so, if you don't respond to it as such. See David Wiggins, "A Sensible Subjectivism?" *Needs, Values, Truth,* 2nd ed. (Oxford: Blackwell, 1991), 185–214.
20. Cavell, "Aesthetic Problems of Modern Philosophy," *Must We Mean What We Say*.
21. This is connected to the idea that judgments of taste appear constantly to drive us back to our experience, not just because they seek the evidence of experience, but because to do so seems to be inseparable from their point.
22. Thus Kant is sometimes driven to speak, to my ear, pregnantly, of the feeling of pleasure as itself a predicate of aesthetic judgment. Here again is Stanley Cavell, "Knowing by feeling" is not like "knowing by touching"; that is, it is not a case of providing the *basis* for a claim to know. But one could say that feeling functions as a touchstone: the mark left on the stone is out of the sight of the others, but the result is one of knowledge, or has the form of knowledge—it is directed to an object, the object has been tested, the result is one of conviction . . . It is not merely that I want to tell you how it is with me, how I feel, in order to find sympathy or to be left alone, or for any other of the reasons for which one reveals one's feelings. It's rather that I want to tell you something I've seen, or heard, or realized, or come to understand, for the reasons for which *such* things are communicated (because it is news, about a world we share, or could). Only I find that I can't *tell* you; and that makes it all the more urgent to tell you. I want to tell you because the knowledge, unshared, is a burden—not, perhaps, the way having a secret can be a burden, or being misunderstood; a little more like the way, perhaps, not being believed is a burden, or not being trusted. It matters that others know what I see, in a way it does not matter whether they know my tastes." Cavell, "Music, Decomposed," *Must We Mean What We Say*, 192.
23. On this point see Cavell, "Aesthetic Problems of Modern Philosophy," 92.
24. "Aesthetic Problems of Modern Philosophy," 95–96.
25. My description of "seeing aspects" in what follows is influenced by the helpful discussion in Avner Baz's "What's the Point of Seeing Aspects?" *Philosophical Investigations* 23, no. 2 (April 2000): 97–121.
26. Samuel Taylor Coleridge, *Coleridge's Poetry and Prose*, New York: W. W. Norton, 2004, p. 155–158.
27. Having said that, it may be that the real threat here isn't reallly one of internal incoherence but rather a kind of deadness or insensibility which amounts to the threat of inarticulacy: the incapacity to give voice to the world. For an illuminating discussion of Moore's paradox in terms of the breakdown of the unity of the mind, see Richard Moran, *Authority and Estrangement: An Essay in Self-Knowledge* (Princeton: Princeton University Press, 2001), chap. 3, 66–100.
28. Richard Moran discusses the theme of aesthetic judgment and disappointment. I have learned much from his characterization of the difference between the special normativity of judgments of taste and the normativity of ordinary cognitive judgments. See his "Kant, Proust and the Appeal of Beauty."
29. It is, of course, an important feature of Kant's view of human sensibility that it has a spatial and

temporal form as well as a matter (sensation). However, it is also important to recognized that for Kant considered in abstraction from any contribution from the understanding, sensibility doesn't offer representations that are organized according to spatial and temporal relations, but offers only a manifold that contains the necessary susceptibility of being so ordered, through the application to this manifold of the understanding. See §26 of the second edition Transcendental Deduction in the *Critique of Pure Reason,* trans. Norman Kemp Smith (London: MacMillan, 2003), B159–61.

30. Railton defends a view of this sort, although he presents it as a development of Hume's rather than Kant's view. See Railton, "Is There Hope for an Objective Theory of Aesthetic Value?"
31. §9, 5:218–19.
32. See Paul Guyer, *Kant and the Claims of Taste* (Cambridge, Mass.: Harvard University Press, 1979), chap. 3, 68–120, and Guyer, *Kant* (London: Routledge, 2006), 314–16.
33. See Hannah Ginsborg, "The Key to Kant's Critique of Taste," and Paul Guyer, *Kant and the Claims of Taste*, chap. 3, 68-120.
34. Put the point this way: in order for someone to count as making a judgment at all, she must be claiming that everyone ought to judge as she herself is. It is one thing to judge that something is the case, and it is another to expect that others will agree with one's judgment. But let us suppose that someone adopts it as a policy to only judge what others will agree with: a kind of cognitive parallel to the policy of only acting in a way that others will approve of, a policy, if you will, of radical heteronomy. Such a policy would be incoherent, for it's hard to see how by following it you would end up judging anything at all. In order for others to agree or disagree with you, they must take you to have made a judgment. If, however, they understand you to be following the policy of judging whatever would elicit their agreement, they won't be able to identify any act of judgment with which they can agree or disagree. Surely they can rightly complain: we need to know what you judge, not what you think we will judge. In order to count as judging anything at all you must make a claim to universal agreement. Without making such a claim you will not have offered up anything with which someone could agree or disagree.
35. Two talks that I have recently heard have helped me reach these formulations. These are: Eric Marcus, "The Rational Causation of Belief," and Sebastian Rödl, "Logical Form as Relation to an Object."
36. Plato and Aristotle, of course, both characterized the virtue of justice in this way, distinguishing justice from a mere *techné*, or craft, or, it could be said, skill.
37. I am indebted to David Wellbery for discussion of this point.
38. To "determine" for Kant means to bring about a change from one state to an opposing state. Thus the litmus paper is determined from being white to red, and the understanding determines the cognitive subject by generating a change of state from not knowing to knowing. But since reflective judgment merely searches for a concept, it doesn't determine the coming into being of a new state of the cognitive subject. For an helpful account of what Kant means by the self-determination of the cognitive power, see Stephen Engstrom, "Understanding and Sensibility," *Inquiry* 49, no. 1 (February 2006): 2–25.
39. One thinks here of his response to Hume both about causality and about moral distinctions.
40. Intro., VI, 5:186–87.
41. Intro. V, 5:185.
42. There is an interesting parallel here with Kant's claim early in section 3 of the *Groundwork of the Metaphysics of Morals* that we must act under idea of freedom. Similarly, he seems to be claiming here that we must judge under the idea of the purposiveness without purpose of nature for our cognitive faculties.
43. "For since the ground of the pleasure is placed merely in the form of the object for reflection in general, hence not in any sensation of the object and also without relation to a concept that contains any intention, it is only the lawfulness in the empirical use of the power of judgment in general (unity of imagination with the understanding) in the subject with which the representation of the object in reflection, whose *a priori* conditions are universally valid, agrees; and, since this agreement of the object with the faculties of the subjective is contingent it produces the represen-

tation of a purposiveness of the object with regard to the cognitive faculties of the subject." Intro., VII, 5:191.

44. I am helped to this formulation by Cavell, *Cities of Words* (Cambridge, Mass.: Harvard University Press, 2004), 130.
45. For an illuminating discussion of this idea, see Stephen Engstrom, "Understanding and Sensibility," *Inquiry* 49, no. 1 (February 2006): 2–25.
46. But unlike its overcoming of subjectivity in the cognitive sphere, the aesthetic overcoming of subjectivity stays, you might say, on a subjective level. It contests, you could say, the falling into the subjectivity of privacy without taking up a standpoint outside it. There is the feeling that subjectivity is overcome in the aesthetic case through a kind of transformation. The very capacity for pleasure and displeasure that may initially seem to define the space of our privacy is transformed through the enlivenment of our mental faculties by a beautiful object into a touchstone of intersubjectivity, or universal communicability.
47. Kant describes the feeling of pleasure in a judgment of taste as "reflective" as opposed to "sensory." By this he doesn't mean that we are aware of the pleasure through reflective introspection, or that we somehow deliberate on the feeling of pleasure, as we reflect on what we ought to do or to believe. By "reflective" I take Kant to mean through our spontaneity, rather than simply through the external determination of our receptivity. The feeling of pleasure is "reflective" because it is conditioned by the unity that is brought to the activity of the imagination by the understanding.
48. *The Claim of Reason: Wittgenstein, Skepticism, Morality, and Tragedy* (Oxford: Oxford University Press, 1979), 71.
49. *Philosophy the Day after Tomorrow* (Cambridge, Mass.: Harvard University Press), 136.
50. Moran, "Kant, Proust and the Appeal to Beauty."
51. Moran stresses this similarity between persons and aesthetic objects.
52. Moran, "Kant, Proust and the Appeal to Beauty," 29, 30.
53. Hegel makes a similar point in the section on Desire in *Phenomenology of Spirit,* trans. A. V. Miller (Oxford: Oxford University Press, 1977), 104–11.
54. "But in comparison with the show or semblance of immediate sensuous existence or of historical narrative, the artistic semblance has the advantage that in itself it points beyond itself, and refers us away from itself to something spiritual which it is meant to bring before the mind's eye." Georg Wilhelm Friedrich Hegel, *Introductory Lectures on Aesthetics*, trans. Bernard Bosanquet (London: Penguin, 1993), 11. My approach to Hegel here is indebted to Moran's Aesthetics Lectures at Harvard.
55. For a helpful discussion of the "reciprocity" in our aesthetic relation to an object, in which the object must function as the standard of our response and so must possess a significance that cannot be reduced to the responses it is capable of eliciting, see Keren Gorodeisky, "Aesthetic Subjectivity Restored."
56. Paul Valery describes the self-directing and inexhaustible nature of aesthetic reception in the following passage: "When the man who is walking has reached his goal—as I said—when he has reached the place, book, fruit, the object of his desire (which desire drew him from his repose), this possession at once entirely annuls his whole act; the effect swallows up the cause, the end absorbs the means; and, whatever the act, only the result remains. It is the same with utilitarian language: the language I use to express my design, my desire, my command, my opinion; this language, when it has served its purpose, evaporates almost as it is heard. I have given it forth to perish, to be radically transformed into something else in your mind; and I shall know that I was understood by the remarkable fact that my speech no longer exists: it has been completely replaced by its meaning—that is by images, impulses, reactions, or acts that belong to you: in short, by an interior modification of you . . . The poem, on the other hand, does not die for having lived: it is expressly designed to be born again from its ashes and to become endlessly what it has just been. Poetry can be recognized by this property, that it tends to get itself reproduced in its own form: it stimulates us to reconstruct it identically" (from "The Art of Poetry," in *The Art of Poetry* [Princeton: Princeton University Press], 72). In an aesthetic experience the manner in which the unity is produced by the imagination is inseparable from our grasp of the unity itself—

so that the only way in which we can apprehend the unity would be to reproduce exactly the process that gave rise to the sense of the unity in the first place. And that is exactly what we do. The unity pleases us but the only way the unity can be reproduced is to repeat the process. The unity cannot be grasped as such but keeps resolving itself into the process, and the process gives rise to a sense of unity. Thus as we take up the beautiful object in our imagination its fate is to become endlessly what it is.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Spontaneity and Receptivity in Kant's Theory of Knowledge

Andrea Kern
University of Cottbus
Translated from the German by Daniel Smyth

I. INTRODUCTION

Kant's theory of knowledge rests upon the thought that "all our knowledge" requires receptivity as well as spontaneity (*CPR* B 1).[1] That knowledge requires receptivity is so obvious for Kant that he places it as an unquestionable truism at the beginning of the *Critique of Pure Reason*, which he opens with a rhetorical question:

> There can be no doubt that all our knowledge begins with experience. For how should our faculty of knowledge be awakened into action did not objects affecting our senses partly of themselves produce representations . . . (*CPR* B 1)

When Kant claims that "there is no doubt that all our knowledge begins with experience," i.e., with a receptive, sensible act, that does not mean that it is clear why this is so. As the progression of the *Critique* reveals, Kant seeks to explain, among other things, why this is as it doubtlessly is. Kant's primary concern, however, is not to justify this thought, which he unquestioningly assumes, but rather to justify the complementary thought: namely that, although every act of knowledge *begins* with a receptive act, no act of knowledge *exhausts* itself in an act of receptivity. Knowledge arises with experience, but "it does not follow that it all arises *out of* experience"

(*CPR* B 1). Knowledge is "something composed of what we receive through impressions and of what our own faculty of knowledge (sensible impressions serving merely as the occasion) supplies *from itself*" (*CPR* B 1, emphasis added). Kant calls that which our faculty of knowledge "supplies from itself" acts of spontaneity. Knowledge, according to Kant's fundamental idea, is a "compound" of receptivity and spontaneity.

Yet what exactly is Kant describing with the expressions 'receptivity' and 'spontaneity'? And for what reason is knowledge only possible through a combination of both? In the following, I will show that there is a difficulty hidden in Kant's apparently clear statement—that in all our knowledge we are dealing with a "compound"—a difficulty which perhaps Kant himself did not see very clearly. For Kant uses the expressions 'spontaneity' and 'receptivity' ambiguously: Sometimes to refer to *two* faculties, which together characterize every "finite thinking being" (*CPR* B 72); sometimes to refer to two sides of *one* faculty of a finite thinking being—two sides of its faculty of knowledge.

Since it holds good in both cases that in order to know, it is neither sufficient that one merely have a receptive representation nor that one merely have a spontaneous representation, but that knowledge is only possible when the two come together, one might think that not much depends on whether Kant accounts for knowledge through two capacities or through two sides of a single capacity. Now, I want to show just how much depends on this question, namely these three things: first, how we should understand Kant's central epistemological thought, that knowledge is only possible through the combination of spontaneity and receptivity; second, how this thought is to be justified; and finally, whether Kant manages to show that a being that possesses receptive and spontaneous representations is capable of attaining knowledge. I suspect that Kant did not clearly distinguish between these two interpretations of his fundamental thought and that, as a result, both are present in the *Critique of Pure Reason*. This is also the reason why the relation of the *Critique* to the Skeptic is notoriously ambivalent. I will show that only the interpretation that represents receptivity and spontaneity as two sides of a single capacity can legitimate Kant's claim to have shown that a finite thinking being can attain knowledge. I shall proceed by showing first how Kant establishes the necessity of both receptivity and spontaneity for human knowledge, spelling out what it means to know "originally" or "discursively" (section 2). Then I will show that the understanding of receptivity and spontaneity developed so far seems to lead to an aporia, which makes it inexplicable how knowledge can be "grounded" in receptive acts (section 3). I understand the two readings of Kant's fundamental thought distinguished above as two answers to this aporia (sections 4 and 5). In conclusion, I will show how each reading is linked to a different understanding of how Kant rebuts the Skeptic who doubts that we can have knowledge of things "external to us" (section 6).

II. ORIGINAL AND DISCURSIVE KNOWLEDGE

Let us first examine how Kant characterizes the idea of knowledge generally, independently of the question whether receptive and spontaneous acts should be understood as acts of two separate capacities or as two sides of one capacity.

"Knowledge," according to Kant, "consists in the determinate relation of given representations to an object" (*CPR* B 137). Kant explains that the relevant relation—the relation in which those representations stand to their objects—is "objective validity." So someone who knows something has a representation that he takes to be valid of the object and which is indeed valid of it. We can say of a representation that is valid of an object that it agrees with the object. And if "truth consists in the agreement of knowledge with its object" (*CPR* B 83), we can also say that knowledge is a true representation of an object.[2] This characterization of knowledge is so general that it is valid for *every* subject of knowledge, finite or infinite.

Now, how is it possible to have such representations? Kant answers this question in two steps. The first step states that, since knowledge requires that one have a valid representation of the object, knowledge is only possible when "the object is given" (*CPR* B 33). That an object is given means that it becomes the content of a conscious representation, which obviously is a prerequisite to one's understanding the representation as valid of the object.

In general an object is given to one as one intuits the object. Kant defines intuitions so that they perform just the function of giving an object. For Kant understands an intuition to be a *singular* representation relating *immediately* to the object (cf. *CPR* B 33; B 377). However intuitions are further specified, the definition entails that one intuits an object only if the object exists. This is what it means that the representation relates *immediately* to the object. And precisely because an intuition of an object exists only *together with* the object of that intuition, Kant can say that an intuition is the kind of representation through which an object is given. A representation that relates to its object by means of other representations only gives further representations of an object, but not the object itself. So when we ask how an object can be given, we encounter representations that relate to the object immediately, i.e., not through other representations.[3] For the following, it is important to note that Kant's thought that intuitions are necessary for knowledge does not describe a feature peculiar to human knowledge. It characterizes *every* mode of knowledge that its object be given in intuition—even knowledge that the "primordial being" (Urwesen) would have of objects (*CPR* B 72).

The second step of Kant's answer now states that we can distinguish two kinds of intuition, and thus two manners in which a representation can give an object: the intuition can be either original or sensible. An original intuition is distinguished by the fact that it produces the intuited object with regard to its existence. It is an intuition "which can itself give the existence of its object" (*CPR* B 72). Kant calls this "original intuition" (*CPR* B 72) because it is not derived from the object, but rather

is the origin of the object. Only the "primordial being," of which, as Kant emphasizes, we can form no concept (*CPR* B 139), possesses such a mode of intuition.

Now, if an intuition does not give its object by producing it, then it can give it only by being caused by the object. The faculty of such intuitions is the faculty of sensibility:

> The capacity (receptivity) for receiving representations through the mode in which we are affected by objects, is entitled *sensibility*. Objects are *given* to us by means of sensibility . . . (*CPR* B 33)

When a being does not know by intuiting objects originally, it can only know by intuiting objects sensibly. And such is the case for humans: "Now without sensibility we cannot have any intuition" (*CPR* B 92). "Now the only intuition possible to us is sensible" (*CPR* B 146). But what is a sensible intuition? A sensible intuition is "dependent upon the existence of the object of intuition" (*CPR* B 72). For an intuition to be *dependent* upon the existence of its object and for it to be *sensible* are, according to Kant, the same thing (cf. *CPR* B 72). An intuition is sensible if and because it "depend[s] immediately upon the presence of [the] object."[4] That an intuition is sensible means, more precisely, that the subject must be "affected" by the object in order to receive an intuition of it (cf. *CPR* B 33). "Affecting" is a causal relation. That a sensible intuition depends on the object thus means, more precisely, that it causally depends on the object. By causing a "sensation" (Empfindung) in the subject, the object produces an intuition in her (*CPR* B 34). The object can have such an effect only on a subject endowed with the requisite capacity, viz. the capacity to receive a representation of the object by being affected by the object. This is precisely what defines the faculty of sensibility.

Original and sensible intuition are both ways in which an object is given. In an original intuition, the object is given in virtue of the fact that the intuition produces it so that, here, that an object is given is explained *by the intuition itself*. By contrast, an object is given in sensible intuition in virtue of the fact that the intuition is produced by the object. Thus, here, that an object is given is explained *by the object*.

Now Kant says that, in order to know, it is insufficient to be endowed with a faculty of sensibility. Why? If knowing means having a representation that one takes to be valid of its object, then knowing presupposes that one is conscious of having this representation. The knowledge with which Kant is concerned is self-conscious knowledge. Of course one can use the concept of knowledge in such a way that it also applies to beings that are not self-conscious, e.g., brutes and infants. Kant's analysis of the conditions under which a being can know something, however, refers to a particular concept of knowledge, the concept of *self-conscious knowledge*. According to Kant, only beings who possess understanding can have knowledge in this sense. Why?

In §16, Kant argues thus: one has self-conscious representations only if one combines representations in such a way that they "can stand together in one universal self-consciousness" (*CPR* B 132). Hence, self-consciousness "contains a synthesis of representations, and is possible only through the consciousness of this synthe-

sis" (*CPR* B 133). Self-consciousness rests upon a synthesis of representations, of which the subject of this synthesis is aware. It is contained in the fact that the representations I have are *my* representations that I combine them into this unity. For "only insofar as I can grasp (begreifen) the manifold of the representations in one consciousness, do I call them one and all *mine*. For otherwise I should have as many-coloured and diverse a self as I have representations of which I am conscious to myself" (*CPR* B 134).

Self-conscious representations, according to the thought of §16, require an act that combines them into a unity. Hence, Kant concludes, self-conscious representations are only possible for beings who possess understanding. Section 15 gives the argument for this claim. Kant explains:

> [T]he *combination* (*conjunctio*) of a manifold in general can never come to us through the senses . . . For it is in an act of spontaneity of the faculty of representation (Vorstellungskraft); and since this faculty, to distinguish it from sensibility, must be entitled understanding, all combination . . . of the manifold in intuition, or of various concepts . . . is an act of the understanding . . . to which the general title "synthesis" may be assigned, as indicating that we cannot represent to ourselves anything as combined in the object which we have not ourselves previously combined, and that of all representations *combination* is the only one which cannot be given through objects. Being an act of the self-activity of the subject, it cannot be executed save by the subject itself. (*CPR* B 129–30)

Kant argues as follows: the combination of a manifold cannot "come to us" through the senses. If the representation of a combination cannot be given to the subject through its senses, then it must be a spontaneous representation. For *either* the object explains the presence of a representation by means of the senses, *or* it does not. If it does not, then the representation must be explained in some other manner, which does not appeal to the object and the senses. Kant calls such an explanation an explanation by "spontaneity." The criterion that distinguishes sensible from spontaneous representations is therefore the different relationship in which the representation stands to the object and to the subject. A sensible representation is a representation that *depends* on the object in the sense that the object causes it in causing a "sensation" in the subject (*CPR* B 33). The subject "receives" the representation from the object by "being affected" by the object (*CPR* B 74f). Thus, with regard to sensible representations, the subject is passive. A spontaneous representation, by contrast, is one that the subject "itself produces" (*CPR* B 75). A spontaneous representation is thus independent of the object in the sense that it is not caused by the object. Thus, in this sense, the subject is active in respect of such a representation. Kant calls the faculty from which such spontaneous representations spring the "understanding."

For Kant, the difference of sensibility from understanding is, as the passage cited above shows, not a presupposition of his analysis of knowledge, but rather a result of it. The understanding, Kant explains, is, in its most general description, a faculty of combining representations: the understanding is "itself nothing more . . .

than the faculty of combining a priori" (*CPR* B 135). And since an act of combination is necessary for self-conscious representations, as Kant argues in §16, it follows that only a being with understanding has self-conscious representations. So just as he did for the faculty of sensibility, Kant introduces the understanding *in terms of its specific function*.

Kant introduces the understanding as a spontaneous faculty of representation at the point where he explains how one can have a self-conscious representation of a manifold. A self-conscious representation cannot be given through the senses alone, but requires a *spontaneous* act of the understanding. That this act is spontaneous signifies that it is not caused by the object to which it relates. In contradistinction to a sensible representation, a spontaneous representation is not conditioned by anything that does not depend on it. In this sense, it is conditioned by nothing external.

In thus characterizing the understanding, Kant leaves it open how the understanding has a self-conscious representation of an object. In analogy to the two ways in which an object can be given—in an original or in a sensible intuition—Kant distinguishes two ways in which the understanding can have a self-conscious representation. An understanding can have a self-conscious representation of an object by having an "original intuition" of the object (cf. *CPR* B 72). In that case it is an intuitive, original understanding—a spontaneous faculty of intuition. The intuition of an original understanding does not relate to a manifold that precedes and is independent of it. An original understanding has a self-conscious representation of a manifold by producing that manifold through its representation of it. The understanding produces the manifold in such a manner that it "apprehend[s] [it] together in one self-consciousness," from which it follows that it cannot have anything other than a self-conscious representation of this manifold (*CPR* B 137). Hence, Kant says of the original understanding that "through its self-consciousness the manifold of its intuition would, at the same time, be given," i.e., that "through [its] representation the objects of the representation should at the same time exist." It follows that such an understanding "would not require, for the unity of consciousness, a special act of synthesis of the manifold" (*CPR* B 138f).[5]

An original understanding is a peculiar understanding. Kant emphasizes that "we cannot form the least conception" of it (*CPR* B 139). Yet we can and must "think" such an understanding in order to get clear about what is distinctive about the human understanding, which is not original.[6]

The alternative to an original understanding is a discursive understanding. If an understanding does not have a self-conscious representation of a manifold in virtue of producing the manifold, then it can only have a self-conscious representation of a manifold in virtue of integrating (zusammenfassen) a given manifold into a unified self-consciousness by means of concepts. Concepts are, according to Kant, universal representations, i.e., in contrast to intuitions they relate not only to individual objects, but are valid of many. Concepts rest upon the "unity of the act of bringing various representations under one common representation" (*CPR* B 93). Kant elaborates that "the only use which the understanding can make of these

concepts is to judge by means of them" (*CPR* B 93). Accordingly, concepts are "predicates of possible judgments" (*CPR* B 94). That means that the acts of the understanding, which integrate a manifold into one self-consciousness by means of concepts, are judgments. Judgments are the paradigmatic acts of the discursive understanding. Thus "we can," according to Kant, "reduce all acts of the understanding"—more precisely: of the discursive understanding—"to judgments, and the *understanding* may therefore be represented as a *faculty of judgment*" (*CPR* B 94). It follows from this, as Kant argues in §20, that the act of the understanding, through which the manifold of given representations is integrated into the unity of self-consciousness, is the act that characterizes every judgment *as such* and which Kant calls "the logical function of judgments" (*CPR* B 143).

The discursive understanding thus has self-conscious representations by "produc[ing] the logical form of a judgment" (*CPR* B 105). With this, we arrive at Kant's central doctrine: a being whose understanding is not a source of original intuitions, but rather of concepts and judgments, can have representations that consist in a determinate relation to an object and constitute knowledge only if it possesses both sensible intuitions and concepts. That is, only if it has representations it produces of itself as well as representations caused by the object. The consequence for human knowledge is that "[knowledge] involves two factors: first, the concept, through which an object in general is thought (the category); and secondly, the intuition, through which it is given" (*CPR* B 146).

When Kant calls the understanding the faculty of knowledge (*CPR* B 92), this does not mean the same for an original understanding and for a discursive understanding. An original understanding is a faculty of knowledge that is *independent* of the object. For, such an understanding produces its objects by intuiting them. The discursive understanding on the other hand is a *dependent* faculty of knowledge in the sense that it depends upon a faculty of sensibility to deliver up intuitions. And since the faculty of sensibility, for its part, is a dependent faculty, insofar as it is dependent upon the objects that affect it, we can also say that the dependence of the discursive understanding upon sensibility is in the end a *dependence upon objects*.

III. THE APORIA OF RECEPTIVITY AND SPONTANEITY

It follows from the concept of knowledge that a discursive understanding requires sensible intuitions. For to know means to refer representations to objects as valid of them, and, without sensible intuitions, a discursive understanding would not be given an object to which it could refer. This shows *that* sensible intuitions are necessary for a discursive understanding to know. It does not yet explain *how* sensible intuitions *can* accomplish what they *must* accomplish in order for knowledge to be possible. How do sensible intuitions make knowledge possible?

Kant answers this question as follows: sensible intuitions make knowledge possible by being its "ground" (Boden) (*CPR* B 6n), and provide it "guidance" (Leitfaden) (*CPR* B 7) and "testimony" (Zeugnis) (*CPR* B 11). This describes an aspect of the fact that intuitions give the object to the understanding. When a sensible intuition gives the object, the subject is in possession of something that guides it in its judgment and provides grounds for its judgment. Formulated the other way around, an intuition only gives the object when it orients the subject in its judgment about the object so that its judgment can be "grounded" upon the intuition (*CPR* B 11). Here the question arises how a sensible intuition must be constituted if it is to be able to guide the understanding in its judgments.

In this connection, let us first reconsider Kant's account of the idea of receptivity, which he uses to characterize the relevant mode of intuition, as we have encountered it thus far. The idea of receptivity is supposed to explain how an object can be given to a subject. The idea of receptivity explains this through the fact that a sensible intuition is causally *dependent* upon the object. That is to say, it explains the fact that an object is given by means of the object. Further, a sensible intuition must guide the subject in judging. Yet someone can only be guided by something in the relevant sense if she is conscious of what is guiding her. That intuitions orient the subject with regard to how she should judge thus entails that intuitions are *self-conscious* representations. The intuitions that, according to Kant, are prerequisite to judging must accordingly be both dependent upon the object as well as self-conscious.

When we recall Kant's account of the spontaneity of judgment, however, we note a difficulty. Spontaneity explains how representations can be self-conscious. For self-conscious representations rest upon the representation of a conjunction of a manifold of representations in one self-consciousness. And the representation of a conjunction cannot "come to us through the senses" (*CPR* B 129). Therefore the subject can only enjoy such a conjunction by "execut[ing] [it] itself" (*CPR* B 130). Yet it follows from this that, in accordance with the account thus far, *either* a representation is dependent upon the object—in which case one does not self-consciously represent the object. *Or* one has a self-conscious representation of the object—in which case the representation cannot depend on the object, but must be spontaneous.

Therewith, the following problem arises: we must understand how to combine the thought that a spontaneous representation of an object—i.e., a judgment—is only possible if it is guided by a representation that is *dependent* on the object, with the thought that a representation can only guide a judgment if that representation is *self-conscious*. In accordance with the contrast between spontaneity and receptivity as it has been characterized thus far, it is, however, not apparent how these two thoughts can be combined. Indeed an aporia appears to arise from Kant's thesis that judgments are only possible insofar as they are guided by intuitions: in order for an intuition to be able to guide a judgment, it must be both object-dependent

and self-conscious. Yet if self-conscious representations are executed by the subject itself, the idea that a subject could be guided by a sensible intuition appears incoherent. It combines two features of intuitions that appear mutually exclusive.

How does Kant solve this aporia? I would like to contend that Kant's real contribution to answering the question how is knowledge possible consists in his resolution of this perplexity. In the following, I shall seek to show that Kant attempts to solve this aporia in two ways, which he does not clearly distinguish one from the other. Both are thus to be found in the secondary literature. I will call the first the 2-capacities-reading and the second the 2-aspects-reading. The first predominates in the secondary literature. However, I will show that only the second can solve the aporia.

IV. RECEPTIVITY AND SPONTANEITY AS TWO DISTINCT CAPACITIES

In order to work out the contrast between the two readings, we must first say a bit about how Kant understands the concept of a capacity. When Kant calls understanding and sensibility "faculties" or "capacities," then he represents them as something general that *explains* the acts that actualize them. He expresses this by saying that a capacity is the "source" (Quelle) or "origin" (Ursprung) of its acts (cf. *inter alia CPR* B 74; B 81) or that the acts "spring from" (entspringen) (cf. *inter alia CPR* B 1; B 33; B 103) the capacity. Our knowledge "springs from two fundamental sources" (*CPR* B 74). Occasionally he also speaks of representations being "based on" the relevant capacity: "concepts are based on the spontaneity of thought, sensible impressions on the receptivity of impressions" (*CPR* B 93). What these characterizations have in common is that they describe the relation of a capacity to its acts as one of *explanation*.[7]

If sensibility and understanding are capacities, then this means that they explain acts of sensibility and acts of understanding. And it means that acts of sensibility and acts of understanding are what the corresponding capacities explain. The understanding explains acts of the understanding, sensibility explains acts of sensibility, etc.

"Receptivity" and "Spontaneity," as we said above, describe two kinds of representations: such as are caused by the object and such as are produced by the subject. Now the 2-capacities-reading understands Kant as saying that two distinct capacities underlie these representations: a receptive faculty explains receptive representations, a spontaneous faculty explains spontaneous representations.

Since receptive representations are object-dependent, a receptive faculty is object-dependent: it can only be actualized when an object causes its actualization. By contrast, spontaneous representations spring from a faculty that is object-independent and whose actualization therefore occurs "through the subject itself."

Receptivity and spontaneity, according to this reading, characterize two capacities, which are actualized in two different ways.[8]

Kant's characterization of sensibility and understanding as "two stems of human [knowledge], namely *sensibility and understanding*, which perhaps spring from a common, but to us unknown root" (*CPR* B 29) speaks for this reading. So does his definition of receptivity and spontaneity as "two fundamental sources of the mind," which are distinguished by the manner in which we employ them to attain representations of objects (*CPR* B 74). From the one "fundamental source" issue forth representations that the subject herself produces, from the other representations that she receives from the object:

> If the *receptivity* of our mind, its power of receiving representations in so far as it is in any wise affected, is to be entitled sensibility, the mind's power of producing representations from itself, the *spontaneity* of knowledge, should be called the understanding. (*CPR* B 75)

The 2-capacities-reading attempts to solve the above-mentioned aporia as follows. Since, according to the 2-capacities-reading, a representation springs from *either* the receptive *or* the spontaneous faculty, it is ruled out that a receptive representation *as such* be self-conscious. P. F. Strawson gets at the heart of the 2-capacities-reading when he writes:

> The doctrine of synthesis rests firmly on the distinction of faculties. What is given in sense alone, in mere receptivity, is one thing; what is made out of it by the understanding, the active faculty, . . . is quite another.[9]

A receptive representation, according to this reading, springs from a faculty that is defined by its *contrast* with a spontaneous faculty of representation: it is not actualized by the subject, but rather by the object. In accordance with this presupposition, a receptive, object-dependent representation can only be self-conscious if the subject addresses itself to it in a spontaneous representation and thus makes it self-conscious. A sensible representation capable of guiding the subject is then the result of two steps. In the first step, an object actualizes the subject's faculty of sensibility: the subject has a sensible representation, which does not yet belong to the unity of self-consciousness. In the second step, the subject produces a spontaneous representation by which it brings the given sensible representation inside the unity of self-consciousness. After this second step, the subject has a sensible representation that can *guide it* in judging.

Following this reading, the task of the receptive faculty is to deliver up object-dependent representations, which are, however, not yet capable of guiding the subject in her judgments. It is the task of its spontaneous faculty to unify these sensible representations by subsuming the manifold of these representations under a concept. According to the 2-capacities-reading, when Kant says in §16 that the "*I think* must *be able* to accompany all my representations" (*CPR* B 131f.), he means that a sensible representation is not "nothing" for me, but can guide my judgments, only

if I address myself to it in an "act of spontaneity" (*CPR* B 132), in which I subsume the manifold of representations under a concept by conjoining them in accordance with the logical functions of judgment and thereby bring the manifold of representation inside the unity of self-consciousness.

However, this attempt to resolve the aporia of spontaneity and receptivity leads to a *regress*. One must be conscious of one's sensible representations as one's own representations, because only then can one be guided by them. And one can only know an object if one is guided by sensible representations. Now the 2-capacities-reading says that one becomes conscious of representations as one's own by subsuming the manifold of sensible representation under concepts—but that means: by *making a judgment*. Hence one must perform an act of *just the sort* whose possibility is supposed to be being explained. In order to be able to make a judgment, one must make a judgment about one's sensible representations. The explanatory regress, in which the 2-capacities-reading gets caught up, has this form:
(1) A judgment must be guided by sensible representations.
(2) Sensible representations can guide the subject only if they are self-conscious.
(3) The subject can only make a sensible representation self-conscious by making a judgment about the manifold of its representation.
This failure of the 2-capacities-reading does not prove that Kant did not himself endorse it. Yet if we cleave to it, we must accept that Kant, who took himself to have resolved the aporia of Empiricism and Rationalism by grasping the unity of spontaneity and receptivity, was fundamentally mistaken about what he accomplished. Rather than resolving the aporia of receptivity and spontaneity, he succeeded only in entangling himself in it more deeply.

V. RECEPTIVITY AND SPONTANEITY AS TWO ASPECTS OF A SINGLE CAPACITY

It is possible to interpret Kant in such a way that he succeeds in resolving the aporia. In order to do so, however, we must place spontaneity and receptivity in a different relation to one another. The 2-capacities-reading cannot explain how sensible intuitions make judgments possible, for its explanation of how intuitions can be self-conscious presupposes that we understand how judgments are possible. The 2-capacities-reading gets stuck in this situation because, according to it, the fact that a finite thinker has sensible intuitions does not, in itself, explain how these intuitions can be self-conscious. For, the 2-capacities-reading says that sensible intuitions do not spring from the same faculty from which concepts and thus self-conscious representations spring. Hence, a further step is needed: the reading must explain how the sensible intuitions in question become self-conscious.

If sensible intuitions are to explain how judgments are possible, then, as the failure of the 2-capacities-reading shows, sensible intuitions *as such* must be able to

guide judgment. Yet they can only do that if they spring from a faculty that is not merely receptive but also spontaneous. For only if it is spontaneous can it issue representations that are unified in one self-consciousness. Now representations that spring from a spontaneous faculty, and which thus are self-conscious, are conceptual. A paradigmatic case of a conceptual representation is a judgment—a representation "executed by the subject itself" (*CPR* B 130). Yet these *self-actuating* (selbsttätigen) representations—judgments—according to Kant's central thesis, are not logically *self-sufficient*. They are possible only if the subject has intuitions that *guide* them. But this requires that these intuitions have conceptual content, for only then are they self-conscious and capable of guiding. But then these representations must spring from *the same faculty* as judgments do. They are, however, in contradistinction to judgments, dependent on the represented object. Only then can they be at the same time both object-dependent and self-conscious.

It follows from this that the faculty, from which self-actuating representations spring, cannot be only spontaneous, but must also be a receptive faculty. It must be a faculty that produces representations by way of being at the same time the source of sensible intuitions that guide these spontaneous representations. The intuitions are sensible because objects cause them. And they guide because their content is conceptual, which explains how they are self-conscious. So sensible intuitions and the judgments they guide have, according to the 2-aspects-reading, the same kind of content, the same "logical form." Kant asserts exactly that in §10:

> The same function which gives unity to the different representations *in a judgment* also gives unity to the mere synthesis of different representations *in an intuition* . . . (*CPR* B 105)

If we take this passage seriously,[10] then receptive and spontaneous representations are not to be distinguished according to the kind of faculty from which they spring. With regard to receptive representations, too, it is the case that "the understanding [thereby] thinks [something] through its concepts" (*CPR* B 36). Receptive representations involve an actualization of the understanding. It is not that sensible intuitions are distinguished from judgments in that the former have non-conceptual content, which the subject first renders self-conscious in an act of the understanding, while the latter are themselves such acts. Rather, sensible intuitions and judgments are distinguished in that, in the case of sensible intuitions, the conceptual content is the result of the object's *acting on* the subject, whereas, in the case of judgments, the conceptual content is the result of the *self-activity* of the subject.

Sensible intuitions are not spontaneous acts. Yet their content is characterized by something by which it can only be characterized because they spring from a faculty that is not only receptive, but also spontaneous: concepts. For only if they spring from a faculty that is also spontaneous can this faculty *explain* the occurrence of *these* intuitions, and only then can these intuitions be understood as something that actualizes *a faculty*. For that, we said above, defines faculties: they explain the acts that fall under them. What makes something *an act of a faculty* is just this:

that it is explained by the relevant faculty. It would therefore be incoherent to grant, on the one hand, that intuitions have conceptual content, while maintaining, on the other hand, that they spring from a different faculty from judgments.[11] Sensible intuitions that guide judgment spring from a faculty that is also spontaneous.

And it is the same with judgments. Judgments are not caused by objects. Yet their content is characterized by something by which it can only be characterized if they spring from a faculty that is not only spontaneous, but also receptive: by dependence on the object. Therefore, only a faculty that is also receptive can explain such judgments. Consequently, receptivity and spontaneity do not characterize two distinct capacities, but are *two aspects of a single capacity*. The 2-capacities-reading understands Kant's thought that both receptive as well as spontaneous representations are necessary for knowledge as saying that *two separate capacities* are necessary for knowledge, which must be actualized together. Neither the actualization of the former, nor the actualization of the latter is, on its own, sufficient to attain knowledge. There is, however, no essential connection between the actualization of the one faculty and the actualization of the other. That someone has a sensible intuition does not entail that she can make judgments on the basis of that intuition. She can only make such a judgment if she first makes a different judgment: a judgment about her sensible intuition. Yet how such a judgment is possible is inexplicable on the 2-capacities-reading, unless we already understand how a judgment made on the basis of sensible intuitions is possible—which is what we initially wanted to explain by means of this judgment.

On the 2-aspects-reading, this is not the case. Kant's thought that both receptive as well as spontaneous representations are necessary for knowledge is to be understood as saying that knowledge is an act of a faculty from which both receptive as well as spontaneous representations spring. The difference between the two readings lies in how they specify the relation between receptive and spontaneous representations: if receptive and spontaneous representations spring from *a single* faculty, then a relation of dependence obtains between the two forms of representation. Above, we attempted to make one of these forms of dependence intelligible: the dependence of judgments upon sensible intuitions. This relation of dependence, as we now see, is only intelligible if a relation of dependence between intuitions and judgments obtains in the other direction: not only do judgments depend upon intuitions, but intuitions likewise depend on judgments. For intuitions make judgments possible only when they have conceptual content. But that means that they must spring from the same faculty from which judgments spring. Thus, those sensible intuitions that explain judgments cannot exist independently of judgments. Only a subject who makes judgments can have those sensible intuitions that are the basis of these judgments.

That sensible intuitions and judgments spring from the same faculty does not mean that, whenever someone has a sensible intuition, she makes the corresponding judgment. Someone can mistakenly believe that her sensible intuition is deceptive. Then she will not believe what she intuits. So there is a sense in which

sensible intuitions are independent of judgments. But that intuitions are in this sense independent of judgment does not mean that they spring from *another* faculty. What prevents someone who has a sensible intuition from making the corresponding judgment is a spontaneous consideration of this intuition, and thus an act that only someone who possesses a spontaneous capacity can perform. That is, one can only understand the independence that obtains between intuitions and judgments in terms of a faculty capable of explaining representations of both kinds. So, that intuitions and judgments are dependent upon one another does not mean that, whenever one intuits, she judges accordingly. It means that a sensible intuition is an act of a capacity, which, if the capacity is exercised properly, guides the subject in its judging. And it means that a judgment is an act of a capacity, which, when the capacity is exercised properly, is guided by a sensible intuition.

The 2-aspects-reading solves the aporia, and that speaks systematically for this reading. Philologically, what speaks in favor of it is that, in the Transcendental Aesthetic, which investigates whether the representations that we "receive" of objects have a specific form, Kant explains that he will "first *isolate* sensibility." The analysis of sensibility that we undertake here rests upon "separating off everything that the understanding thinks through its concepts" (*CPR* B 37). That we must "separate off" the understanding means that it is not separated from the faculty of sensibility. It means that the faculty of sensibility is not a different faculty from the understanding, but rather that sensibility and understanding are one faculty, which one can only pick apart for the purposes of analysis. Thus Kant does not understand this section as the isolation of a faculty—the faculty of sensibility—but rather as an isolation of something that cannot exist in isolation.

VI. KANT'S DISSOLUTION OF SKEPTICISM

I said initially that the two readings of Kant distinguished above are linked to two contrasting accounts of how Kant responds to skepticism. In closing, I would like to make this clear in order to thereby deepen our understanding of the 2-aspects-reading. We can work out this contrast by considering the two readings in relation to Barry Stroud's thesis according to which the skeptical problem is irresolvable. Stroud holds that skeptical doubt is not the result of a particular philosophical argument, but is connected with the idea of philosophy itself. Skepticism is unavoidable in philosophy because it sets in when we want to gain a *philosophical* understanding of our knowledge. So let us examine how Stroud characterizes philosophical deliberations:

> What we seek in the philosophical theory of knowledge is an account that is completely general in several respects. We want to understand how any knowledge at all is possible—how anything we currently accept amounts to knowledge. Or less ambitiously, we want to understand with complete generality how we come to know anything in a certain specified domain.[12]

In philosophy, according to Stroud, we attempt to understand with "complete generality" how we can have knowledge of the world that affects us sensibly. But what does Stroud understand "complete generality" to mean? One could understand it in the following way: that we want to understand our knowledge with "complete generality" means that we seek an understanding of the sources of our knowledge, which does not depend upon the particular contents of our knowledge. Stroud, in contrast, understands "complete generality" as follows: what we are searching for, when we want to understand our knowledge with "complete generality" is, according to Stroud,

> an assessment of all our knowledge of the world at once, and it takes the form of a judgment on that knowledge from what looks like a detached "external" position.[13]

That our aim is a general understanding means, according to Stroud, that we aim to pass judgment upon our knowledge from an external standpoint. And that is supposed to mean that our aim is to find out whether the grounds we *allege* to be grounds for knowledge from within the internal position, within which we commonly accredit ourselves with knowledge of the world, are *in fact* grounds on the basis of which one can know something. The only way to answer this question is to *trace back* our knowledge to grounds which would remain available to us even if it should turn out, in the course of the investigation, that we don't have any knowledge. We must still be able to perform the acts upon which our knowledge of the world rests even if we have no knowledge. Thus, Stroud's idea is that our quest for a philosophical understanding of our knowledge is a quest to ground our knowledge in acts that would still be possible even if we had no knowledge.

Michael Williams has expressed this thought by saying that what one is concerned with in philosophy is seeking a legitimating account of our knowledge of the world, which does not itself imply that we already have such knowledge. Williams writes:

> Only a legitimating account of our beliefs about the world will give an understanding of our knowledge of the world. This means that an account of our knowledge of the world must trace it to something that is *ours*, and that is knowledge, but that is not *knowledge of the world*.[14]

We can understand the 2-capacities-reading of the Kantian distinction between spontaneity and receptivity as an attempt to carry out the project of providing a legitimating account of our knowledge that Stroud sketches. For, the reading's central thought is that knowledge rests upon sensible representations that spring from a faculty that we would *still* have, even if our understanding could not attain knowledge on their basis. The sensible representations that ground our knowledge are, on this reading, *more fundamental* than our knowledge. But our conclusion was that, on the basis of such representations, we cannot explain our knowledge of the world. Skepticism, just as Stroud has it, reveals itself as the result of this position.

The 2-capacities-reading thus corresponds to the dialectic Stroud diagnoses for philosophy as a whole: in a first step it promises to allay skeptical doubt about

our knowledge about the world by seeking a legitimating account of it. In the second step, this attempt reveals itself as doomed to failure, so that the skeptical doubt, instead of being allayed is intensified.

The 2-aspects-reading, on the other hand, undermines the project of providing a legitimating account. It contends that only a subject who has knowledge has those sensible representations that explain our knowledge. Our spontaneous conceptual acts can only be explained through sensible representations when the explanans and explanandum form a unity: the unity of a faculty of knowledge. Thus, in explaining how the conceptual acts that we spontaneously perform are possible, namely by means of sensible representations, which spring from the same faculty as the acts to be explained, we simultaneously explain how knowledge is possible: precisely in virtue of the fact that a subject possesses that faculty. On the 2-aspects-reading, the *ultimate* ground that explains how knowledge is possible, are not sensible *representations*, which are more fundamental than the judgments to be explained, but rather is a *faculty*: that faculty from which both sensible representations and judgments spring, i.e., a faculty of knowledge.

When we ask "how is knowledge possible?" the answer is "through a faculty of knowledge." That is, the idea of knowledge cannot be understood without the idea of a faculty of knowledge. But that is precisely what one who asks for a legitimating account of knowledge wants. She attempts to make knowledge intelligible *without recourse* to the idea of a faculty of knowledge. If a single act of knowledge can be explained by nothing other than a faculty of knowledge, and there is thus *nothing more fundamental* than this faculty itself, then this means that the idea of a legitimating account rests upon a misunderstanding of the nature of knowledge. The idea that we need a legitimating account is not an idea of something that, regrettably, we cannot have, wherefore we are doomed to fail in philosophy. Rather it is an idea that one can have only if one contests the fact that knowledge has its basis in a faculty of knowledge. The thought that a faculty of knowledge is the *ultimate* explanation of knowledge rests upon the insight that this *cannot* be meaningfully contested. It is thus an idea that one can only *appear* to have.

Now Stroud believes that such an answer cannot remove the skeptical doubt. If someone could show that the idea of a legitimating account of knowledge was incoherent and thereby show that we must instead explain knowledge in a way that rejects this idea, we must nonetheless be dissatisfied:

> [W]e should not think that if and when we come to see how and why the epistemological enterprise is not fully valid, or perhaps not even fully coherent, we will then possess a satisfactory explanation of how human knowledge in general is possible. We will have seen, at best, that we cannot have any such thing. And that too, I believe, will leave us dissatisfied.[15]

According to Stroud the 2-aspects-reading leaves us in the following situation: admittedly, we understand how we can have knowledge, yet we do not have the sort of understanding that we sought. But that is wrong. What we recognize by means of the 2-aspects-reading is that what we sought was nothing at all.

NOTES

1. I. Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (New York: St. Martin's Press, 2003).
2. In a few places, Kant also uses the concept of knowledge in such a way that it does not imply the truth of what is known, so that one can also sensibly speak of "false knowledge" (cf. *CPR* B 83, for example). Yet this is not the fundamental use of the word. Most uses—in particular those in which he describes the understanding as a faculty of knowledge—only make sense if one understands 'knowledge' to mean 'true representation'. On the idea of "false knowledge" in Kant, see W. Becker, *Selbstbewusstsein und Erfahrung* (Freiburg: Karl Alber Verlag, 1984), 47, and also R. Aschenberg, *Sprachanalyse und Transzendentalphilosophie* (Stuttgart: Klett-Cotta, 1982), 44.
3. A debate has arisen in the literature about whether the fundamental property of intuitions consists in their singularity or their immediacy. On this, see J. Hintikka, "On Kant's Notion of Intuition (Anschauung)," in T. Penelhum and J. J. MacIntosh (eds.), *The First Critique* (Belmont: Wadsworth, 1969), 38–53; M. Thompson, "Singular Terms and Intuitions in Kant's Epistemology," *Review of Metaphysics* 26 (1972); A. Kelly, "Intuition and Immediacy in Kant's *Critique of Pure Reason*," *Journal of Philosophical Research* 22 (1997). S. Heßbrüggen-Walter holds that singularity and immediacy belong to two different levels: from the perspective of general logic, singularity belongs to intuitions; the immediacy of intuitions, on the other hand, can only be justified from a transcendental-philosophical perspective. See S. Heßbrüggen-Walter, *Die Seele und ihre Vermögen: Kants Metaphysik des Mentalen in der 'Kritik der reinen Vernunft'* (Paderborn: Mentis Verlag, 2004), 204.
4. I. Kant, *Prolegomena*, § 8, trans. Gary Hatfield, in *Theoretical Philosophy after 1781,* ed. Henry Allison and Peter Heath (New York: Cambridge University Press, 2002), 78, 4:282.
5. That the original understanding does not need a "special" act of synthesis in order to have a self-conscious representation of a given manifold (as its self-conscious representation of a manifold is the origin of the existence of that manifold) does not mean that the original understanding is not a faculty of combination, in keeping with Kant's most general characterization of the understanding. Even the original understanding is a faculty of combination precisely because it too represents a manifold. Wherever there is representation of a manifold there must be a faculty for combining this manifold into the unity of self-consciousness, if there is to be a self-conscious representation of this manifold. The peculiarity of the original understanding, as I understand it, does not consist in the fact that it is not a faculty of combination, but rather in the fact that it is a *productive* faculty of combination—i.e., that it combines a manifold into the unity of self-consciousness precisely by *producing* that manifold. It follows that an original understanding does not need a "special" act of combination of the manifold—in the sense of a *further* act in addition to the one by which the manifold is given—in order to have a self-conscious representation of that manifold.
6. See, among others, *What real progress has Metaphysics made in Germany since the time of Leibniz and Wolff?* in *Theoretical Philosophy after 1781*.
7. On capacities in general, see A. Kern, *Quellen des Wissens. Zum Begriff vernünftiger Erkenntnisfähigkeiten* (Frankfurt am Main: Suhrkamp Verlag, 2006), 184–212.
8. Compare exemplary proponents of this view: P. F. Strawson, *The Bounds of Sense: An Essay on Kant's 'Critique of Pure Reason'* (London: Routledge, 1966); R. Pippin, *Kant's Theory of Form* (New Haven: Yale University Press, 1982), esp. 26–54, 216ff., as well as "Kant on the Spontaneity of the Mind," in R. Pippin, *Idealism as Modernism* (Cambridge: Cambridge University Press, 1997); M. Heidegger, *Kant and the Problem of Metaphysics,* trans. Richard Taft (Bloomington: Indiana University Press, 1997); and M. Heidegger, *Phenomenological Interpretation of Kant's "Critique of Pure Reason,"* trans. Parvis Emad and Kennneth Maly (Bloomington: Indiana University Press, 1997); G. Mohr, *Das sinnliche Ich: Innerer Sinn und Bewußtsein bei Kant* (Würzburg: Königshausen & Neumann, 1991), 98f.
9. P. F. Strawson, *The Bounds of Sense*, 97.
10. Compare with this reading in particular J. McDowell, "Having the World in View: Sellars, Kant and Intentionality," in *Journal of Philosophy* 95 (1998).
11. That is, in my estimation, John McDowell's position. In *Mind and World* (Cambridge: Harvard University Press, 1996) as well as in "Having the World in View: Sellars, Kant and Intentionality,"

John McDowell develops a position that stands somewhere between the 2-capacities and the 2-aspects readings. On the one hand, he would like to say that understanding and sensibility are not logically separable from each other, yet, at the same time, he would like to say that they are two distinct capacities. I take this position to be inconsistent, for it cannot account for the thought that capacities explain their acts. If the understanding is a faculty different from the sensibility, then sensibility cannot explain how sensible intuitions with conceptual content are possible. On this point, cf. P. C. Long, "Two Powers, One Ability: The Understanding and Imagination in Kant's Critical Philosophy," in *Southern Journal of Philosophy* 36 (1998). P. Kitcher, by contrast, does not recommend a "middle path," but is rather of the opinion that the Kantian text allows for both readings; see "Kant's Philosophy of Cognitive Mind," in P. Guyer (ed.), *The Cambridge Companion to Kant and Modern Philosophy* (New York: Cambridge University Press, 2006).

12. B. Stroud, "Understanding Human Knowledge in General," in M. Clay and K. Lehrer (eds.), *Knowledge and Skepticism* (Boulder: Westview, 1989), 32.
13. B. Stroud, *The Significance of Philosophical Scepticism* (Oxford: Oxford University Press, 1984), 209.
14. M. Williams, "Epistemological Realism and the Basis of Scepticism," in M. Williams (ed.), *Scepticism* (Brookfield/Aldershot: Darmouth Publishing Company, 1993), 246. It is interesting to see that Williams, who characterizes Stroud's position here, nowhere considers whether such a project even *makes sense*. See also M. Williams, *Unnatural Doubts, Epistemological Realism and the Basis of Scepticism* (Princeton, N.J.: Princeton University Press, 1996), 92. For this reason, Williams can also believe that this is the strongest argument for skeptical doubt in M. Williams, *Problems of Knowledge* (Oxford: Oxford University Press, 1991), 61.
15. B. Stroud, "Understanding Human Knowledge in General," 49; for more on Stroud's skepticism about transcendental arguments, see his paper "Transcendental Arguments," in B. Stroud, *Understanding Human Knowledge* (Oxford: Oxford University Press, 2000), and "Kant and Skepticism," in M. Burnyeat (ed.), *The Skeptical Tradition* (Berkeley/Los Angeles: University of California Press, 1983). For my critique of Stroud's understanding of the Kantian position and its relation to skepticism, cf. A. Kern, "Philosophie und Skepsis. Hume–Kant–Cavell," in *Deutsche Zeitschrift für Philosophie* 48 (2000), esp. 28–35.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Logicist Responses to Kant: (Early) Frege and (Early) Russell

Michael Kremer
University of Chicago

The "textbook" account of the movement in the philosophy of mathematics called "logicism" is summed up in the title of chapter 9 of Raymond Wilder's *Introduction to the Foundations of Mathematics*: "The Frege-Russell Thesis: Mathematics an Extension of Logic" (Wilder 1965, 219). In "The Logicist Foundations of Mathematics," Rudolf Carnap spells out the view implicit in this title (Carnap 1931, 91; for other examples, see Irvine 1996 and Richter 2004, 113):

> *Logicism* is the thesis that mathematics is reducible to logic, hence nothing but a part of logic. Frege was the first to espouse this view (1884). In their great work, *Principia Mathematica*, the English mathematicians A. N. Whitehead and B. Russell produced a systematization of logic from which they constructed mathematics.

According to this kind of story, Russell (and Whitehead) and Frege were engaged in a common project, called "logicism," the defense of the view that "mathematics is reducible to logic"; this view, and the project of defending it, underwent development but remained essentially and recognizably the same from Frege's *Foundations of Arithmetic* (1884) to Russell and Whitehead's *Principia* (1910). Howard Stein, in the entry for "logicism" in the *Routledge Encyclopedia of Philosophy*, sounds a note of caution about such textbook tales of the origin of logicism, however (Stein 1998):

> Although the thesis that arithmetic is a part of logic was stated quite explicitly by Frege . . . and by Russell . . .,it is surprisingly difficult to determine the exact content of this thesis; and, indeed, to determine whether it should be understood to mean the same thing to each of them. For the obvious question presents itself: exactly what are we to understand by "logic"?

Moreover, Stein points out, on the epistemological question of the grounding of our knowledge of logic itself,

> Frege and Russell appear to disagree sharply. Both regard the thesis as being in opposition to Kant; but whereas Frege, in denying that arithmetic is based upon any Kantian "pure intuition" and maintaining that it is entirely grounded in logic, concludes that Kant was wrong to consider arithmetical propositions synthetic, and holds by contrast that, as propositions of logic, they are analytic, . . . Russell denies the latter, and holds that logic itself is synthetic in character.

Stein concludes:

> Yet even here the issue is not so clearly drawn; for one must still ask whether Frege, in affirming that logic is analytic and not synthetic, and Russell, in affirming the opposite, understood the words "analytic" and "synthetic" in the same way.

In this paper I aim to pursue these questions of Stein's, focusing on the versions of logicism presented in Frege's and Russell's *early* works, *The Foundations of Arithmetic* (1884) and *The Principles of Mathematics* (1903). I will argue that, in these works, Frege's and Russell's conceptions of analyticity, syntheticity, and logic itself are sufficiently different to put into question the idea that these philosophers are really engaged in a common project which it is useful to put under one heading, "logicism."[1]

To begin with, Frege recognizes and accepts the importance of Kant's threefold distinction of truths into analytic, synthetic a posteriori, and synthetic a priori; and he accepts Kant's classification of geometry as synthetic a priori. Thus Frege's logicism extends to arithmetic (including under this heading real analysis) but not to geometry; Frege does not hold that all of mathematics is reducible to logic (hence his title, *The Foundations of ARITHMETIC*). On the other hand, as we shall see, Russell rejects the intelligibility of any contentful analytic/synthetic distinction, other than that between bare identities (A is A) and other truths. He therefore treats geometry as not interestingly distinct from arithmetic in this respect, and maintains that *all* of mathematics is reducible to logic (hence his title, *The Principles of MATHEMATICS*). Thus Frege's and Russell's different reactions to Kant reveal very different attitudes to the *question* Kant posed about the synthetic a priori status of mathematics. To clarify all this, I will first discuss the treatment of the analytic/synthetic distinction in Kant, Frege, and Russell, and the application of this distinction to logic and mathematics. I will then take up the differing views of conceptual analysis, and of the role of logic therein, held by Frege and Russell. I will argue that

(early) Frege and (early) Russell have different underlying conceptions of logic, so that, as Stein suggests, their "logicisms" are not really versions of the same project.[2]

I. KANT ON THE ANALYTIC/SYNTHETIC DISTINCTION

Kant famously argues in the first *Critique* and in the *Prolegomena* that mathematics is synthetic a priori, and claims in the *Prolegomena* that if Hume had recognized the synthetic a priori status of mathematics, he would not have been so skeptical of the possibility of metaphysics, which must have the same status (*CPR*, B14–B17; *PFM*, 18–20).[3] Yet Kant himself appears to draw the crucial distinction between analytic and synthetic judgments in at least three ways, which do not obviously cohere with one another:

(A) the concept-containment distinction: in an analytic judgment, the subject concept contains the predicate concept; in a synthetic judgment, the subject concept is linked to the predicate concept, but not by containing it. In the *Critique of Pure Reason*, this is given as the official explanation and (B) and (C) come in as further explanations (*CPR*, A6/B10–A10/B14).

(B) the explicative/ampliative distinction: the analytic/synthetic distinction concerns the content of our judgments, not their origin. Synthetic judgments are ampliative and extend our knowledge; analytic judgments are merely explicative and do nothing but make explicit conceptual connections, which are already implicit in our grasp of concepts. In the *Prolegomena*, the distinction is introduced in this way, and (A) and (C) are then brought in as further explanations (*PFM*, 16–18).

(C) a distinction between the *principles* of analytic and synthetic judgments: both the *Critique* and the *Prolegomena* tell us that analytic judgments are based on the principle of contradiction, whereas synthetic judgments require some other principle, which the *Critique* eventually reveals to be that "every object stands under the necessary conditions of the synthetic unity of the manifold of intuition in a possible experience" (*CPR*, A158/B197). In the *Logic*, the analytic/synthetic distinction is introduced in similar terms: "Propositions whose certainty rests on *identity* of concepts (of the predicate with the notion of the subject) are called *analytic* propositions. Propositions whose truth is not grounded on identity of concepts must be called *synthetic*" (*LL*, 606). The subsequent discussion mentions neither (A) nor (B) explicitly but provides an example suggestive of (A) and a distinction similar to (though interestingly different from) (B) (*LL,* 606–7):

> An example of an *analytic* proposition is, To everything *x*, to which the concept of body (*a* + *b*) belongs, belongs also *extension* (*b*). An example of a *synthetic* proposition is, To everything *x*, to which the concept of body (*a* + *b*) belongs, belongs also *attraction* (*c*). Synthetic propositions increase cognition *materialiter* [materially], analytic ones merely *formaliter* [formally].

Kant seems to have thought of these three distinctions (A)–(C) as interchangeable; when he employs one of them to explain the analytic/synthetic distinction he typically introduces the other two as if they were consequences of his explanation. In order to appreciate the unity of these three distinctions in Kant's thought, it will be useful to briefly review some relevant points from his *Logic*.

In the *Logic*, Kant distinguishes between concepts, as general representations, and intuitions, as singular representations. Concepts are arranged in a hierarchy of "containment." For example, the concept "animal" is contained *in* the concept "mammal" which is in turn contained *in* the concept "whale" (*LL*, 593–95). We can understand containment here as a matter of necessary implication (what is implied is what is "folded into" a given concept, so what is contained in it); we can also understand containment in terms of the metaphor of analysis of a whole into its component parts, where the parts are linked logically by conjunction (so *whale* = *mammal* + *animal* + . . . as in the passage from the *Logic* quoted above). The *content* of a given concept is composed of all the concepts contained *in* the given concept (*LL*, 593).

Kant applies this notion of content not only to concepts, but also to cognitions in general. Thus, he speaks of the content of a cognition as a matter of its "richness or . . . logical importance and fruitfulness . . . as ground of many and great consequences," and he speaks of the extension of a cognition as its "multitude and manifoldness" (*LL*, 549–50). If we apply this notion to judgments, in particular, we will find that the content of a judgment is a matter of its consequences, of what follows from it.

Kant's account of judgment itself is "the representation of the unity of the consciousness of various representations" (*LL*, 597); judgment links representations together and represents them as in some sense belonging together. Kant's paradigm of judgment is the categorical judgment in which two concepts are so linked; however, he officially recognizes other forms of judgment as well, in particular hypothetical and disjunctive judgments, in which other judgments are the representations which are represented as linked to one another. Still, explanation (A) of the analytic/synthetic distinction in terms of the containment of the predicate concept in the subject concept applies directly only to categorical judgments. While one could fairly easily extend this explanation to hypothetical judgments (a hypothetical judgment is analytic if the antecedent "contains" the consequent) it is not so immediately obvious that it can be extended to disjunctive judgments, let alone to the myriad other forms of judgment which modern logic has taught us to recognize. Hence one is motivated to look to Kant's other explanations of the analytic/synthetic distinction, (B) and (C), for a version of the distinction, which can apply to judgments more generally. We thus have two candidate general versions of the analytic/synthetic distinction, one of which (B) looks to the content, or consequences, of a judgment, the other (C) to its grounds, or principles.

Kant clearly held, however, that these two versions of the analytic/synthetic distinction amount to the same thing. The basis for this equivalence, I suggest, lies in

the Leibnizian assumption that the paradigm of a judgment is the categorical judgment, and the corresponding centrality of the concept-containment version (A) of the distinction. This version of the distinction, in other words, can serve as the link, which unites the other two, ostensibly more general versions.

Thus suppose that we are concerned with a categorical judgment of the general form *S* is *P*.[4] This is analytic, according to (A), if the concept *S* contains the concept *P*, and it is synthetic, according to (A), if the relationship between *S* and *P* is not one of containment. Consider this distinction first from the side of the consequences/content of the judgment. If the judgment is analytic, then it merely records explicitly the relation of containment, which obtains between *S* and *P*. This relation, however, is already built into the very concepts *S* and *P* themselves. The judgment that *S* is *P*, which relates these two concepts as subject and predicate, presupposes these two concepts and hence also the relation of containment between them. In grasping these concepts, as we must if we are to make the judgment, we must already have an at least implicit grasp of this relationship between them. Therefore, the analytic judgment is merely explicative—it does nothing but bring out explicitly what is already implicitly known in grasping the concepts *S* and *P*. On the other hand, if the judgment is synthetic, then the relationship between *S* and *P* is not one of containment, and is not built into the very concepts *S* and *P* themselves. Hence the judgment that *S* is *P* does not presuppose any relation between the two concepts *S* and *P*, and it is possible to grasp these concepts without even implicitly grasping the connection between them. One can formulate the question "Is *S P*?" and the answer will not be forthcoming merely on the basis of one's grasp of the concepts *S* and *P*. Hence the judgment that *S* is *P* genuinely extends our knowledge and is ampliative.

Next consider the distinction drawn under (A) from the point of view of the principles, which might underlie and justify the judgment that *S* is *P*. Again, suppose first that the judgment is analytic. Then suppose one were to deny the judgment; this would entail the compatibility of the concepts *S* and *not-P*. But since the concept *S* contains *P* as a part, this would further entail the compatibility of the concepts *P* and *not-P*, which is clearly a contradiction. Hence, the judgment would be justified on the basis of the principle of noncontradiction. Alternatively, the identity of the concept *P* with a part of the concept *S* grounds the judgment. On the other hand, suppose that the judgment is synthetic. Then *S* does not contain *P*, *P* is not identical to any part of *S*, and the link between them needs to be established in some other way. Kant holds that this "other way" must ultimately involve *intuition*, that is, the representation of a single object in which the concepts *S* and *P* are linked. Hence the principle of all synthetic judgments involves the conditions for the unity of the manifold of intuition in an experience of objects.

These considerations show why Kant could suppose that his three characterizations of the analytic/synthetic distinction are equivalent to one another. However, these arguments depend quite clearly on the treatment of categorical judgments as the paradigm of all judgments, and on the assumption of the primacy of

Aristotelian logic that goes along with this. With this background in mind, we now turn to Frege.

II. FREGE

In section 3 of the *Foundations of Arithmetic*, Frege takes up Kant's analytic/synthetic distinction. He states that the distinction concerns "not the content of the judgment but the justification for making the judgment." He adds in a footnote that "I do not mean to assign a new sense to these terms, but only to state accurately what earlier writers, Kant in particular, have meant by them" (*FA*, 3). Yet Frege's remarks here seem to fly in the face of Kant's claim in the *Prolegomena* that the analytic/synthetic distinction concerns not the *origin*, but the *content* of the judgment.

In trying to understand what he is doing here, it is helpful to recall that, from his earliest published works, Frege showed an interest in Kant's claim that mathematical knowledge was synthetic a priori and *hence* required support from pure intuition. Frege opens his 1873 doctoral dissertation with the statement that "the whole of geometry rests ultimately on axioms which derive their validity from the nature of our intuitive faculty" (*CP*, 1). He remarks in the first paragraph of his dissertation for the *Venia Docendi* of 1874 (*CP*, 56–57):

> a concept as comprehensive and abstract as the concept of quantity cannot be an intuition. There is accordingly a noteworthy difference between geometry and arithmetic in the way in which their fundamental principles are grounded. The elements of all geometrical constructions are intuitions, and geometry refers to intuition as the source of its axioms. Since the object of arithmetic does not have an intuitive character, its fundamental propositions cannot stem from intuition either.

These comments already prefigure Frege's later argument in the *Foundations* for the logical character of the truths of arithmetic, based on their universal applicability, "governing the widest domain of all," so that "denying any one of them" leads to "complete confusion" (*FA*, 21; CP, 112).[5]

In the preface to his pioneering logical work, the *Begriffsschrift* of 1879, Frege sets out as his ultimate goal the project of determining the epistemological status of arithmetical truths—investigating whether they could be proved on the basis of logical laws alone, or needed support from some other quarter, such as Kantian pure intuition. In order to answer this question, Frege saw it as necessary to construct a new logical system in which all proofs could be carried out so as to avoid all "gaps" and to display explicitly all presuppositions and assumptions employed. In devising this logical notation, Frege tells us, he tried to express only that which is relevant to inference, which he called "conceptual content" (*CN*, 104). In paragraph 3 of *Begriffsschrift*, Frege explains this notion through an example: "At Plataea the Greeks defeated the Persians" and "At Plataea the Persians were defeated by the

Greeks" have the same conceptual content, since "the consequences which can be derived from the first judgment combined with certain others can always be derived from the second judgment combined with the same others [and vice-versa]" (*CN*, 112). Here, Frege is simply following Kant's lead in the *Logic*: content is a matter of what is *implied* by or *contained in* a given claim, as "the ground of many and great consequences."

Now the question that Frege posed in the preface to the *Begriffsschrift* concerning the source of our knowledge of arithmetic is answered in *Foundations* by arguing that arithmetical truths are deducible from logical principles along with definitions of basic arithmetical concepts in logical terms. This, of course, marks Frege's basic disagreement with Kant, and as Frege himself notes, this disagreement amounts to a disagreement over whether logic is epistemically sterile, or can extend our knowledge. For Frege, not only is logic, through its development in mathematics, ampliative, it also gives us special access to *objects* which are given to us independent of even the forms of our sensibility, the numbers. Frege thus sees logic as having a genuine *content*. Of course, Frege is able to make this sort of claim for logic in part because he has a broader conception of logic, and especially of the fundamental logical forms of judgment, one which allows him to jettison Kant's concept-containment account (A) of the analytic/synthetic distinction as too narrow. Having rejected this account of the distinction, he is left with (B) and (C) as versions of the distinction, but no longer has the crucial link between the two that might convince him of their equivalence. Absent further argument, it is possible that there be judgments which are founded on the principle of contradiction—such that to deny them, is in effect, to contradict oneself—and which are nonetheless ampliative.

Frege chose to mark this disagreement with Kant using Kant's own "analytic/synthetic" terminology. Given a desire to draw a distinction between analytic and synthetic judgments, then, it seems Frege had to choose between the version (B) of the distinction, which focuses on the content/consequences of a judgment, and the version (C), which focuses on the principles underlying/justifying the judgment. Frege's interest in the question of the sources of arithmetical knowledge, and especially in the question of the role of intuition in mathematical knowledge, fits naturally with his choice of (C), again following Kant's lead in the *Logic*: "The problem becomes . . . that of finding the proof of the proposition, and of following it right back up to the primitive truths. If, in carrying out this process, we came only on general logical laws and on definitions, then the truth is an analytic one. . . . If, however, it is impossible to give the proof without making use of truths which are not of a general logical nature, but belong to the sphere of some special science, then the proposition is a synthetic one" (*FA*, 3). Here, given that the proof of an analytic judgment depends merely on logic and definitions, there is a tolerably clear sense in which to deny such a judgment would be to contradict oneself; on the other hand, insofar as a synthetic judgment requires for its justification principles beyond those of logic (and definitions) clearly the justification must appeal to some principle other

than that of contradiction. Abstractly, however, it seems equally possible to choose (B) instead, in line with Kant's *Prolegomena* claim that the distinction concerns the *content* of the judgment. Frege's disagreement with Kant could then have been expressed by claiming that logic is synthetic (that is, ampliative).[6] Are there any deeper reasons for Frege's choice of (C)? And could they help to explain why he claims that this choice corresponds to what *Kant* intended?

A simple—as we will eventually see, overly simple—explanation for Frege's choice of (C) derives from his desire to retain agreement with Kant on the view that there was an interesting contrast to be drawn between analytic and synthetic judgments. Frege took Kant to have made an important and correct point in dividing judgments into the three classes of analytic, synthetic a posteriori, and synthetic a priori, and claimed to accept Kant's claims that *geometry* ought to be classed as synthetic a priori, and that the possibility of geometrical knowledge depends on a source of knowledge which can be called our pure intuition of space (*FA*, 101–2). Frege's disagreement with Kant here was only over the epistemological location of arithmetic, not over the importance of the category of the synthetic a priori itself.

Now, if Frege had decided to adopt (B) as his way of drawing a more generally applicable analytic/synthetic distinction, he would seem to have deprived himself of any way of marking his more general agreement with Kant on the importance of the analytic/synthetic distinction. For if "analytic" means "merely explicative" and "synthetic" means "ampliative," then we would seem to lose room for a distinctive category of the synthetic a priori into which to place geometry, as opposed to arithmetic. For logic itself has turned out to generate genuine content in the form of arithmetic, and so is ampliative. Hence geometry, arithmetic, and logic itself would all equally count as synthetic.

III. RUSSELL

Russell seems to draw this very conclusion in *Principles*, writing: "Kant never doubted for a moment that the propositions of logic are analytic, whereas he rightly perceived that those of mathematics are synthetic. It has since appeared that logic is just as synthetic as other kinds of truth; but this is a purely philosophical question, which I shall here pass by" (*PM*, 457).[7] It seems that there is again a very easy explanation of what Russell is doing here; he is simply adopting alternative (B) of the possible understandings of the analytic/synthetic distinction mentioned above, and then inferring from the ampliative nature of logic, as exhibited in the derivation of mathematics from logic, to the syntheticity of logic.

This interpretation is bolstered by the fact that Russell claims in *Principles* that *all* of mathematics is derivable from logic, including geometry. Thus, Russell had no need to make room, as Frege did, for an interesting class of the synthetic a priori into which to fit geometry as opposed to arithmetic, and so there was no obstacle to his

taking the analytic/synthetic distinction, as Kant claimed in the *Prolegomena*, as having to do with the *content* of the judgment, in line with (B).

However, Russell drew from this the radical conclusion that no interesting distinction is marked by that between analytic and synthetic judgments at all. "Logic is just as synthetic as other kinds of truth" at least *suggests* that *all* truths are synthetic. In his *Philosophy of Leibniz* (1898), to which Russell, in *Principles*, refers in a footnote for further discussion of the analytic/synthetic distinction, he writes that supposed instances of analytic judgments are either "easily seen to be not truly analytic" or "are tautologous, and so not properly propositions at all" (*PL*, 16–17). By "tautologous" here Russell means propositions of the form "A is A," bare identities—a usage which goes back to Kant's *Logic*. Kant writes that "the identity of the concepts in analytic judgments can be either *explicit* . . . or *non-explicit*. . . . In the first case the analytic propositions are *tautological*." He adds that "Tautological propositions are empty *virtualiter*, or *empty of consequences*, for they are without value or use. The tautological proposition *Man is man*, is of this sort, for example" (*LL*, 607). The contrast here is with nontautological analytic propositions, which are devoid of content in the sense of not *really* extending our knowledge but which are "not empty of consequences or fruitless for they make clear the predicate that lay undeveloped . . . in the concept of the subject through *development*." Kant allows that such propositions "increase cognition *formaliter*" but not "*materialiter*" so that we could say that nontautological analytic propositions are "empty *materialiter*" but not "empty *virtualiter*." Russell's claim is that Kant's supposed contrast between tautological and nontautological *analytic* propositions is void—even the nontautological propositions of logic are synthetic.

Thus we seem to have a simple explanation of the divergences between Russell and Frege in their responses to Kant. However, while simplicity is a virtue, we must also be wary of oversimplification in the history of philosophy. And indeed, on closer examination, we will find that the above sketch does present too simplistic a view of the relationship of Kant, Frege, and Russell's views on the analytic/synthetic distinction.

To begin with, the appearance of a disagreement concerning the status of geometry, between Kant and Frege on the one hand, and Russell on the other, is exaggerated. For, Russell's claim that "all Mathematics is Symbolic Logic," where "Mathematics includes not only Arithmetic and Analysis, but also Geometry, Euclidean and non-Euclidean, rational Dynamics, and an infinite number of other studies still unborn or in their infancy" (*PM*, 4–5) depends on his explanation of "pure mathematics" as "the class of all propositions of the form '*p* implies *q*,' where *p* and *q* are propositions containing one or more variables, and neither *p* nor *q* contains any constants except logical constants" (*PM*, 3). This "if-then-ism" is adopted by Russell in part to get around the fact that "the actual propositions of Euclid . . . do not follow from the principles of logic alone," a fact which he says "led Kant to his innovations in the theory of knowledge" (*PM*, 5). Russell's definition of pure mathematics, however, rules the "actual propositions of Euclid" outside the boundaries

of pure mathematics, so that "in pure mathematics, the Euclidean and non-Euclidean geometries are equally true: in each nothing is affirmed except implications" (*PM*, 5). On this score, Frege would quite happily concede that Euclidean and non-Euclidean geometries *so* understood are equally logically true. But he would further claim that Euclidean geometry, understood as consisting in (roughly) the "actual propositions of Euclid" is *also* known to be *true*, but not on the basis of logic.

But this is only the beginning of the story. To get a better understanding of the real roots of Russell's claim that logic is synthetic, we need to turn to a more careful look at the passages from the *Philosophy of Leibniz* in which he discusses the analytic/synthetic distinction. What will emerge is that Russell is concerned with the way in which analytic judgments are said to rest on the *analysis* of concepts, whereas synthetic judgments depend on a synthesis. Russell's argument will be that *all* propositions except bare tautologies depend on a synthesis in the formation of concepts, and so are synthetic. I will argue that an examination of this argument shows that Russell's attitude toward the role of logic in the analysis of concepts is quite different from Frege's. As a result, I will conclude, it is misleading to think of Frege and Russell as engaged in a common project, "logicism," in their two early works; for their conceptions of logic itself are importantly different.

Russell's discussion of the analytic/synthetic distinction in the *Philosophy of Leibniz* occurs in section 11. It takes place against the background presupposition that all judgments are ultimately of subject-predicate form, a view that Russell attributes to Leibniz and discusses critically in section 10. While Russell clearly rejects such a view in *Principles*, it is noteworthy that he there provides no discussion of the analytic/synthetic distinction suited to this rejection, merely referring the reader to his earlier treatment. In this treatment he begins by criticizing what he takes to be Leibniz's understanding of the distinction, arguing that Kant correctly took arithmetic and geometry to be synthetic; but he ends by concluding that "the doctrine of analytic propositions seems wholly mistaken" and that even such seemingly analytic propositions as "the equilateral rectangle is a rectangle" are synthetic rather than analytic (*PL*, 22–23). He employs a number of arguments to this conclusion, but all have, I think, the same basic structure: the thought is that an analytic judgment *S* is *P* must be based on an *analysis* of the subject-concept *S* which reveals that the predicate-concept *P* is contained in it; but this analysis presupposes a prior *synthesis* in which the concept *S* is assembled out of its various parts, including *P*. Consequently, Russell concludes, the judgment *S* is *P* is not purely analytic, but really at bottom involves or depends on synthetic judgments. This basic argument has a vaguely Kantian ring; one is reminded of Kant's claim in the B-deduction that "the dissolution (*analysis*) that seems to be its [synthesis's] opposite, in fact always presupposes it; for where the understanding has not previously combined anything, neither can it dissolve anything, for only *through it* can something have been given to the power of representation as combined" (*CPR*, B130).[8]

Russell's first version of this argument begins by claiming that in any analytic judgment *S* is *P*, the subject-concept *S* must be "a complex idea, *i.e.* a collection of attributes, while the predicate is some part of this collection." He then goes on to argue that "the collection, however,—and this is the weak point of the doctrine of analytic judgments—must not be any haphazard collection, but a collection of compatible or jointly predicable predicates. . . . Now this compatibility, since it is presupposed by the analytic judgment, cannot itself be analytic" (*PL*, 18). Here Russell is assuming that the subject in an analytic judgment must at least be a *possible* predicate of some individuals, and thus the analytic judgment presupposes the synthetic judgment that the predicates combined in the subject-concept are compatible.

Russell then turns to a version of the argument couched in terms of *definition*. He claims that "definition . . . is only possible in respect of complex ideas" and "consists, broadly speaking, in the analysis of complex ideas into their simple constituents." He then argues that this account of definition "is inconsistent with the doctrine that the 'primary principles' are identical or analytic; and that the former is correct, while the latter is erroneous." His argument turns on the Leibnizian claim that "the objects of definitions must be shown to be *possible*." Thus "there is always involved, in definition, the synthetic proposition that the simple constituents are compatible" (*PL*, 18–19). Simple ideas, in and of themselves, and without presupposing synthetic relations of compatibility and incompatibility, are never contradictory, Russell claims, and so "we may argue generally, from the mere statement of the Law of Contradiction, that no proposition can follow from it alone, except the proposition that there is truth, or that some proposition is true" (*PL*, 20).

Russell's claim in these arguments that the relation of compatibility between concepts is a "synthetic relation" is interestingly related to a claim made in the *Principles*, that the relation of implication between propositions is also synthetic: implication is, after all, essentially the opposite of compatibility (*A* implies *B* just in case *A* is incompatible with *not-B*). Russell writes that "implication is a synthetic relation," explaining that while "if *A* be an aggregate of propositions, *A* implies any proposition which is a part of *A*, it by no means follows that any proposition which *A* implies is part of *A*" (*PM*, 349). James Levine, in an interesting discussion of Russell and Frege's conceptions of analysis, cites this passage as providing the explanation of Russell's claim that logic is synthetic (Levine 2002, 215–16). This passage, however, leaves open the possibility of at least some analytic judgments that are other than bare identities, such as "the equilateral rectangle is a rectangle," and therefore also leaves open the possibility of some logical principles being analytic, namely at least such principles as "*A* and *B* implies *A*." This possibility is ruled out by the final argument of section 11 of *The Philosophy of Leibniz*.

This final and most general form of the argument occurs in the concluding paragraph of section 11. Russell there concludes: "even those propositions which, at the beginning of the enquiry, we took as the type of analytic propositions, such as 'the equilateral rectangle is a rectangle,' are not wholly analytic." Not only do they

presuppose "synthetic propositions asserting that the constituents of the subject are compatible," in and of themselves "they are judgments of whole and part." Thus, "the constituents, in the subject, have a certain kind of unity—the kind always involved in numeration, or in assertions of a whole—which is taken away by analysis. Thus even here, in so far as the subject is *one*, the judgment does not follow from the Law of Contradiction alone" (*PL*, 22–23).

Two points are notable about this Russellian argument, which, as I have pointed out, is the only reference directly given by Russell in *Principles* for the justification of the claim that "logic, like other kinds of truth, is synthetic." First, it does *not* turn on a conception of the analytic/synthetic distinction as the ampliative/explicative distinction. Rather it turns on considerations of the processes of analysis and synthesis that would justify such judgments and involves the argument that in all but bare tautologous self-identities synthesis is presupposed. Second, it remains wedded to a building-block picture of concepts in which simple concepts are *combined* with one another by Boolean logical operations and then taken back apart by analysis. *Here* we encounter the real deep and abiding difference between the early Russell and the early Frege's conceptions of the power of the new logic.

IV. CONCEPTS, JUDGMENTS, AND ANALYSIS IN FREGE AND RUSSELL

Earlier, I suggested an explanation of Frege's choice of version (C) of the analytic/synthetic distinction as required to secure logical space for recording his agreement with Kant on the synthetic a priori status of geometry. However, a deeper reason for Frege's choice of (C) reveals itself if, following out our discussion of Russell, we think of the classification of judgments into "analytic" and "synthetic" as dependent on distinct forms of justification of the judgments so classified, labeled "analysis" and "synthesis" respectively. If we focus on analytic judgments in particular, it is important to realize that Frege's new logic made possible a new form of conceptual analysis.[9]

Frege does not himself speak directly of the "analysis" (*Zerlegung*) of concepts very often;[10] he prefers to speak of the "formation" (*Bildung*) of concepts. However, this *Bildung* of concepts should not be thought of as a *psychological* process through which concepts are generated. Rather, it can be understood as the perspicuous representation of concepts, in the sense in which a *Bild* is a picture or model.[11] Frege thought of his new logic as providing a tool capable of revealing the *structure* of concepts, structure that could not be made explicit using the simple part-whole analysis of concepts suggested by Kant's *Logic* and equally presupposed in Boolean accounts. Frege's very choice of a name for his notation, "*Begriffsschrift*," or "concept-writing," indicates the importance of this idea in his early thought about logic. In a long polemical essay comparing his *Begriffsschrift* to Boole's logical notation, written in 1880 or 1881, Frege says: "Right from the start I had in mind the *expres-*

sion of a content." But, he adds, "the content is to be rendered more exactly than is done by verbal language," where "there is only an imperfect correspondence between the way the words are concatenated and the structure of the concepts. The words 'lifeboat' and 'deathbed' are similarly constructed though the logical relations of the constituents are different." He goes on to remark that arithmetic "forms concepts . . . of such richness and fineness in their internal structure that in perhaps no other science are they to be found combined with the same logical perfection" (*PW*, 12–13). Similarly, in the introduction to *Foundations,* he writes: "the concept of number . . . has a finer structure than most of the concepts of the other sciences" (*FA,* iv). The successful application of the *Begriffsschrift* to arithmetic will provide an expression for arithmetical concepts in which the fine structure of these concepts will be made perspicuous.

At the same time, the expression of arithmetical concepts in *Begriffsschrift* will make clear their "*richness*," their content as the "ground of many and great consequences." This is why Frege, in *Foundations*, claims that his definitions possess the virtue of "*fruitfulness*"[12] (*FA*, 81, 100–101). Frege's definitions of fundamental arithmetical concepts are based on careful reflection on the logical relations in which those concepts are involved, and so of their content. This kind of complex analysis of concepts is exhibited in such *Begriffsschrift* definitions as those of the ancestral of a relation and of a many-one relation. These definitions, in turn, are made possible by the crucial innovation of Frege's logic in adopting the device of quantifiers and bound variables to represent logical structures involving relations and embedded quantification. The process of extracting from concepts like that of the ancestral of a relation and that of a many-one relation, the kinds of consequences exhibited in theorems like the last proposition of the *Begriffsschrift*, which states that the ancestral of a many-one relation is connected, can be seen as a process of developing the implicit results of a *logical analysis* of the structure of the concepts involved.

Thus Frege's *Begriffsschrift* made possible a new form of conceptual analysis. In the preface to the *Begriffsschrift*, he connects this to his innovative logical analysis of the contents of judgment in terms of function and argument: "the replacement of the concepts of *subject* and *predicate* by *argument* and *function* will prove itself in the long run. It is easy to see how regarding a content as the function of an argument leads to the formation of concepts" (*CN*, 107).

In the *Begriffsschrift* Frege explains the notion of a function on a linguistic level (*CN*, 127):

> if, in an expression . . . a simple or complex symbol occurs in one or more places and we imagine it as replaceable by another (but the same one each time) at all or some of those places, then we call the part of the expression that shows itself invariant a function and the replaceable part its argument.

In writings preceding the publication of *Foundations*, and in *Foundations* itself, Frege extends this replacement and omission model of the generation of function-expressions from complete expressions, to the generation of concepts from judgeable

contents. In a letter written in 1882 he writes: "I do not believe that concept formation can precede judgment because this would presuppose the independent existence of concepts, but I think of a concept as having arisen by decomposition from a judgeable content" (*PMC*, 101). Similarly, in his 1880/81 polemical essay, he contrasts his view of concept-formation with Boole's (*PW*, 15–16):

> in Boole, the logically primitive activity is the formation of concepts by abstraction, and judgment and inference enter in through an activity of immediate or indirect comparison of concepts via their extensions. . . . As opposed to this, I start out from judgments and their contents, and not from concepts. . . . I only allow the formation of concepts to proceed from judgments. If, that is, you imagine the 2 in the judgeable content
>
> $2^4 = 16$
>
> to be replaced by something else, by (-2) or by 3 say, which may be indicated by putting an *x* in place of the 2:
>
> $x^4 = 16$,
>
> the judgeable content is thus split up into a constant and a variable part. The former, regarded in its own right but holding a place open for the latter, gives the concept '4^{th} root of 16' .

In *Foundations* itself, Frege tells us that "if, from a judgeable content which deals with an object *a* and an object *b* we subtract *a* and *b*, we obtain as remainder a relation-concept, which is, accordingly, incomplete at two points" (*FA*, 82). As this quotation shows, Frege drew a consequence from his account of the formation of concepts from judgeable contents: concepts are "incomplete" or "unsaturated." As he put it in the letter from 1882 cited above: "A concept is unsaturated in that it requires something to fall under it; hence it cannot exist on its own" (*PMC*, 101). Frege hence draws a very sharp distinction between concepts and objects, the latter being characterized as "self-subsistent." In the *Foundations*, the third of Frege's guiding methodological principles is "never to lose sight of the distinction between concept and object" (*FA*, x). The key to this distinction is the distinction between objects as "complete," "saturated," or "self-subsistent" entities which can serve as the arguments of functions, and concepts as functions, the "incomplete," "unsaturated" entities which require completion by arguments.

In the conclusion of *Foundations*, as well as in his polemic against Boole, Frege emphasized that his method of generating concepts out of judgeable contents was more fruitful and logically valuable than the method of constructing concepts out of already given concepts by means of Boolean operations (*FA*, 99–101; *PW*, 32–34). In *Foundations*, Frege criticizes Kant for adopting such a conception: "he seems to think of concepts as defined by giving a simple list of characteristics in no special order; but of all ways of forming concepts, that is one of the least fruitful" (*FA*, 100). Earlier, Frege had emphasized the "fruitfulness" of successful definitions and the "fine structure" of the simplest arithmetical concepts (*FA*, iv, ix, 81). In his conclusion, he asserts that in "the really fruitful definitions in mathematics . . . What we find . . . is not a simple list of characteristics; every element in the definition is

intimately, I might almost say organically, connected with the others." He offers a "geometrical illustration":

> If we represent the concepts . . . by figures or areas in a plane, then the concept defined by a simple list of characteristics corresponds to the area common to all the areas representing the defining characteristics. With a definition like this, therefore, what we do . . . is to use the lines already given in a new way for the purpose of demarcating an area.

This passage is drawn almost *verbatim* from his polemic against Boole, where he makes the same point about Boolean combinations of concepts in general (although he speaks in terms of "concept formation" rather than "definition"). In contrast, he says in *Foundations*, "the more fruitful type of definition is a matter of drawing boundary lines that were not previously given at all. What we shall be able to infer from it, cannot be inspected in advance; here, we are not simply taking out of the box again what we have just put into it. The conclusions we draw from it extend our knowledge, and ought therefore, on Kant's view, to be regarded as synthetic; and yet they can be proved by purely logical means, and are thus analytic"[13] (*FA*, 100–101).

An example might help to make clear what Frege has in mind.[14] Consider the following definition of prime number:

$$n \text{ is prime} \leftrightarrow n \neq 1 \;\&\; \forall m(\exists k(km = n) \rightarrow (m = 1 \vee m = n)).$$

Here we have defined "prime" in terms of multiplication, one, and logical vocabulary, but there is no sense in which this definition is simply given by a list (or even a Boolean combination) of characteristics or relations (product of, identical with . . .) which together make up the concept of a prime number. Rather, we have given a complex pattern, which can be applied to any number n to produce a statement asserting that n is prime. Note two features of this procedure: first, the pattern we have produced makes explicit use of the apparatus of bound variables and multiple quantification which is the key innovation of Frege's logic; and second the pattern we have produced amounts precisely to a specification of the concept of prime number as a *function* in Frege's sense. With such a definition, then, we have a form of analysis in which we begin, really, with complex judgments like:

$$2 \neq 1 \;\&\; \forall m(\exists k(km = 2) \rightarrow (m = 1 \vee m = 2))$$
$$3 \neq 1 \;\&\; \forall m(\exists k(km = 3) \rightarrow (m = 1 \vee \mathrm{m} = 3))$$
$$5 \neq 1 \;\&\; \forall m(\exists k(km = 5) \rightarrow (m = 1 \vee m = 5))$$

and recognize in them a common pattern, the concept of prime number

$$n \neq 1 \;\&\; \forall m(\exists k(km = n) \rightarrow (m = 1 \vee m = n)).$$

And with this form of analysis, Frege claims, we cannot anticipate in advance what we will be able to prove about the concept of prime number. "We are not simply taking out of the box again what we have just put into it."

Furthermore, what is central in the definition of "prime number" exhibited above is that this definition lays bare the logical content of the concept, showing

what would follow from an application of the concept to a number *n*. In particular, it makes explicit that from the claim that *n* is prime, together with the claim that $km = n$, we can infer that either $m = 1$ or $m = n$. The value of analysis resides in bringing to our attention such patterns of inference, patterns of which judgments follow from which other judgments. Thus we see why Frege claims to start with judgments and their contents, and derive concepts from them, and why he claims that this mode of concept-formation is "fruitful."

Thus, Frege's notion of "analyticity" is tied to a new conception of the *analysis* of concepts. Now, if we return to Russell's arguments in the *Philosophy of Leibniz* for the claim that all judgments but trivial identities are synthetic, we can see immediately that they rely on a conception of analysis much more like that which Frege criticizes in Kant and Boole. The key idea in all of Russell's arguments, as we saw, was that analysis always presupposes a prior synthesis, that we cannot analyze what we have not already combined. On this view it is clear that we will always in analysis be "simply taking out of the box again what we have just put into it." Russell takes it (in this early period) that every unity is put together out of independent constituents. The unity of the proposition then becomes a problem for Russell. Frege, on the other hand, takes for granted the unity of judgments and their contents. He envisages a mode of analysis of judgments into concepts and objects that is not merely a matter of taking apart something, which we have previously assembled. Rather, it is a matter of recognizing inferential relations among judgments, and providing an analysis that lays bare and systematizes those relations.

V. LOGIC IN FREGE AND RUSSELL'S LOGICISMS

What then can we conclude from all this? I think that we have found enough differences between Frege's and Russell's conceptions of the "logicist project" to suggest that it is misleading at best to think of them as truly engaged in a common project. Most important, (early) Frege and (early) Russell had sufficiently different conceptions of "logic," so that the slogan "mathematics is part of logic" did not really have the same force for each of them. In this final section, I add further support to this conclusion, through a consideration of Frege and Russell's different conceptions of the importance of the new "symbolic logic" to *logic*, and so to their respective "logicisms."[15]

To begin with, it is significant that Frege *invented* his *Begriffsschrift*, whereas Russell *learned* what he called "Symbolic Logic" from his study of others' works, first from Whitehead, then from Peano, and finally from Frege. Frege, in a 1906 fragment titled "What may I regard as the Result of my Work?" wrote: "It is almost all tied up with the concept-script (*Begriffsschrift*). A concept construed as a function" (*PW*, 184). Frege's logical discoveries were deeply intertwined with the creation of the *Begriffsschrift*. He viewed this symbolism as making perspicuous key

logical distinctions which ordinary language covered up. His attitude toward the relative merits of ordinary language and his conceptual notation comes out clearly in the preface to the *Begriffsschrift* (*CN*, 106):

> If it is a task of philosophy to break the power of the word over the human mind, uncovering illusions which through the use of language often almost unavoidably arise concerning the relations of concepts, freeing thought from that which only the nature of the linguistic means of expression attaches to it, then my *Begriffsschrift*, further developed for these purposes, can become a useful tool for the philosopher.

Among the illusions fostered by language, the most important for Frege was the refusal to recognize a sharp distinction between concept and object. In his polemic against Boolean logic, discussed above, he emphasized that the *Begriffsschrift* always respects the distinction between unsaturated concept and saturated object (*PW*, 17):

> in the *Begriffsschrift* their designations [the designations of concepts] never occur on their own, but always in combinations which express judgeable contents. . . . A sign for a property never appears without a thing to which it might belong at least indicated . . .

Even in a quantificational context like "$\forall xFx$" the concept-expression "$F(\ )$" is completed by the letter "x", which indicates an argument for the concept and so shows its unsaturatedness.

Contrasting his logic with that of Boole, Frege described the *Begriffsschrift* as a "fresh approach to the Leibnizian idea of a *lingua characterica*," a "universal language." Frege distinguished this idea from the closely associated one of a "*calculus ratiocinator*" or calculus of reason.[16] Using these terms, he argued that his *Begriffsschrift* had fundamentally different aims from those of Boole's logic (*PW*, 12–13):

> it is necessary that we should always bear in mind the purpose that governed Boole in his symbolic logic and the one that governed me in my *Begriffsschrift*. If I understand him aright, Boole wanted to construct a technique for resolving logical problems systematically, similar to the technique of elimination and working out the unknown that algebra teaches. . . . In all this there is no concern about content whatsoever. . . . In contrast we may now set out the aim of my concept-script. Right from the start I had in mind the *expression of a content*. What I am striving for is a *lingua characterica* in the first instance for mathematics, not a *calculus* restricted to pure logic. But the content is to be rendered more exactly than is done by verbal language. For that leaves a great deal to guesswork, even if only of the most elementary kind. There is only an imperfect correspondence between the way words are concatenated and the structure of the concepts. . . . A *lingua characterica* ought, as Leibniz says, *peindre non pas les paroles, mais les pensées* [to depict not words, but thoughts].

For Frege, a *lingua characterica* such as his *Begriffsschrift* is an instrument for overcoming language-induced confusion, and hence for "breaking the power of the

word over the human mind." Boolean logic is not such an instrument, but rather a mere *calculus ratiocinator*.

In this connection, it is interesting that Russell was first introduced to "symbolic logic" through his reading of Whitehead's presentation of Boolean logic in his *A Treatise on Universal Algebra* of 1898. Whitehead opens this work with a general discussion of *signs*. He distinguishes between the "expressive signs" of "ordinary language" and the "substitutive signs" of algebra (*UA*, 3–4):

> In the use of expressive signs the attention is not fixed on the sign itself but on what it expresses; that is to say, it is fixed on the meaning conveyed by the sign. Ordinary language consists of groups of expressive signs . . .
>
> A substitutive sign is such that in thought it takes the place of that for which it is substituted. A counter in a game may be such a sign: at the end of the game the counters lost or won may be interpreted in the form of money, but till then it may be convenient for attention to be concentrated on the counters and not on their signification. The signs of a Mathematical Calculus are substitutive signs.
>
> The difference between words and substitutive signs has been stated thus, "a word is an instrument for thinking about the meaning which it expresses; a substitute sign is a means of not thinking about the meaning which it symbolizes."

Whitehead goes on to introduce the notion of a Calculus (*UA*, 4–5):

> In order that reasoning may be conducted by means of substitutive signs, it is necessary that rules be given for the manipulation of the signs. . . .
>
> The art of the manipulation of substitutive signs according to fixed rules, and of the deduction therefrom of true propositions, is a Calculus. . . .
>
> When once the rules for the manipulation of the signs of a calculus are known, the art of their practical manipulation can be studied apart from any attention to the meaning to be assigned to the signs.

He reiterates the thought that such a calculus allows us to *avoid thinking* (*UA*, 10):

> Not only can the reasoning be transferred from the originals to the substitutive signs, but the imaginative thought can in large measure be avoided. . . . A calculus avoids the necessity for inference and replaces it by an external demonstration . . .

Whitehead's first example of an algebra is Boolean algebra. He develops this in chapters 1–3 of Book 2, turning only in chapter 4 to its "Application to Logic." He begins his discussion with the following comment (*UA*, 99):

> It remains to notice the application of this algebra to Formal Logic, conceived as the Art of Deductive Reasoning. It seems obvious that a calculus—beyond its suggestiveness—can add nothing to the theory of Reasoning. For the use of a calculus is after all nothing but a way of avoiding reasoning by the help of the manipulation of symbols.

Thus, for Whitehead, Boole's logical symbolism cannot be essential to *logic*, the science of reasoning; it is at best a "suggestive" heuristic aid in reasoning.

In his *Philosophy of Leibniz* of 1900, Russell discussed symbolic logic in connection with Leibniz's project for a "universal characteristic" (*PL*, 169–70, my emphasis):

> This was an idea which he cherished throughout his life . . . He seems to have thought that the symbolic method, in which formal rules obviate the very necessity of thinking, could produce everywhere the same fruitful results as it has produced in the sciences of number and quantity. . . . What he desired was evidently akin to the modern science of Symbolic Logic, which is definitely a branch of Mathematics, and was developed by Boole under the *impression* that he was dealing with the "Laws of Thought." As a mathematical idea—as a Universal Algebra, embracing Formal Logic, ordinary Algebra, and Geometry as special cases—Leibniz's conception has shown itself in the highest degree useful.

Here Russell assimilates Leibniz's project for a universal characteristic to the mechanically operable calculi of Whitehead's Universal Algebra, whose purpose is to make reasoning *unnecessary*. This contrasts with the view of Frege, who, as we saw, viewed the universal characteristic as including not only a "*calculus ratiocinator*" but also a "*lingua characterica*" for the perspicuous representation of thoughts. For Frege, the *Begriffsschrift* is *not* a means for avoiding thought, but a means for *thinking clearly*—for the first time.

The attitude toward "symbolic logic" which Russell learned from Whitehead and which was manifested in the *Philosophy of Leibniz* persists in the *Principles of Mathematics*. At the end of the first chapter of that work, Russell states that "the present work has to fulfill two objects, first, to show that all mathematics follows from symbolic logic, and secondly to discover, as far as possible, what are the principles of symbolic logic itself" (*PM*, 9). Yet he begins his second chapter on "Symbolic Logic" by announcing: "the word *symbolic* designates the subject by an accidental characteristic, for the employment of mathematical symbols, here as elsewhere, is merely a theoretically irrelevant convenience" (*PM*, 10). In fact, in this chapter of *Principles*, Russell manages to present the "principles of symbolic logic" virtually without using symbols!

The logic that he presents there, however, is not Boole's but Peano's. Russell later described his discovery of Peano's logic during his visit to the International Congress of Philosophy in Paris in 1900 as "the most important event" in "the most important year in my intellectual life" (Russell 1958, 12). Russell's first major work in logic followed this discovery: a presentation of the Peirce-Schröder logic of relations in Peano's notation, published in Peano's house journal, the *Revue des Mathématiques* (earlier the *Rivista di Matematica*) in 1901.

Peano, like Frege, often introduced his notation in relation to Leibniz's project for a "universal characteristic": "After two centuries, this 'dream' of the inventor of the infinitesimal calculus has become a reality. . . . We have therefore the solution to

the problem proposed by Leibniz" (*OS*, 196). Again like Frege, he portrays his notation as not merely a *calculus* but also a *language*: it is "capable of representing all the ideas of logic, so that by introducing symbols to represent the ideas of the other sciences, we may express every theory symbolically." It is "not just a conventional abbreviated writing, . . . since our symbols do not represent words but ideas" (*SW*, 190–91).

Shortly after his introduction to Peano's logical notation, Russell celebrated it as a realization of Leibniz's dream. In a survey of Italian logical work published in *Mind* in 1901, he wrote (*CPBR3*, 353):

> To Peano . . . is due the revival, or at least the realization, of Leibniz's great idea, that, if symbolic logic does really contain the essence of deductive reasoning, then all correct deduction must be capable of exhibition as a calculation by its rules.

Here, as in the *Philosophy of Leibniz*, Russell's emphasis is on the role that a logical language can play in reducing deduction to calculation. Similarly, in another 1901 article, "Recent Work on the Principles of Mathematics," Russell again credits Peano with realizing Leibniz's grand project:[17]

> Two hundred years ago, Leibniz foresaw the science which Peano has perfected, and endeavoured to create it. . . . the subject which he desired to create now exists . . . over an enormous field of what was formerly controversial, Leibniz's dream has become sober fact. (*CPBR3*, 369)

But Russell's explanation of the virtues of Peano's notation again emphasizes its aspect as a calculus (*CPBR3*, 367–68):[18]

> People have discovered how to make reasoning symbolic, as it is in Algebra, so that deductions are effected by mathematical rules. . . . What we wish to know is, what can be deduced from what. Now, in the beginnings, everything is self-evident, and it is very hard to see whether one self-evident proposition follows from another or not. Obviousness is always the enemy to correctness. Hence we invent some new and difficult symbolism, in which nothing seems obvious. Then we set up certain rules for operating on the symbols, and the whole thing becomes mechanical. . . . The great master of the art of formal reasoning, among the men of our own day, is an Italian, Professor Peano, of the University of Turin.

A few years before Russell's discovery of Peano's logic, Frege had published an article comparing his *Begriffsschrift* with Peano's notation, and a letter from Frege to Peano concerning the relation between their symbolisms was published in Peano's journal, *Rivista di Matematica*, along with Peano's reply. In his published article, Frege takes up the "respective aims" of their notations, as he had in comparing his notation to Boole's (*CP*, 234). He concludes that Peano's "enterprise more closely resembles my conceptual notation than it does Boole's logic" since it is intended both as a "*lingua characterica*" and a "*calculus ratiocinator*" (*CP*, 242). Nonetheless, Frege criticizes many of the details of Peano's notation, claiming that "the striving for logical perfection is less marked here than in my *Begriffsschrift*" (*CP*, 238). One

of the advantages Frege cites for the *Begriffsschrift* is its clear marking of the distinction between concept, or more generally function, and object: "I distinguish function-letters from object-letters, using the former to indicate only functions and the latter to indicate only objects, in conformity with my sharp differentiation between functions and objects, with which Mr. Peano is unacquainted" (*CP*, 248). In the letter published in the *Rivista di Matematica*, Frege provides an example of a proposition from Peano's *Formulario* in which "the function letter '*f*' occurs . . . without an argument place." He writes: "this is to misunderstand the essence of a function, which consists in its need for completion. One particular consequence of this is that every function sign must always carry with it one or more places which are to be taken by argument signs; and these argument *places*—not the argument signs themselves—are a necessary component part of the function sign" (*PMC*, 115–16, my emphasis).

Russell's "The Logic of Relations" of 1901 reproduces what would be for Frege the same error, in its very first proposition:

> 1 R ε Rel. ⊃ :xRy. = . x has the relation R with y (*CPBR3*, 315).

Here "R" occurs both with and without argument places—for Frege an instance of equivocation between concept and object. In *Principles*, however, Russell rejects this Fregean distinction. He relies on the grammar of ordinary language to guide his reflections, rather than the structure of "symbolic logic," writing that (*PM*, 42):

> The study of grammar, in my opinion, is capable of throwing far more light on philosophical questions than is commonly supposed by philosophers. Although a grammatical distinction cannot be uncritically assumed to correspond to a genuine philosophical difference, yet the one is *prima facie* evidence of the other, and may often be most usefully employed as a source of discovery. . . . On the whole, grammar seems to me to bring us much nearer the correct logic than the current opinions of philosophers; and in what follows, grammar, though not our master, will yet be taken as our guide.

Following this guide, Russell adopts an ontology in the *Principles* which is based on the fundamental principle that "every constituent of every proposition must, on pain of self-contradiction, be capable of being made a logical subject" (*PM*, 48). According to this ontology there is a most general category of entities, the category of *terms*. Propositions (the equivalent of the early Frege's judgeable contents) are complex terms composed of simple terms as their parts. Given any proposition, some of the terms that make it up are distinguished as "the terms *of* the proposition," its "logical subjects"—these are the terms, which the proposition can be said to be "about." For example, in the proposition *Socrates is human* the two terms *Socrates* and *human(ity)* both occur as constituents, but only *Socrates* occurs as a term *of* the proposition, its logical subject. The terms that occur *as* terms *of* a proposition (its logical subjects) are distinguished by the fact that *any* term can sensibly replace them in the proposition—thus we can form not only the proposition *Plato is human* but also the proposition *humanity is human* from *Socrates is*

human. In contrast, according to Russell, "with the sense that *is* has in this proposition," *Socrates* could not replace *human*. Thus the only term *of Socrates is human* is *Socrates*; this proposition is *about Socrates*, but not *human(ity)*. Every term can be the subject of propositions about it, propositions in which it occurs as a term *of* the proposition; for example, *humanity* occurs as a term *of* the proposition *humanity is a concept*. Some terms, such as *Socrates*, can *only* occur as terms *of* the propositions in which they occur; Russell calls these "things." Other terms, such as *humanity*, have a "curious twofold use," occurring in some propositions without occurring as terms *of* those propositions; these are called "concepts" (*PM*, 44–45).

Now here Russell does have a distinction between "things" and "concepts." But by insisting that both "things" and "concepts" can be captured under the more general heading "terms," and that *any* term can be made the logical subject of a proposition, so that *any* term, even a concept, can sensibly replace a thing in a proposition, Russell shows clearly that his distinction is not the same as that which Frege sought to draw between concept and object. For Frege, what can be intelligibly said of self-subsistent objects cannot even be intelligibly said of incomplete concepts—for example, we cannot predicate identity of concepts as we can of objects, but only an analog of the relation of identity between objects.

Russell was well aware of the difference between his account of concepts and things, and Frege's distinction between concepts and objects, devoting several pages of his appendix to the *Principles* on "The Logical and Arithmetical Doctrines of Frege" to a discussion of this issue, and concluding that "Frege's theory . . . will not, I think, bear investigation," and that "the doctrine of concepts which cannot be made subjects seems untenable" (*PM*, 510). I do not wish to enter into this controversy here, but only want to suggest that this provides us with a deep connection to Frege and Russell's differing views on the analytic/synthetic distinction in their early logicist works. Russell at points comes close in *Principles* to a conception like that of Frege's view of concepts as unsaturated functions, particularly in his discussions of *assertions* about a term and of *propositional functions*. But he remains deeply suspicious of such a conception. Consequently he never, in *Principles*, clearly sees what Frege saw, that the replacement of the grammatical analysis of propositions into subject and predicate with a logical analysis into function and argument "leads to the formation of concepts" (*CN*, 107) and thus makes possible a new and distinctive mode of conceptual *analysis*, one in which we do not "simply take out of the box what we have just put into it."

Thus, although Russell was clearly aware of the power of logical developments such as Frege's, initially through his encounter with Peano, and then through his own study of Frege's works, he was nonetheless prevented from appreciating the sense in which Frege could claim to have achieved a new and more fruitful conception of the formation of concepts. What prevented Russell from doing this was his conception of "symbolic logic" as only, insofar as it is *logic*, "accidentally" *symbolic*. "Logic" in *Principles* is essentially independent of any particular system of notation. Frege's "logic" on the other hand, "is almost all tied up with the concept-script."

While both Frege and Russell may have claimed that mathematics is a part of logic, then, they did not intend the same thing by this thesis. Their "logicisms" were deeply, not merely superficially different.

NOTES

Versions of this paper were presented to the Philosophy of Mathematics Workshop of the University of Notre Dame (November 8, 2001), and the Philosophy Departments of the University of Chicago (November 14, 2002), and the University of California at Los Angeles (February 28, 2003). Thanks are due to helpful discussion from members of all three audiences. Special thanks are due to Joan Weiner for comments on an earlier draft of this paper.

After substantially completing work on this paper, I read (Levine 2002), which arrives at similar conclusions to mine through a quite different route. I briefly discuss one aspect of Levine's paper in section 3 below.

1. I emphasize "early" Frege and Russell in my title, because the development of Frege's thought after *Foundations*, and Russell's after *Principles*, involved changes in both of their conceptions of "logic," which in some ways brought them closer together, while in other ways drove them further apart. That, however, is a story for another paper.
2. One might object, as did an anonymous referee for another journal, that there are still sufficient similarities between Frege's and Russell's views on logic to justify classifying their logicisms together: in particular, both hold that logic has no need of intuition, and both hold that logic consists of maximally general substantive truths. The first point is surely right, and underlies both Frege's and Russell's responses to Kant insofar as both also reject the thought that *mathematical* proofs rely on intuition. But it is insufficient to show that Frege and Russell have a common conception of logic, given the differences I detail in this paper. On the second point, however, I do not think that the conception of logical truths as maximally general substantive truths is held by the early Frege, who is (half of) the focus of this paper. John MacFarlane has argued, against Thomas Ricketts and Warren Goldfarb, that the sense in which logic is "general" for Frege is *normative* rather than *descriptive*: "logic is general in the sense that it provides constitutive norms for thought *as such*, regardless of its subject matter" (MacFarlane 2002, 35; see Goldfarb 1979, 2001, and Ricketts 1985, 1986a, 1986b, 1996, for the views that MacFarlane is opposing). MacFarlane makes this claim about Frege's view of logic throughout his career; I believe that the case can be made even more convincingly for the early Frege. For example, in his first attempt to write a "Logic," in the early 1880s, Frege characterizes the goal of logic as establishing the "laws of valid inference" and argues that "the subject-matter of logic is therefore such as cannot be perceived by the senses" (*PW*, 3). The account of logical truths as maximally general substantive truths is not on view. This conception of the generality of logic does come to play a role in Frege's thought after the introduction of the sense-meaning distinction, but remains in tension with the earlier, normative conception, as MacFarlane argues.
3. I draw my inspiration in this section in part from related discussions in Tappenden (1995).
4. The following argument works best in the case of universal affirmative judgments. I ignore complications that would be occasioned by considering other forms of categorical judgment here.
5. In this paragraph I am indebted to correspondence with Joan Weiner.
6. As we will see, Russell chose this second way of expressing his disagreement with Kant. The question then is whether this difference between Frege and Russell is merely verbal.
7. The best treatment of Russell's early philosophy remains Hylton (1990). However, Hylton does not give as complete a treatment of Russell's arguments in the *Philosophy of Leibniz* as I do here.
8. I do not mean to suggest that this argument would be accepted by Kant, or indeed by Leibniz. My concern here is with the underlying conception of analysis revealed in the argument.
9. Once again, I am indebted to Tappenden (1995), as well as to Dummett (1991), here. See also Kremer (forthcoming).

10. There are, however, exceptions, for example *CN*, 88.
11. I owe this point to Joan Weiner, although she would not draw from it the same conclusion that I do.
12. Frege uses here the same words, "richness" and "fruitfulness," used by Kant in describing the content of a cognition.
13. In this passage Frege appeals to both versions (B) and (C) of the analytic/synthetic distinction, recognizing the reasons for attributing (B) to Kant while insisting on taking (C) to be the correct way of drawing the distinction.
14. A similar example is used by Peter Sullivan in "Frege's Logic" (Sullivan 2004, 696).
15. On the restriction to "early" Frege and Russell, see note 2.
16. Frege's appeal to these Leibnizian ideas is discussed by Jean van Heijenhoort in his seminal paper "Logic as Calculus and Logic as Language" (van Heijenhoort 1985; see also Sluga 1980). Van Heijenhoort's paper is an inspiration for much work arguing that Frege and Russell share a common conception of logic as a "maximally general science" (see the references in note 3 above). For van Heijenhoort, Frege and Russell are the founders of a tradition which views logic as a language rather than a calculus. This tradition is characterized by the universality of logic in at least two, related, senses: the quantifiers of the new logical language bind variables that are unrestricted in generality; and everything that can be expressed can be expressed in the new logical language, so that there is no room for a metaperspective. Opposed to the Frege-Russell tradition, van Heijenhoort sees an algebraic tradition in logic running from Boole through Schröder to Löwenheim, which views logic as a calculus, rather than a language.

    Gregory Landini, while disagreeing with much of what van Heijenhoort takes to follow from this, notes that "Russell (as Frege before him) spoke of himself as offering not merely a *calculus ratiocinator* in the manner of Boole, but a *characteristica lingua universalis* as Leibniz had conceived of it" (Landini 1998, 31, referring to *CPBR3*, 369). Yet, as Hans Sluga and Volcker Peckhaus have pointed out, even Schröder, for van Heijenhoort a prime representative of the "logic as calculus" school, makes this claim for his own, Boolean, logic, arguing that it is *Frege's* logic that is a mere calculus (Sluga 1987, 82–83; Peckhaus 2004, 598–602). This fact suggests that we have to be careful in estimating the significance of any claim on Russell's part to be offering a universal language. As we'll see, Russell's discussions of this idea are heavily influenced by his own debt to the algebraic tradition in logic.
17. This essay was later reprinted in *Mysticism and Logic* as "Mathematics and the Metaphysicians." Landini cites this passage as evidence that Russell's logic is intended as a Leibnizian universal characteristic.
18. In a letter to Couturat of January 17, 1901, Russell similarly lauds Peano's symbolism as an "algorithm" which "I now entirely use," citing as its advantages "(1) that logical analysis is made very much easier; (2) that fallacies become much rarer; (3) that formulae and proofs become a thousand times more easy to understand" (Russell 2002, 205).

REFERENCES

Carnap, Rudolf. 1931. "The Logicist Foundations of Mathematics." *Erkenntnis* 2 (1931): 91–105.

Coffa, J. Alberto. 1981. "Russell and Kant." *Synthese* 46: 247–63.

Dummett, Michael. 1991. *Frege: Philosophy of Mathematics*. Cambridge: Harvard University Press.

Frege, Gottlob. 1972. *Conceptual Notation and Related Articles*. T. W. Bynum, trans. and ed. Oxford: Clarendon Press. Cited as *CN*.

———. 1980a. *Foundations of Arithmetic*. J. L. Austin, trans. Evanston: Northwestern University Press. Cited as *FA*.

———. 1980b. *Posthumous Writings*. P. Long and R. White, trans. Chicago: University of Chicago Press. Cited as *PW*.

———. 1980c. *Philosophical and Mathematical Correspondence*. H. Kaal, trans. Chicago: University of Chicago Press. Cited as *PMC*.

———. 1984. *Collected Papers on Mathematics, Logic and Philosophy*. B. McGuinness, ed. Oxford: Blackwell. Cited as *CP*.
Goldfarb, Warren D. 1979. "Logic in the Twenties: The Nature of the Quantifier." *Journal of Symbolic Logic* 44: 351–68.
———. 2001. "Frege's Conception of Logic," in J. Floyd and S. Shieh, eds., *Future Pasts*. Oxford: Oxford University Press.
Hylton, Peter. 1990. *Russell, Idealism and the Emergence of Analytic Philosophy*. Oxford: Clarendon Press.
Irvine, A. D. 1996. "*Principia Mathematica*," in the *Stanford Encyclopedia of Philosophy*. Retrieved November 5, 2002, from http://plato.stanford.edu/entries/principia-mathematica/.
Kant, Immanuel. 1998. *Critique of Pure Reason*. P. Guyer and A. Wood., trans. Cambridge: Cambridge University Press. Cited as *CPR*.
———. 1997. *Prolegomena to Any Future Metaphysics*. G. Hatfield, trans. Cambridge: Cambridge University Press. Cited as *PFM*.
———. 1992. *Lectures on Logic*. J. Michael Young, trans. Cambridge: Cambridge University Press. Cited as *LL*.
Kremer, Michael. Forthcoming. "Sense and Meaning: The Origins and Development of the Distinction," to appear in *The Cambridge Companion to Frege*.
Landini, Gregory. 1998. *Russell's Hidden Substitutional Theory*. Oxford: Oxford University Press.
Levine, James. 2002. "Analysis and Decomposition in Frege and Russell." *Philosophical Quarterly* 52: 195–216.
MacFarlane, John. 2002. "Frege, Kant, and the Logic in Logicism." *Philosophical Review* 111: 25–65.
Peano, Giuseppe. 1973. *Selected Works of Giuseppe Peano*. H. C. Kennedy, trans. and ed. Toronto: University of Toronto Press. Cited as *SW*.
———. 1958. *Opere Scelte*. Vol. II, *Logica Matematica; Interlingua ed Algebra della Grammatica*. Roma: Edizioni Cremonese. Cited as *OS*.
Peckhaus, Volcker. 2004. "Schröder's Logic," in D. M. Gabbay and J. Woods, eds. *Handbook of the History of Logic*. Vol. 3, *The Rise of Modern Logic: From Leibniz to Frege*. Amsterdam: Elsevier-North Holland.
Richter, Duncan. 2004. *Historical Dictionary of Wittgenstein's Philosophy*. Lanham, Md.: Scarecrow Press.
Ricketts, Thomas. 1986a. "Objectivity and Objecthood: Frege's Metaphysics of Judgment," in L. Haaparanta and J. Hintikka, eds. *Frege Synthesized*. Dordrecht: Reidel.
———. 1986b. "Generality, Meaning and Sense in Frege." *Pacific Philosophical Quarterly* 67: 172–95.
———. 1985. "Frege, the *Tractatus*, and the Logocentric Predicament." *Noûs* 19: 3–15.
———. 1996. "Pictures, Logic and the Limits of Sense in Wittgenstein's *Tractatus,*" in H. Sluga and D. Stern (eds.), *The Cambridge Companion to Wittgenstein*. Cambridge: Cambridge University Press.
Russell, Bertrand. 1938. *Principles of Mathematics*. 2nd ed. New York: W. W. Norton and Company. Cited as *PM*.
———. 1951. "My Mental Development," in P. A. Schilpp, (ed.), *The Philosophy of Bertrand Russell.* 3rd edition. New York: Tudor.
———. 1989. *The Philosophy of Leibniz*. Wolfeboro: Longwood Academic. Cited as *PL*.
———. 1993. *Collected Papers of Bertrand Russell*. Vol. 3, *Toward the Principles of Mathematics: 1900–02*. G. Moore, ed. London: Routledge. Cited as *CPBR3*.
———. 2002. *The Selected Letters of Bertrand Russell: The Private Years, 1884–1914*. N. Griffin, ed. London: Routledge.
Sluga, Hans. 1980. *Gottlob Frege*. London: Routledge and Kegan Paul.
———1987. "Frege against the Booleans." *Notre Dame Journal of Formal Logic* 28: 80–98. Stein, Howard. 1998. "Logicism," in E. Craig (ed.), *Routledge Encyclopedia of Philosophy*. London: Routledge. Retrieved November 5, 2002 from http://www.rep.routledge.com/articleY061SECT1.
Sullivan, Peter. 2004. "Frege's Logic," in D. M. Gabbay and J. Woods (eds.), *Handbook of the History of Logic*. Vol. 3, *The Rise of Modern Logic: From Leibniz to Frege*. Amsterdam: Elsevier North-Holland.
Tappenden, Jamie. 1995. "Extending Knowledge and 'Fruitful Concepts.'" *Nous* 29: 427–67.
Van Heijenoort, Jean. 1985. "Logic as Calculus and Logic as Language," in *Selected Essays*. Napoli: Bibliopolis.

Whitehead, Alfred North. 1898. *A Treatise on Universal Algebra, with Applications*. Cambridge: Cambridge University Press. Cited as *UA*.
Wilder, Raymond. 1965. *Introduction to the Foundations of Mathematics*. New York: John Wiley and Sons.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Kant's Spontaneity Thesis

Thomas Land
University of Basel

At the heart of the *Critique of Pure Reason* lies a distinction between two fundamental cognitive powers, sensibility and understanding. It is a measure of how important this distinction is that Kant singles it out as the feature which makes his own position superior to those of his most prominent predecessors, on both the Empiricist and the Rationalist side.[1] In light of this, it is perhaps unsurprising that this distinction has also been at the center of a number of recent attempts by contemporary analytic philosophers to inherit Kant. If sensibility is the capacity for perception and the understanding the power of conceptual thought, a crucial question for both Kant and contemporary Kantians is exactly how are these two capacities related? In the context of contemporary Kantianism, this issue gained prominence through Wilfrid Sellars' classic paper "Empiricism and the Philosophy of Mind."[2] Sellars is concerned with the problem of how the interaction between sensibility and understanding must be conceived if a certain kind of rational relation is to obtain between their respective exercises. The relation is captured by the image, borrowed from Quine, that exercises of the power of thought must face the "tribunal of experience."[3] The idea is that it must be possible, in principle, to assess thoughts as true or false, and as justified or unjustified, in light of sensory experience. But for this to be possible the deliverances of sensibility must have the right kind of structure. They must, that is, have the kind of structure which makes it possible for thought to be answerable to them. Exactly what this requirement amounts to, however, has been a subject of debate.

The shared assumption of the debate is that for the deliverances of sensibility to meet this requirement, they must possess a certain kind of structure or unity. The controversy concerns the issue of exactly wherein the required unity consists. More specifically, the question is to what extent the understanding must be involved in sensibility, if perceptions are to exhibit this unity. If we put the point in terms of the involvement in sensibility of conceptual capacities, we can characterize the debate in terms of the following alternative: possession by intuitions of the requisite kind of unity either requires the involvement of conceptual capacities, or it does not. The parties to the debate differ over which of these two alternatives is the correct one; and, as a foil to my own reading, I want briefly to flag the assumptions involved on either side.

The tendency is to assume that if intuition, in order to exhibit the requisite unity, does depend on the involvement of conceptual capacities, then the unity of sensory experience is the same as the unity of conceptual thought, in the sense that sensory experience is propositional in structure. Its content is conceptual; it has the same articulation as exercises of the understanding. And this sameness of articulation explains why intuitions can stand in rational relations to thought.[4] On the other hand, the tendency of those opposed to this view is to assume that if conceptual capacities need not be involved for intuitions to have the requisite unity, then we must recognize a distinctly sensory kind of unity. Advocates of this view hold that possession of this specifically sensory kind of unity is sufficient for intuitions to play the role required of them. What is more, they argue that the involvement of conceptual capacities in sensibility would actually prevent it from playing its proper role. For such involvement is incompatible with the specifically sensory nature of perception.[5]

Rather than engaging this debate directly, my goal in this paper is to argue that Kant's own position offers a third alternative. As I will try to show, Kant, too, was concerned to develop a conception of the relation between perception and thought, or sensibility and understanding, on which it becomes intelligible how thought is answerable to intuition, in the sense that thoughts can be assessed as true or false in light of what is given in intuition. But his conception is specifically different from either of the two alternatives just sketched, and is therefore able to avoid their respective shortcomings.

The key to appreciating Kant's position lies in a proper handling of his notion of spontaneity. Accordingly, this notion is at the center of this paper. My claim is that a widely held view of what Kant means by calling the understanding "the faculty of spontaneity" is mistaken. Not only is there textual evidence against this view, it also leads to a distorted picture of how Kant conceives of the relation between understanding and sensibility. Once the proper conception of spontaneity is in place, however, it will emerge that Kant's conception of this relation constitutes a genuine alternative to the options just canvassed.

I shall proceed as follows. I begin by sketching the received view of Kant's conception of spontaneity. I then provide some textual evidence for regarding this view as insufficient, because it fails to account for what seems to be an integral feature of

this conception. Since this feature can appear, on the face of it, to be rather implausible, my strategy in the remainder of the paper will be to ask what reasons Kant has for accepting it anyway. By identifying these reasons I hope to show that the presence of this feature in his conception of spontaneity is in fact well motivated. I end by considering an objection—one which serves to highlight some important features of Kant's conception of sensibility, which allow it to play the role that it does in his account of how thought can be answerable to the deliverances of sensibility.

1. SPONTANEITY AS JUDGMENT

Spontaneity, according to Kant, is the hallmark of the understanding, as the following passage, in which he characterizes the two basic cognitive powers of the mind, makes clear:

> Our cognition springs from two fundamental sources of the mind; the first is the capacity of receiving representations (the receptivity for impressions), the second is the power of cognizing an object through these representations (the spontaneity of concepts). Through the first an object is *given* to us, though the second it is *thought* in relation to that representation (which is a mere determination of the mind). [...] If the *receptivity* of our mind to receive representations, insofar as it is affected in some way, is to be called sensibility, then the mind's power of producing representations from itself, the *spontaneity* of cognition, is the understanding. (A50f/B74f)[6]

Sensibility and understanding, the passage says, are distinct cognitive capacities because they differ with regard to the way in which their respective representations are caused. Sensibility is characterized as receptive, because sensible representations result from, and thus depend on, the affection of the mind by something external. By contrast, the understanding is spontaneous, because it generates representations out of itself, independently of external causes.

Because the understanding is defined by Kant as the capacity for judgment, it has seemed natural to commentators to associate spontaneity with the capacity for judgment.[7] Thus, to exercise the spontaneous capacity of the mind is to make judgments. Accordingly, commentators have sought to explain the content of Kant's spontaneity claim by considering the distinctive features of judgment.

The view advocated by Henry Allison is representative of this approach.[8] Central to Allison's view is the idea that judgment must be construed as a "taking as." To make a judgment is to take something to be the case, for instance, to take some object *a* as being *F.* The point of this locution is that it makes explicit the requirement that, in making a judgment, the subject must be aware of the significance of its own act. In particular, the subject must be aware that its act contains a claim to objectivity, to representing how things are. How things are is independent of how they are represented as being, in the sense that representing them to be a

certain way doesn't make it the case that they are this way. The representation may be true or false. If the subject is to be aware of the significance of its act, this means that it must have a grasp of the fact that its act is beholden to a standard of correctness independent of it in just this way. So a judgment must involve a grasp of the fact that things may or may not be as the judgment says they are, which means that it must involve an awareness of the distinction between what one judges to be the case, on the one hand, and what actually is the case, on the other.

For judgment to include an understanding of its own significance is for it to be apperceptive, to involve a particular form of self-consciousness. In fact, Allison takes this to be the content of Kant's principle of apperception, according to which "the 'I think' must be able to accompany all my representations" (B131). The crucial point for our purposes, however, is that, according to Allison, the apperceptive nature of judgment requires spontaneity. To take a representation as a representation of how things objectively are, it is not sufficient for this representation merely to occur in the mind as a result of sensible affection. Rather, the subject must take a certain stance towards its own representation, attach a certain significance to it. And the taking up of this stance cannot be explained, Allison contends, through the workings of merely receptive capacities. Sensible, i.e. receptive, capacities can explain that a representation with a certain content occurs in the mind. But they cannot explain the taking up of the particular stance involved in attaching objective significance to this representation. In Allison's words,

> Sensibility can present to the mind *x*'s that are *F*'s, but it cannot, not even in collaboration with the imagination, take or recognize them as such. This is the work of the understanding. In this respect, then, Kant's conception of spontaneity is an essential component of his account of the understanding, and particularly its distinction from sensibility.[9]

Furthermore, the "taking-as" of judgment is identified with what Kant calls the synthesis of intuitions. Consider the following passage, where, commenting on Kant's identification of the understanding with spontaneity, construed as "the mind's power of producing representations from itself" (A51/B75), Allison writes:

> The key to understanding this identification lies in Kant's further identification of discursive thought with judgment. […] What judgment 'produces' from itself is the representation of objects, that is to say, objectively valid judgments. The understanding is, therefore, spontaneous in the sense that it 'constitutes' objectivity or objective reference in and through the act of judgment, and it does this by synthesizing the manifold of sensible intuition in accordance with its own inherent rules (the pure concepts of the understanding).[10]

In making a judgment, the passage says, the subject synthesizes a manifold of intuition. And since Kant holds that all synthesis is spontaneous, we in fact have here an identification of judgment and synthesis: judging is synthesis, and synthesis is judging.

2. TEXTUAL EVIDENCE

I believe that the strategy of explaining Kant's conception of spontaneity by focusing exclusively on the characteristics of judgment is mistaken. While it may be correct to say that Kant has a conception of judgment as "taking as," there is textual evidence suggesting that he recognizes exercises of spontaneity other than judgment. He seems to hold that there is a kind of exercise of spontaneity in sensible synthesis, which must be distinguished from exercises of spontaneity in judgment. If this is right, then the account of spontaneity that results from an exclusive focus on judgment is not just incomplete, though it is that. It also, and more seriously, leads to the false claim, widely accepted among commentators, that all synthesis takes the form of judging.[11]

As regards its quantity, the textual evidence pointing directly to exercises of spontaneity distinct from judgment is not plentiful. But this is partly compensated by its quality, by which I mean that some of it is very prominently situated. The central piece of textual evidence comes from the opening of the Transcendental Deduction in the B-edition of the *Critique.* This means that it is located at a crucial juncture in Kant's argument. The Transcendental Deduction constitutes the heart of the Transcendental Analytic, arguably even of the entire *First Critique*. It is here that Kant seeks to prove his central contention, that there are pure concepts of the understanding, whose application to objects is known a priori, and which therefore form the basis for synthetic judgments a priori. We can expect, therefore, that a claim advanced at this point in the text plays some role in the overall argument of the Deduction, and thus matters to the main concerns of Kant's project.

Here, then, is the passage in question, taken from the first paragraph of §15, the opening section of the B-Deduction:

> The manifold of representations can be given in an intuition that is merely sensible, i.e. nothing but receptivity, and the form of this intuition can lie a priori in our faculty of representation without being anything other than the way in which the subject is affected. However, the *combination* (coniunctio) of a manifold in general can never come to us through the senses, and therefore cannot already be contained in the pure form of sensible intuition; for it is an act of the spontaneity of the power of representation, and, since one must call the latter understanding, in distinction from sensibility, all combination, whether we are conscious of it or not, whether it is a combination of the manifold of intuition or of several concepts, and in the first case either of sensible of non-sensible intuition, is an action of the understanding, which we would designate with the general title *synthesis* in order at the same time to draw attention to the fact that we can represent nothing as combined in the object without having previously combined it ourselves, and that among all representations *combination* is the only one that is not given through objects but can be executed only by the subject itself, since it is an act of its self-activity. (B129f)[12]

Kant here puts forth a general principle, which I call his Spontaneity Thesis. At a first approximation, we can formulate it as the thesis that combination cannot be given. Exactly what combination is will concern us later. For now we can simply note that the term is supposed to be equivalent to 'synthesis', and thus concerns a topic familiar from the preceding parts of the Transcendental Analytic, in particular the concluding section of the "Clue to the Discovery of all Pure Concepts of the Understanding," in which the Table of Categories is presented.[13] That Kant there calls the categories "pure concepts of synthesis" (A80/B106) makes it clear that the topic of synthesis, hence combination, is closely connected to his chief concern of establishing the objective validity of the categories.

Of combination Kant says in this passage that it is an act of the spontaneous faculty of the mind, the understanding. Hence the Spontaneity Thesis. What is important for my purposes is the fact that he goes on to distinguish between different types of combination. In particular, he distinguishes between combination "of the manifold of intuition" and combination "of several concepts."[14] Since the latter, combination of several concepts, must be judgment, the fact that he separates out the former as distinct from this implies that there must be a kind of combination which is not judgment. If we call this sensible combination, or sensible synthesis, we can take Kant to be saying that sensible synthesis constitutes a distinct kind of combination from judgment. The former is combination in intuition, the latter is the combination of concepts.

Before I present additional textual evidence, let me introduce some terminology. I want to distinguish between two ways of reading the Spontaneity Thesis. The first reading attributes to Kant the view that there is only one type of spontaneous act of the mind, and that is judgment. So on this reading, all exercises of spontaneity are acts of judgment. I call this the Single-Species View of the exercise of spontaneity:

> *Single-Species View of the Exercise of Spontaneity*: There is only one type of spontaneous act of the mind, viz. judgment.

Accordingly, a reading which attributes to Kant the Single-Species View is called a Single-Species Reading. Allison's reading, as sketched above, is a Single-Species Reading. By contrast, the reading I want to advocate takes Kant to distinguish between two distinct kinds of exercise of spontaneity. One is judgment, the other is sensible synthesis. It attributes to him what I call the Two-Species View of the exercise of spontaneity:

> *Two-Species View of the Exercise of Spontaneity*: There are two distinct types of exercise of spontaneity, viz. judgment and sensible synthesis.

Again, I call a reading that takes Kant to hold this view a Two-Species Reading. As I said above, my goal in this paper is to develop a Two-Species Reading of Kant's conception of spontaneity.

In addition to the passage from §15, there are two main sources of direct textual evidence for the claim that Kant holds the Two-Species View. One is his essay "On

the Progress of Metaphysics since Leibniz and Wolff" (written in 1793, though published only posthumously), the other is his correspondence with Jacob Sigismund Beck, a former student of Kant's who, at the time of the correspondence, was working on a book intended to make the Critical philosophy accessible to a wider audience. Consider first a passage from the Progress-essay:

> Once the subjective form of sensibility is applied, as it must be if its objects are to be taken as appearances, to objects as the forms thereof, it brings about in its determination a representation inseparable from this [i.e. the determination, T.L.], namely that of the composite. For we can represent a determinate space to ourselves in no other way than by drawing it, i.e., by adding one space to the other, and so also with time.
>
> Now the representation of a composite, as such, is not a mere intuition, but requires the concept of a compounding, so far as it is applied to intuition in space and time. So this concept (along with that of its opposite, the simple), is one that is not abstracted from intuitions, as a partial representation contained in them, but is a basic concept, and a priori at that—in the end the sole basic concept a priori, which is the original foundation in the understanding for all concepts of sensible objects.
>
> There will thus be as many a priori concepts resident in the understanding, to which objects given to the senses must be subordinated, as there are types of compounding (synthesis) with consciousness, i.e., as there are types of synthetic unity of apperception of the manifold given in intuition." (*Fortschritte*, Ak. XX, 271)[15]

Kant talks about 'composition' (*Zusammensetzung*) here, rather than 'combination' (*Verbindung*), but for our purposes the difference is irrelevant. According to the technical usage he defines in the *Critique* at B202n, combination (lat. *coniunctio*) is a genus whose species are composition (lat. *compositio*) and connection (lat. *nexus*), where composition is combination in accordance with the mathematical categories, i.e. quantity and quality, while connection is combination in accordance with the dynamical categories, the categories of relation and modality, including in particular the categories of substance-accident and causality. However, Kant's identification of 'composition' and 'synthesis' in the final sentence of the passage, along with what he says there about the pure concepts, suggests that he is using 'composition' in a wider sense, as referring to the genus.

What is of interest in this passage is that Kant refers specifically to the combination of spatial and temporal manifolds, and suggests that, in the case of space, combination is effected by "drawing."[16] While it may not be clear exactly how we should conceive of this activity, it does seem clear that it is not identical to judging. The "adding of one space to another," which presumably is what we do when we e.g. draw a line by moving a point, is clearly not something we effect by making a judgment. And this is evidence for the claim that there is a kind of exercise of spontaneity that is distinct from judging.

It might be objected that the reference to the categories—the "a priori concepts resident in the understanding" Kant talks about in the final sentence of the passage—

points in the opposite direction. Since the categories derive from the logical forms of judgment, the fact that Kant associates synthesis with the categories might be taken to suggest that all synthesis takes the form of judgment, after all. As will become clear when I discuss the notion of a sensible mode of combination below, I think this objection is based on a mistaken view of the categories. The fact that the categories derive from the logical forms of judgment does not support the identification of spontaneity with judgment.

The following passages from the correspondence with Beck also contain evidence that Kant holds the Two-Species View of the exercise of spontaneity:

> We cannot perceive composition as given. Rather, we must produce it ourselves: we must *compose*, if we are to represent anything *as composed* (even space and time). (Letter to J. S. Beck, July 1, 1794, Ak. XI, 515)[17]

> In my judgment everything depends on this: since, in the empirical concept of the *composite* the composition itself cannot be given by means of mere intuition and its apprehension, but only through the self-active combination of the manifold in intuition—that is, it can be represented only in a consciousness in general (which is not in turn empirical)—this combination and its function must be subject to rules a priori in the mind, which constitute the pure thought of an object in general (the pure concept of the understanding), by which the apprehension of the manifold must be governed, insofar as it amounts to *one* intuition; furthermore, these a priori rules constitute the condition of all possible empirical cognition of the composite (or that which belongs to it). On the common view, the representation of the composite as such figures, *as given*, among the representations of the manifold, which is apprehended, and does therefore not belong entirely to spontaneity, as however it really must, etc. (Letter to J. S. Beck, October 16, 1792, Ak. XI, 376)[18]

The first passage is a concise statement of the general principle, the Spontaneity Thesis. Again, there is a reference to space and time, the forms of intuition. So here, too, Kant seems to be saying that the representation of, say, a spatial figure requires an act of combination. Since, again, it seems plausible to hold that it takes something other than an act of judgment to represent a spatial figure, the implication is that there is a type of synthesis, of exercising spontaneity, which is distinct from judging.[19]

This is confirmed by the second passage, specifically by the repeated reference to intuition. Kant speaks of "the self-active combination of the manifold *in intuition*" (my emphasis) and of "the apprehension of the manifold […], insofar as it amounts to *one* intuition." Of particular interest is the last sentence, where Kant in effect admits that his view is counterintuitive, and thereby gives indirect support to the Two-Species View of the exercise of spontaneity. For the point about the common view, as he calls it, clearly concerns perception, the apprehension of sensory manifolds. Otherwise there would be no reason for the common view to suppose

that the composite is given. So if Kant says, of this particular case, that even though combination may appear to be given, it is in fact due to spontaneity, he must be talking about exercises of spontaneity in perception itself, independently of judgment.

3. THE MERELY RECEPTIVE MIND

While there may be textual evidence favoring the Two-Species View, this view faces a number of problems. To begin with, while it may be plausible to suppose that judgment must be spontaneous, it is less easy to see why sensible combination should be spontaneous, as well. To make a convincing case against the Single-Species Reading, we should be able to identify the philosophical motivation for Kant to hold the Two-Species View. There are, however, at least two considerations suggesting that there is no such motivation, that combination should in fact be regarded as given. First, there is what we might call the phenomenology of perception. We seem to perceive all kinds of combination: we perceive things as standing in spatial and temporal relations; we perceive objects as bearing properties; we arguably even perceive causal interactions among objects. These are all kinds of combination which must fall inside the scope of Kant's thesis, given that they are kinds of combination governed by various categories (quantity, substance, and causality, in my example). Second, the claim that sensible combination cannot be given threatens to undermine the heterogeneity of sensibility and understanding. For sensibility is defined as the receptive capacity of the mind. What is sensible, this seems to imply, cannot be spontaneous. It must be given. So if there is a distinctly sensible species of combination, the very fact of its being sensible seems to entail that it must be given. If it is not, the strict separation Kant wants to uphold between the receptive and spontaneous aspects of the mind seems to break down.

There are, then, reasons not to attribute to Kant the Two-Species View. But if we want to take seriously the textual evidence pointing in the opposite direction, we need to ask what might nevertheless prompt him to hold this view, despite the apparent pressures against such a move. This is what I want to do in what follows. So my guiding question will be what reasons Kant has for affirming the Two-Species version of the Spontaneity Thesis and for holding that no combination whatsoever, including specifically sensible combination, is given. The strategy I shall pursue is based on the following thought. If sensible combination could be given, the receptive capacity of the mind would be responsible for it. We should therefore be able to understand the idea of sensible combination without reference to spontaneity. If this is right, then a merely receptive mind, that is, a mind not possessed of a spontaneous faculty of representation, should be capable of enjoying sensible combination as well; regardless of whether this would take the same form as in the human case—what matters is that it would be possible in principle. We can therefore make progress if we reflect on what a merely receptive mind can and cannot

do. If it turns out that a merely receptive mind can in fact not enjoy sensible combination, we will have identified a reason for the Two-Species View.

The viability of this strategy depends on two conditions. First, we must have an independent grip on the distinction between a merely receptive and a finite rational mind; independent, that is, of any claims about combination. Second, we need to flesh out the notion of sensible combination. That is, we must know what counts as sensible combination. Now, it may seem that my example above shows that we already know this: sensible combination is combination in accordance with the categories. Although I will argue that this is correct, we need a more principled reason for this claim. Providing such a reason is the task of the next section. For the remainder of this section I will discuss the idea of a merely receptive mind.

To get the idea of a merely receptive mind into view, it will be helpful to start with the distinction between an intuitive and a discursive understanding; or equivalently, an infinite and a finite rational mind. An infinite mind is characterized by the fact that thinking that *p* and its being the case that *p* do not come apart. The reason is that through the act of thinking, the infinite mind creates the objects of its thought. As we can also put it, an intuitive understanding gives itself its own objects. Contrast a finite rational, or discursive, mind. Here the thought that *p* does not guarantee its own truth. The objects of finite thought are not created by it, but have independent existence. For this reason, a discursive mind cannot know through thinking alone whether the objects of its thought exist, and are as it represents them. It is this fact that, in Kant's mind, creates the need for a receptive, or sensible, capacity in a discursive mind. In addition to the capacity for thought, a finite mind needs a way of ascertaining whether the objects of its thought exist, and are as it represents them as being. This requires a receptive capacity of representation, a capacity to have representations of objects in virtue of being affected by them. Because affection by the object presupposes the object's existence, such a capacity is a capacity for knowing existence. Its receptive nature enables it to supply what a discursive understanding needs.

Based on this notion of a receptive, or sensible, capacity of representation we can form the idea of a merely receptive mind. This is a mind whose capacities are exhausted by the capacity for sensible representation. It was implicit in the foregoing that a sensible capacity is essentially object-dependent: it is a capacity to have representations of objects in virtue of being affected by them. For affection to take place, the object must be present. That is, the mind's (properly functioning) sensible capacities must be in a position to register the object's presence.

Whatever the precise nature of the representations which are generated in the subject through affection by the object, the idea of an object-dependent sensible capacity of representation is sufficient for us to ask what kind of cognition a being that has only sensible capacities is capable of, and to contrast this with the kind of cognition enjoyed by a being which is both sensible and intellectual, that is, a finite rational being with a discursive understanding. As I said, an object-dependent capacity of representation essentially depends on the presence of the object for its

exercise. It can represent only what is currently within the reach of its senses. If we add to this what Kant calls the reproductive imagination, that is, a capacity to recall previously enjoyed sensible representations, we can say that a merely receptive mind can have representations either in virtue of present affection by objects, or in virtue of past affection by objects. Moreover, in various comments about animals, Kant claims that animals are capable of forming associative connections among the representations they enjoy.[20] Since he also thinks that animals have a receptive capacity of representation, but no intellectual one, we can add the idea of connection by association to the repertoire of a merely receptive mind.

The idea of association at work here is essentially Hume's: If representations A and B are repeatedly experienced together, a disposition is formed to call to mind one of them on the occasion of the other. Thus, if the subject has, say, a perception of A, it also represents B, even though B is not a content that is currently being perceived.[21] With connection by association added to the repertoire of a merely receptive mind, we now have three basic ways in which such a mind can enjoy representations: by being affected, by recalling past affection, and by forming, and actualizing, associative dispositions.

4. SENSIBLE COMBINATION

I suggested that the strategy of investigating why Kant might hold that sensible combination cannot be given by reflecting on what a merely receptive mind is capable of depends on two conditions. The first condition was that we have a grip on the distinction between a merely receptive and a finite rational mind independently of the idea of sensible combination, and I just showed that this condition is satisfied. The second condition was that we have an account of what sensible combination actually is. I now want to sketch such an account.

For this purpose, I want to introduce the notion of a sensible mode of combination. I will argue that this notion captures the idea of sensible combination that is at work in Kant's discussion of the Spontaneity Thesis. We can take as our clue the remark from §15, quoted above, that all combination is an act of the understanding, which is called synthesis (cf. B130). If we connect this with the claim from §10, that the categories are the pure concepts of synthesis, we get the idea that the categories constitute an inventory of the various forms that combination can take. This fits well with what Kant goes on to say about the categories in the Transcendental Deduction. He argues, first, that all combination presupposes the idea of a unity; second, that this unity is the synthetic unity of apperception, and third, that the categories articulate the unity of apperception. We can surmise, therefore, that the categories are, or are at least closely related to, the forms sensible combination can take. If this is right, we can determine what sensible combination is if we can say how the categories function.

The categories derive from the logical forms of judgment, as listed in the Table of Judgments. We therefore need to begin by saying something about these. A logical form of judgment, in Kant's sense, is the way in which, in the basic case, two concepts are combined in a judgment. This sense of logical form is based on the notion of logical form familiar in traditional Aristotelian logic, as illustrated, for instance, by the square of oppositions.

To give an example, consider the judgments 'All swans are white' and 'Some swans are not white'. Because these two judgments contain the same concepts, Kant would say that they have the same matter. They differ only in respect of their logical form. In the terminology of Kant's Table of Judgment, the first is a universal affirmative categorical judgment, while the second is a particular negative categorical judgment. Because the logical form of a judgment, in this sense, specifies the way in which its component concepts are combined, I call the forms listed in Kant's table modes of concept-combination. Thus, 'universal judgment' is a mode of concept-combination, as are, for instance, 'negative judgment' and 'categorical judgment'.[22]

Kant defines the categories as "concepts of an object in general, by means of which the intuition of an object in general is regarded as determined with regard to one of the logical functions of judgment" (B128). For present purposes, we can take the term 'logical function of judgment' to be equivalent to 'logical form of judgment'.[23] To say, then, that the intuition of an object is determined with regard to one of the logical forms of judgment is to say this: given the particular logical form of a judgment, there is a fact of the matter (i.e. it is "determined") as to which features intuitions must have, if they make the judgment objectively valid. In other words, there is a fact of the matter as to what must be the case with intuitions if the judgment is to be true or false. Let me elaborate on this.

First, the definition speaks of "an object in general." This means that the categories operate at a level of generality different from that of particular judgments about particular objects. They abstract from distinctions among objects, and pertain only to what it is for judgments to be about objects at all, regardless of distinctions among kinds of objects. But this means that what is at issue here is the objective validity of judgment in general. In Kant's terminology, the categories pertain to the form, as opposed to the matter, of judgment. As a consequence, we must also abstract from the matter of intuition, if we are to consider the objective validity of judgment at this level of abstraction. What this means is that we need to be able to say something about what it takes for judgments to be true or false in light of what is given in intuition, without attending to differences among kinds of objects. We need to be able to characterize intuitions at a level which abstracts from such differences. So we must identify those features of intuitions which correspond to the logical form of a judgment. Those features, in other words, in virtue of which intuitions satisfy the very abstract description 'giving objects to the mind'.

Second, to "determine" intuitions with regard to the logical forms of judgment is to correlate sensible characteristics with modes of concept-combination. At the level of "object in general" these sensible characteristics must be formal in the sense

that they are so general as to pertain to all possible intuitions, regardless of what kinds of objects they are about. I call these formal characteristics sensible modes of combination. So the categories serve to correlate modes of concept-combination with sensible modes of combination. Given the parallel articulation of the Table of Judgments and the Table of Categories, this means that to each logical form of judgment there corresponds a sensible mode of combination.

Because of the essential heterogeneity of understanding and sensibility, sensible modes of combination have to be specified in terms belonging to the form of sensibility. Kant provides such a specification, in terms of time, the form of inner sense, in the chapter on the Pure Principles. Although we need not concern ourselves with the details of that doctrine, it will be helpful to illustrate the notion of a sensible mode of combination by means of an example. Consider the categorical form of judgment, the nexus of subject and predicate. The correlated category is that of substance and accident. Simplifying slightly, we can take this to mean that a judgment of categorical form represents its object as a substance bearing a property. But what is it for something to be a substance bearing a property? In particular, what is it for something of this form to be given in intuition? The correlated sensible mode of combination, specified in terms of the form of inner sense, time, provides an answer: A substance is that which persists through changes of its states.[24] Obviously, this answer would need much unpacking. But the basic point should be clear. A sensible mode of combination specifies, in terms of the formal properties of intuition, what it is for the object of a judgment with the correlated logical form to be given in intuition.

I will now argue that the notion of sensible combination we are interested in is exactly the notion of combination contained in the idea of a sensible mode of combination. More specifically, sensible combination, in the sense in which it is the concern of the Spontaneity Thesis, is precisely that which sensible modes of combination are modes of. I have already gestured at some supporting considerations above, when I suggested that we could glean from a consideration of §§10, 15, 16, and 20 the claim that the categories are meant to articulate the unity, which according to §15 is presupposed by any combination in the sense of the Spontaneity Thesis. But we can say more.

The main consideration concerns the cognitive function of intuition. Through intuition, Kant says, objects are "given" to the mind, while through concepts they are thought.[25] I take this to mean that thought is answerable to intuition, in the sense that a judgment is assessed as true or false in the light of what is given in intuition. Through the use of concepts in judgment, we assert that things are thus-and-so. Through intuition we ascertain whether things are as we judge them to be. The object-dependence of intuition is the feature that makes this possible. Because an intuition is had only insofar as an object is affecting the mind, intuition constitutes what Kant calls the immediate representation of this object. In intuition, we might say, objects are directly present to the mind. Therefore, intuitions reveal to us how things are with the objects on which they depend.

If judgment is answerable to intuition in this manner, then intuition must be, as it were, tailored to judgment. That is to say, the basic structure of intuition must be such that judgments can be assessed as to their truth by reference to what is given in intuition. And this must be so despite the essential heterogeneity of intuition and thought. Using Kant's term 'unity' instead of my 'basic structure' we can put the point by saying that intuitions must be so constituted that their unity is the sensible analog to the unity of judgment. Only if this condition is satisfied can intuitions play the role of giving objects to the mind. And this entails that if intuitions do play this role, they must exhibit what I have been calling sensible modes of combination. The unity of intuition, therefore, is the unity of sensible modes of combination.[26]

Further support for this claim can be derived from consideration of the goal of the Transcendental Deduction. The Deduction is intended to establish the objective validity of the categories, or pure concepts of the understanding. For the categories to be objectively valid is for them to apply to intuitions. In fact, since they are pure concepts, it is for them to apply to intuitions of necessity—which means that if the categories are objectively valid, there is no possible intuition to which they do not apply. Now, for the categories to apply to intuitions is for intuitions to have the properties the categories denote.[27] What are these properties? The answer is to be found in the definition of the categories, already quoted earlier in this section. According to this definition, the categories are concepts of an object in general, by means of which its intuition is regarded as determined with regard to the logical functions of judgment. Again, I take this to mean that a category relates an intuition to the logical form of possible judgments about it. Put differently, a category characterizes an intuition with regard to the logical form of judgments, whose content the intuition is. And as I argued above, the category does this by specifying, in its schematized version anyway, the sensible mode of combination the intuition exhibits.

We can now give the following argument. If the Transcendental Deduction is intended to establish the objective validity of the categories, and if for the categories to be objectively valid is for intuitions to exhibit sensible modes of combination, then the sense of combination at work in the principle about combination announced at the opening of the Deduction must be that of a sensible mode of combination. Therefore, the Spontaneity Thesis, the thesis that combination cannot be given, amounts to the claim that sensible modes of combination cannot be given.

5. AN OBJECTION

One might object to both of the arguments just given that they beg the question. They beg the question because in deriving the notion of sensible combination from

judgment, that is, from a capacity characteristic of finite rational minds, as opposed to merely receptive minds, they already assume that combination is something a merely receptive mind is not capable of. For if the sense of combination is such that it is tailored to the unity of judgment, it is but a small step to the thought that combination depends on capacities a merely receptive mind is by definition not possessed of. And if this is so, then the strategy I am pursuing is pointless, because the answer to the question whether a merely receptive mind is capable of representing sensible combination is already fixed.

The first thing to say in response to this objection is that the notion of combination, as I have introduced it, leaves it open whether or not combination can be given. It is true that, according to this notion, sensible combination is defined as the analog, in intuition, to the unity of judgment. But by itself, this leaves it open whether combination in this sense can be accounted for by merely receptive capacities. So far, nothing has been said about what it takes to account for the presence of sensible combination. I have only specified what sensible combination consists in.

But if this is so, then my strategy for identifying the reasons Kant has for holding the Two-Species View is not circular. If the fact that the notion of sensible combination must be understood by reference to the unity of judgment does not by itself establish that sensible combination cannot be given, then the reason why sensible combination cannot be given cannot be that it must be understood by reference to the unity of judgment.

Nonetheless, the objection gets at something important. Let me try to bring this out by retracing my steps. The goal is to understand why Kant thinks that *sensible* combination, in particular, cannot be given. I suggested that we can make headway by considering what a merely receptive mind is capable of; in particular, by considering whether a merely receptive mind is capable of representing combination. This is informative with regard to our goal for the following reason: if combination can be given, then combination is something that sensible capacities can account for. And if combination is something that sensible capacities can account for, then a merely receptive mind is capable of exhibiting it. Because of this connection, we should be able to learn something about why combination cannot be given by considering why a merely receptive mind cannot exhibit it.

We must of course be careful not to end up saying something to the effect that a merely receptive mind cannot exhibit combination because it is not spontaneous. That would defeat the purpose of my strategy. And this is what the objection highlights. But if we have, first, a conception of what a merely receptive mind is which is more substantive than the merely negative characterization in terms of its difference from a spontaneous mind, and, second, a notion of combination which does not have built into it the claim that it must be spontaneous, then we should be able to give a more informative response. We should be able to say something of the form 'A merely receptive mind cannot exhibit combination, because combination is *F*, and a merely receptive mind can only do *G*; but *G* is not sufficient to account for *F*'.

The advantage of this strategy is that it will allow us to say why the claim, noted above, that we seem to perceive things as combined all the time does not pose an objection to the Spontaneity Thesis; why it is, in other words, compatible with the Two-Species View of the exercise of spontaneity.

6. COMBINATION AND THE MERELY RECEPTIVE MIND

We are now in a position to provide reasons, on Kant's behalf, for his commitment to the Two-Species View. I will argue that there are two such reasons. The first is simply that a merely receptive mind is incapable, in principle, of enjoying sensible combination. The second is that, even if sensible combination could be given, intuition could not play the role it has in Kant's epistemology, viz. that of "giving objects to the mind"; that is, thought could not be answerable to intuition. I will discuss these in turn.

First, then, let us turn to the contention that a merely receptive mind is in principle incapable of enjoying sensible combination. This amounts to saying that a capacity for object-dependent representation, on its own, cannot account for the presence of sensible modes of combination. To see why this is so, consider the following. Object-dependent representation, as I have defined it, is representation in virtue of affection by an object. In the fundamental case, it is representation in virtue of current affection. That is, the subject entertains a representation only because, and as long as, something is affecting it. Clearly, the content of such a representation is that which does the affecting, the object.[28] Now, if all the representations of which a merely receptive mind is capable are of this kind, then clearly these representations cannot exhibit sensible modes of combination. For a sensible mode of combination is, in essence, a particular kind of unity among representations. It is the unity apparent, for instance, in the idea that distinct representations, occurring at different times, are representations of one and the same persisting object. Or again, this unity is operative in the idea that numerically and qualitatively distinct objects, perceived on different occasions, are all instances of a single kind. Or finally, it is there in the idea that there are objects, and that an object is the kind of thing that has properties. Note that these are meant to be examples of the unity constitutive of sensible modes of combination. They do not amount to an exhaustive characterization. But they should suffice for conveying a sense of the kind of unity at issue.

The representations of a merely receptive mind do not exhibit this kind of unity. They fail to exhibit it, because object-dependent representation on its own lacks the resources to generate it. To see this, consider what resources are available to object-dependent representation. As we saw, in the basic case, the content of the representations characteristic of a merely receptive mind is exhausted by what is currently affecting the mind. Representations change as affections change. But this

means that there is no space here for awareness of any connections between the changing contents. There is, we might say, a succession of contents, but no awareness of this succession. Awareness is restricted to the changing contents, and does not include the fact that they are changing, nor the awareness of any other relations obtaining between them. As Kant puts it, such awareness is "in itself dispersed" (B133).

It does not change matters if we add to the repertoire of a merely receptive mind capacities for reproductive imagination (memory) and associative dispositions (see above, §3). Reproductive imagination is the capacity to recall previously entertained contents. But if these contents did not include the awareness of the relevant kind of unity when they were first received, they will also lack it when they are recalled in imaginative reproduction.

Connection by association might seem to be more promising. But consider what this mechanism, as I have introduced it, really amounts to. The idea of connection by association is that if representations A and B are repeatedly experienced together, a disposition is formed to call to mind one of them on the occasion of the other. Thus, if the subject has, say, a perception of A, it also represents B, even though B is not a content that is currently being perceived.

There are several reasons why such a capacity cannot generate sensible modes of combination where there were none to begin with. First, the kind of unity that accrues to representations in virtue of associative connection is obviously far less complex than the unity of sensible modes of combination. As Hume makes clear in his discussion of this capacity, connection by association tracks spatio-temporal contiguity among perceived contents. It connects things that repeatedly occur at roughly the same time, and in roughly the same location. But it is clear that the unity at issue in the notion of a sensible mode of combination is a much more complex affair.

More importantly, however, connection by association operates, as it were, behind the subject's back. At least this is so in the case of a merely receptive mind. What associative dispositions accomplish is that some representation B occurs whenever representation A occurs, even when there is nothing present to generate B by virtue of affection. But this connection is not *for* the subject. The subject is not aware of the fact that B occurs whenever A occurs. It experiences first A, and then B (in a case of temporal contiguity, that is). It does not experience that there is first A, and then B. In other words, it does not experience the way in which A and B are related. It does not apprehend their unity.

If this is right, then however complex the associative dispositions of a merely receptive mind may be, its representations will not exhibit sensible modes of combination. It follows that if the notion of combination at issue in the Spontaneity Thesis is that captured by the idea of a sensible mode of combination, a merely receptive mind is not capable of representing combination. The representation of combination does not belong to its repertoire.

7. THE FUNCTION OF INTUITION

I said that there is a second reason for Kant to hold the Two-Species View, one that derives from the cognitive function of intuition. The cognitive function of intuition is to "give" objects to the mind. I have interpreted this as saying that thought is answerable to intuition: Other things being equal, judgments are assessed as true or false in light of what is given in intuition.

Now, for intuition to be able to serve this function, it must be possible for judgments to "correspond" to intuition.[29] That is, it must be possible for what is given in intuition to be as a judgment says it is, or not to be this way. Let me capture this point by saying that judgment and intuition must have the same unity. Again, the point is just this: if it is possible to evaluate a judgment as to its truth in light of what is given in intuition, then intuition must have a structure that allows for this kind of assessment. If a judgment represents some *a* as being *F*, then what is given intuition must, in principle, be such as to show that either *a* is *F* or *a* is not *F*. Again, the point is meant to be one about the basic structure, or unity, of intuition. It is compatible with the fact that the content of an intuition is generally more determinate than the content of a judgment.

I argued above that for intuitions to exhibit combination is for intuitions to exhibit sensible modes of combination. And for intuitions to exhibit sensible modes of combination is for them to have the same unity, the same basic structure, as judgment. For a sensible mode of combination is defined as the analog in intuition to the logical form of judgment. And the logical form of judgment constitutes the unity of judgment, in the sense that matters for our purposes.[30]

Now assume, for the sake of argument, that combination can be given. Then the fact that intuitions exhibit sensible modes of combination would itself be something that can be given in intuition. Assume, further, that it is in fact given in intuition; moreover, that it is given in the case of all intuitions. In other words, the assumption is that all intuitions exhibit the unity of judgment, and that they do so as a result of affection.

In such a scenario, it would be a contingent fact that intuitions possess the unity of judgment. They might, at least in principle, fail to possess this unity. And this means that intuition cannot serve its cognitive function of being that to which thought is answerable for its truth or falsity. For if intuition is to serve this function, it must not be a contingent matter that intuitions possess the unity of judgment. It must be a matter of necessity.[31] That is, it must be something that can be known *a priori*. This follows from the fact that being truth-evaluable is constitutive of judgment, in conjunction with the fact that, for Kant, our only access to objects it through intuition. Let me elaborate.

Because our only access to objects is through intuition, judgments must be evaluated as to their truth in light of what is given in intuition. But if it is constitutive of judgment that it be truth-evaluable, it follows that it is constitutive of judg-

ment that it "correspond to" intuition, in the sense that what it is for a judgment to be true is in part defined in terms of the intuitions that would make it true. And this of course requires that intuition is such as to be able to make a judgment true or false. Which is just the requirement that intuition exhibit the unity of judgment.

It follows that if judgment is possible, intuition necessarily possesses the unity of judgment. So the possibility of truth-evaluable representation—cognition (*Erkenntnis*), in Kant's use of that term—requires that all possible intuitions possess the unity of judgment. Put differently, in a being that possesses the capacity for judgment the unity of judgment must be a constitutive feature of the intuitions such a being enjoys. And this entails that it cannot be a contingent fact that intuitions possess this feature. It cannot be a fact which may or may not obtain. Therefore, that intuitions possess this unity cannot be something that is given.

The point can also be put as follows. To say that sensible combination is given is to say that it is the content of some range of actual intuitions. But to say that combination is constitutive of intuition is to say that combination enters into the very possibility of intuition. That is, combination is definitive of what it is for something to be a possible intuition. But if this is so, then whether intuition exhibits combination cannot depend on what is or is not given in actual intuition. Combination, we might say, must be in place already, "prior" to any actual acts of intuiting. It must be *a priori* in Kant's sense: a necessary and strictly universal feature of intuition.[32] So, again, the conclusion is that if combination were given, it would not have the right modal force.

8. THE PURE FORM OF SENSIBILITY

In each of the preceding two sections I gave an argument, on Kant's behalf, for the thesis that sensible combination cannot be given. The first argument is a simple *modus tollens*. If combination could be given, a merely receptive mind would be capable of it. But consideration of the notion of a merely receptive mind shows that such a mind is incapable, in principle, of representing combination. So combination cannot be given.

The second argument starts from the observation that sensible combination is a constitutive feature of intuition, and contends that if combination were given, it would not be constitutive of intuition. Put differently, the argument is that it cannot be a merely contingent fact that intuition possesses the unity of judgment. But if combination were given, it would be a merely contingent fact.

If this is right, we have good reason to think that Kant interprets the Spontaneity Thesis along the lines of the Two-Species View. However, the Spontaneity Thesis contends not just that combination cannot be given. It takes this claim to entail that combination must be "produced"; that is, that combination must be a product of spontaneity. One might object that, while my arguments establish that

Kant has good reason to hold that combination cannot be given, they do not show that combination must be produced. What we lack is an argument to the effect that these two alternatives exhaust the available possibilities.

Put in this general way, this objection goes to the heart of Kant's "Zwei-Stämme-Lehre," his doctrine that there are two, and only two, sources of cognition. This is too large a topic to be treated within the confines of this paper. But we can give the objection a more specific focus, one which arguably makes it stronger, as well.

Central to Kant's doctrine in the *Critique* is the claim that there is a pure form of sensibility. This idea seems to contain everything we need to undermine my arguments in support of the thesis that sensible combination cannot be given. If so, then these arguments do not establish that combination must be a product of spontaneity. They show at most that combination belongs to the pure form of sensibility, as opposed to its (empirical) matter. Obviously, this would support the case for the Single-Species Reading of the Spontaneity Thesis.

Let me spell this out. We can take the thesis that there is a pure form of sensibility to mean that there are constitutive properties of intuition, which can be known independently of ("prior to") any particular act of intuiting. Thus, to say that space and time constitute the pure form of sensibility would be to say that intuitions necessarily have spatio-temporal properties, which pertain to them independently of what is apprehended in any particular act of intuiting.

Now, part of the point of calling space and time forms of sensibility is that these properties pertain to intuition independently of the understanding. They are forms of sensibility, not of the understanding, and in accord with the Two Sources Doctrine, this seems to imply that intuitions exhibit these forms independently of any involvement of the understanding. The fact that Kant thinks that the schematism is needed to relate the categories to intuition supports this independence claim. The categories need to be schematized, because by themselves they bear no relation to the form of sensibility. Forms of the understanding, i.e. pure concepts, and forms of sensibility are, as Kant puts it, completely heterogeneous.[33]

So, assuming that it can be established that what the pure form of sensibility accounts for is the right kind of combination, it seems that a pure form of sensibility possesses sufficient independence from the understanding to block the move from 'combination cannot be empirically given' to 'combination must be spontaneous'. Discharging this assumption should be relatively straightforward. Again, we may look to the doctrine of the schematism, and its implementation in the chapter on the pure principles.

The pure principles of the understanding relate the categories to the pure form of inner sense, time.[34] They specify the way in which intuitions instantiate the categories simply in virtue of the fact that they possess the pure form of inner sense. As I argued above, the categories signify sensible modes of combination. Being derived from the logical forms of judgment, they embody the unity of judgment. So intuitions that instantiate the categories exhibit the same unity as judgment. It follows that if intuitions instantiate the categories in virtue of their form, the fact

that intuitions exhibit combination is due to the pure form of sensibility, rather than the spontaneity of the understanding.

In response to this objection, I want to make two points. First, I will argue that while the objection may have bite against the first argument I gave, it leaves the second argument untouched. That is, it has no force against the claim that the correspondence of judgment to intuition must be non-contingent. Second, I will argue that the objection highlights an important feature of Kant's conception of sensibility. This feature is connected to the distinction, explicitly drawn in a famous footnote at B160f, between the form of intuition and formal intuitions. I shall argue that we understand Kant's conception of the pure form of sensibility only if we understand this distinction. And once we understand this distinction, we will see that the objection loses its force.

Let me begin, then, with the point about the non-contingent correspondence of judgment to intuition—or rather, for our purposes, intuition to judgment. I argued that Kant holds that combination cannot be given partly for the reason that, if it were, it would be a merely contingent fact that intuition corresponds to judgment. The suggestion that combination in intuition is accounted for by the pure form of sensibility might seem to address this argument, because the pure form of sensibility is *a priori*, not empirical. This is to say that the relevant features are necessary and universal. It seems, therefore, that if sensible combination is due to the pure form of sensibility, the correspondence between intuition and judgment is non-contingent.

To make the case that this argument does not go through, I want to turn our attention to a comment Kant makes in §27, at the end of the B-Deduction. The comment occurs in the context of a discussion of how the necessary correspondence between experience and the categories can be explained. Before I turn directly to the comment, however, I want to point out that this is exactly the topic with which we are concerned. Experiencedepends on empirical intuition, while the categories stand for sensible modes of combination, i.e. for the sensible analog to the unity of judgment. So to explain how experience corresponds to the categories is in part to explain how intuition corresponds to judgment. More specifically, it is to explain why intuitions necessarily exhibit the unity of judgment.

Now, Kant says that this necessary correspondence can be explained in only one of two ways. Either experience makes the categories possible, or the categories make experience possible. He rules out the first option, because that would turn the categories into empirical concepts. Consequently, the necessary correspondence is explained by the fact that the categories "contain the ground of the possibility of all experience in general" (B167). He then considers, and rejects, a third alternative. I want to suggest that what he says about this third alternative *mutatis mutandis* applies to the claim that sensible combination is due to the pure form of sensibility.

The third alternative Kant considers, in the form of a potential objection, is what he dubs a "system of preformation." In such a system, the categories do not

make experience possible, nor is there a dependence in the opposite direction. Rather, experience and the categories are completely independent of one another, but are nevertheless in agreement. On this view, the categories have the status of subjective dispositions: they reflect not objective requirements of cognition, but the way our minds cannot help but operate. They express, as Kant puts it, a subjective necessity.

Kant rejects this alternative because it does not do justice to the necessity that characterizes the pure concepts, and it is worth quoting the relevant passage in full:

> The concept of cause, for instance, which expresses the necessity of an event under a presupposed condition, would be false if it rested only on an arbitrary subjective necessity, implanted in us, of connecting certain empirical representations according to such a rule of relation. I would not be able to say that the effect is connected with the cause in the object (that is, necessarily), but only that I am so constituted that I cannot think this representation in any other way than as so connected […]. (B168)[35]

And this, he concludes, leads directly to skepticism; specifically to a Humean skepticism about the existence of necessary connections.

The first thing to note about this passage is that it turns on the idea of a non-contingent agreement between cognition and its object. On the alternative Kant is rejecting here, there is agreement, but this is a merely contingent fact. He suggests that this means that the source of the agreement is in the wrong place. It lies, in the terms of the passage, in the subject, rather than in the object, as it should. If we spell this out, the claim is that the reason why my judgment that *a* is *F* corresponds to the object, in the sense that it is either true or false of the object, must be that *a* is *F* (or that *a* is not *F*, as the case may be), not that I cannot help but judge in this manner. If I cannot help but judge in this manner, the fact that my judgments take this form does not rest on the right reason. It rests on what is, as far as cognition is concerned, an extraneous factor.

I said that this argument can be made to apply to the thesis that combination in intuition is neither given nor spontaneous, but rather due to the pure form of sensibility, which was the core of the objection I raised. The point of contact lies in the fact that the forms of sensibility, like subjective dispositions of thought, constitute a merely subjective requirement. They are merely subjective in the sense that they do not derive from the concept of an object of cognition. And this means that, although they are a priori, they are not necessary in the required sense.

That Kant recognizes the possibility of forms of sensibility other than ours is evidence for this claim. It shows that the fact that space and time are our forms of sensibility is a fact about human nature. And this means, in the first instance, that it does not derive from the objective requirements of cognition.[36]

If this is right, it follows that if sensible combination is due to the form of sensibility, the contingency-argument from §7 applies. The objection gets no grip on this argument. As a consequence, the doctrine of the pure form of sensibility does

not constitute a third alternative, which would block the move from 'combination cannot be given' to 'combination is spontaneous'.

At this point, it might be useful briefly to turn back to Allison, whose interpretation of Kant's Spontaneity Thesis I sketched in §1 above. For in light of the argument just given, we can see that a position like Allison's, too, is in danger of giving "the skeptic what he most desires" (B168), and that this is so regardless of whether such a position includes an appeal to the pure form of sensibility. The point is that if spontaneity is tied exclusively to judgment, then whatever structure intuition is said to have, this structure will not reflect objective requirements of cognition, but rather merely our subjective constitution. Now, Allison holds that intuition does not "give" objects to the mind unless it is absorbed into judgment. Which means that what is given in *mere*, pre-judgmental intuition is mere inchoate data. But if this is so, then the processing of intuitions into judgments starts to look like a subjective imposition, even if the structure of judgment itself derives from the objective requirements of cognition. For what goes missing in such a picture is the "correspondence" of judgment to intuition, the need for judgments to be answerable to what is given in intuition.

9. CONSTRUCTION IN INTUITION

I said that the objection discussed in the previous section brings to the fore an important feature of Kant's conception of sensibility, which is connected to the infamous distinction between the form of intuition, on the one hand, and formal intuitions, on the other. A full treatment of this distinction and the theory of sensibility on which it is based would require discussion of Kant's philosophy of mathematics, which is beyond the scope of this paper. What I propose to do instead is to provide a sketch of the notion of construction in intuition, which lies at the heart of his philosophy of mathematics. This will shed light, first, on how Kant conceives of the pure form of sensibility, and second, on what it might mean for sensible combination to be the product of spontaneity. Furthermore, it will enable us better to understand the reference to "drawing" a space in the passage from the Progress-Essay quoted in §2, above. As we shall see, the main idea is that the possession, by empirical intuitions, of spatio-temporal form depends on exercises of spontaneity. Obviously, if this is right, then Kant's own theory of sensibility lends support to, or is at least compatible with, the Two-Species View of the exercise of spontaneity. My purpose is merely to point out a number of connections, in order to suggest that the reading of the Spontaneity Thesis I am advocating fits well with Kant's theory of sensibility. To establish these points by argument would take substantially more work.

I shall first give a brief discussion of the footnote at B160f., before turning to the notion of construction in intuition. In §26 Kant attempts to complete the argument

of the Transcendental Deduction by showing that the categories govern empirical intuition, that is, perception. If this can be shown, the objective validity of the categories has been demonstrated, because it has been established that nothing can be an object of perception which does not fall under the categories. The argument turns on the notion of the pure form of sensibility. In a nutshell, it is this: empirical intuitions are necessarily given in accordance with the form of sensibility; the form of sensibility is governed by the categories, because it exhibits categorial unity; therefore, empirical intuitions exhibit categorial unity as well, and are likewise governed by the categories.

Obviously, this argument goes through only if it is true that the form of sensibility exhibits categorial unity. In the following passage Kant argues that it does:

> But space and time are represented a priori not merely as *forms* of sensible intuition, but as themselves *intuitions* which contain a manifold, and are therefore represented with the determination of the *unity* of this manifold in them (see the Transcendental Aesthetic). Thus *unity of the synthesis* of the manifold, without or within us, and consequently also a *combination* to which everything that is to be represented as determined in space or in time must conform, is given a priori as the condition of the synthesis of all *apprehension*—not indeed in, but with these intuitions. (B160f)[37]

To the first sentence he appends a footnote whose central claim, for our purposes, is this:

> Space, represented as *object* (as is indeed required in geometry), contains more than mere form of intuition; it contains, namely, *comprehension* of the manifold, given in accordance with the form of sensibility, into an *intuitive* representation, so that the *form of intuition* gives only a manifold, while the *formal intuition* gives unity of representation. (B160n)[38]

Let me simply state what I take to be the gist of the argument. We might put the point like this: Calling space and time forms of intuition is ambiguous. One thing we might mean by this claim is that space and time contain a structure, which accounts for the manifoldness of intuition. The idea is that e.g. being in different moments in time is a criterion of distinctness for the elements of intuition. It is what enables us to speak of what is given in intuition as being a manifold. However, another thing we might mean by calling space and time forms of intuition is that empirical intuitions necessarily have spatio-temporal properties; that they necessarily represent their contents as being in space and time. And to represent something as being in space and time, Kant suggests, is to represent it as exhibiting categorial unity.

This can be brought out by representing space itself "as an object," as Kant puts it in the footnote. To represent space as an object is, I take it, to represent particular spatial figures. For that is what geometers do. This contrasts with thinking of space as an abstract structure, a system of relations, which may be variously instantiated.

Now, in representing particular spatial figures, that is, in representing space "as an object" in the way the geometer does, we represent space as exhibiting categorial unity. When we do this, we represent what Kant in the footnote calls "formal intuitions." I take the crucial point here to be that when, in empirical intuition, we represent things as being in space, we do exactly the same; that is, we also represent space as exhibiting categorial unity. And we therefore represent what is in space as exhibiting categorial unity as well.

We can also put this point by saying that space functions as the form of empirical intuition in the same way, at least in the relevant respect, as it functions in formal intuitions. Or rather, formal intuitions highlight a feature of space which is also present in the formal properties of empirical intuition, but which we lose sight of when we think of space merely as what Kant here calls a "form of intuition," viz. an abstract system of relations, of mere manifoldness. And this feature is the presence of categorial unity.

Why the representation of concrete spatial figures exhibits categorial unity, Kant does not say here. The argument, in a nutshell, is that we can represent spatial figures only by constructing them. And to construct a figure is to perform a synthesis in accordance with the categories of quantity. I do not want to discuss this argument here. Instead, I want to say something about the notion of construction.[39]

Construction, we might say, is the step that takes us from the mere manifoldness of space, which "lies ready a priori in the mind" (A20/B34), to actual intuitions with spatial properties. It takes us from a potentiality to an actuality. Qua mere manifoldness, space is only a potentiality. And this is what depends on sensibility, what "lies ready a priori in the mind." But for this potentiality to be actualized, acts of construction are required. And acts of construction are acts of the understanding. They are acts of synthesis in accordance with the categories (specifically, the categories of quantity).

Construction, therefore, is the kind of exercise of spontaneity which effects sensible combination. It is distinct from judgment, the combination of concepts, but it cannot be identified with affections of sensibility. It is, rather, a distinct kind of exercise of the spontaneous capacity of the mind.

If this is right, it turns out that Kant's commitment to the Two-Species View is underwritten by his theory of mathematical construction, suitably extended to cover not just the categories of quantity, but the other categories as well. Some indication that this is indeed how Kant sees things is provided by the passages I quoted at the beginning of this paper as textual evidence that Kant is committed to the Two-Species View of the exercise of spontaneity. Both in the passage from the Progress-Essay, and in the first passage from the correspondence with Beck, Kant connects the statement of the Spontaneity Thesis with construction in space. He specifically mentions the drawing of a figure, as the paradigm case of construction, and claims that this is a type of act, which requires an exercise of spontaneity.

10. SENSIBLE SYNTHESIS AND THE UNDERSTANDING

Even if it is true that sensible synthesis is modeled on mathematical construction and therefore distinct from judgment, one might wonder why the exercise of the mind in sensible synthesis should be attributed to the understanding. The very fact that sensible synthesis is distinct from judgment seems to render this attribution doubtful, since the understanding is defined, after all, as the capacity for judgment. In conclusion, I want to make two brief points in response to this query, although again I will not provide much argument. First, it should be pointed out that, properly speaking, sensible synthesis draws into operation not just the understanding, but also the productive imagination; or, as Kant puts it at one point, spontaneity "under the title of imagination."[40] Given that the imagination is defined as the capacity to represent intuitions apart from current affection, this might go some way towards explaining the specifically sensible character of sensible synthesis. But it does not, at least not by itself, answer our question, viz. why this activity should nevertheless be attributed to the understanding.

Second, the unity of sensible synthesis is, as I have been putting it, the unity of judgment. More precisely, the unity of sensible synthesis, whose presence in intuition requires the exercise of spontaneity, is the sensible analog of the unity of judgment. It is important to see that there is what we might call a top-down dependence here: The unity of sensible synthesis takes the form it does *because* it is an analog to the unity of judgment. The unity of judgment is prior in the order of explanation. And this fact might take us a little further towards legitimating the attribution of sensible synthesis to the faculty that is defined as a capacity for judgment. The understanding, we might say, is the capacity to unify representations in a certain way. More specifically, it is the capacity to confer on representations the unity of judgment. If we start with this abstract characterization, we can go on to say that there are two ways of doing this. One is discursive, the other intuitive. One is the combination of concepts in judgment, the other is the construction of concepts in intuition. In the former case, possible intuitions are represented, through concepts, as exhibiting the unity of judgment.[41] In the latter case, this unity is generated in actual intuitions through the construction of pure concepts. As Kant puts it in a well-known passage: "The same function which gives unity to the various representations *in a judgment* also gives unity to the mere synthesis of various representations *in an intuition*" (A79/B104).[42]

11. CONCLUSION

I hope to have provided some reasons for thinking that when Kant puts forth the Spontaneity Thesis, he is committed to the Two-Species View of the exercise of spontaneity. It has emerged that a full-scale defense of this claim requires close con-

sideration of Kant's theory of sensibility as well as the concept of construction in intuition, which Kant discusses in the context of his philosophy of mathematics. To fully make the case for the Two-Species View, it has to be shown how the notion of construction, which in the case of mathematics involves only the categories of quantity, can be extended to the other categories in Kant's Table. A full discussion of this topic would require a detailed reading of the second half of the *Transcendental Analytic*. In addition, consideration is needed of how construction, or some analog to it, operates in empirical intuition. This is the theory of what Kant calls the synthesis of apprehension (cf. the passage from B160f quoted above). Only a worked-out theory of the synthesis of apprehension will be able to show whether Kant can maintain the Two-Species View without undermining the heterogeneity of sensibility and understanding; in particular, without undermining the receptivity of sensibility. But these are topics for other papers. My aim here has been the more modest one of sketching the basic interpretative framework within which such an overall reading of the *First Critique* might be situated.

At the outset of this paper I suggested that, at least in some of their recent work, the question of how properly to conceive the relation between sensibility and understanding has occupied contemporary philosophers working in a broadly Kantian vein. I briefly sketched the two sides of a debate over the question of what kind of unity intuitions must have if thought is to be answerable to them. One side holds that this requires an involvement of the full resources of the understanding in sensibility itself, and that this requirement is met because intuitions are propositional in structure, which means that the having of intuitions involves the exercise of conceptual capacities. By contrast, the other side holds that no such involvement of the understanding is needed: intuitions possess the requisite unity on account of the self-standing nature of the faculty of sensibility—one that it possesses on its own bat, without any sort of reliance on the understanding. But if what I have argued in this paper is right, it appears that the two parties to this debate overlook a third possibility—one that seems both philosophically viable and more faithful to Kant.

For we can now see that Kant's conception of spontaneity not only contains the material for elaborating a genuine alternative to these two positions, but that it is one which arguably avoids the shortcomings of either. In fact, we can characterize Kant's alternative as granting that both positions reflect a genuine insight, but that they each end up distorting this insight in a complementary fashion. For it has emerged that, if intuition is to have the unity needed for thought to be answerable to it, there must be some kind of involvement of the understanding in sensibility. The unity of intuitions, that is, cannot be completely independent of the requirements of cognition through concepts. On the other hand, we have seen that Kant does not take this requirement to imply that intuition must itself be conceptual all the way down. Rather, he seeks to satisfy the requirement by describing the unity of intuition as a sensible analog to the unity of judgment. The point is that, although the "correspondence" between intuition and judgment is non-contingent,

the genuinely sensible character of intuition (hence the heterogeneity of sensibility and understanding) is duly respected and fully preserved.

NOTES

For comments and suggestions I thank Jim Conant, David Holiday, Michael Kremer, and Tom Lockhart.

1. "[…] Leibniz *intellectualized* the appearances, just as Locke totally *sensualized* the concepts of the understanding […]. Instead of seeking two entirely different sources of representation in the understanding and sensibility, which could judge about things with objective validity *only in conjunction*, each of these great men holds on only to one of them, which in his opinion is immediately related to things in themselves, while the other does nothing but confuse or order the representations of the first" (A271/B327).—Except for the *Critique of Pure Reason,* which is cited in the customary way, references to Kant's works are to the so-called Academy edition (= Ak.), by volume and page number: *Kants gesammelte Schriften,* ed. Königlich Preußische Akademie der Wissenschaften, (Berlin: de Gruyter and predecessors 1902ff). Translations are largely my own, though based on the *Cambridge Edition of Kant's Works*, edited by Paul Guyer and Allen Wood, and, in the case of the *First Critique,* Immanuel Kant, *Critique of Pure Reason,* trans. Norman Kemp Smith, revised ed., (New York: Macmillan, 2003).
2. Wilfrid Sellars, "Empiricism and the Philosophy of Mind," in his *Science, Perception and Reality,* London: Routledge 1963.
3. Cf. W.V.O. Quine, "Two Dogmas of Empiricism," *From a Logical Point of View,* 2nd ed., (New York: Harper & Row, 1961).
4. The most prominent advocate of this position is John McDowell. See his *Mind and World,* (Cambridge: Harvard UP, 1996), and "Having the World in View: Sellars, Kant, and Intentionality," *Journal of Philosophy* 95 (1998), 431–491. It should be mentioned that in a recent paper McDowell has announced a change in his view. He no longer holds that sensory experience must be propositionally structured, although he continues to maintain that sensory experience involves the exercise of conceptual capacities. See McDowell, "Avoiding the Myth of the Given," paper delivered at the conference "The Problem of Non-Discursive Thought from Goethe to Wittgenstein II," held at the University of Chicago in October 2007. McDowell's new position is considerably closer to the view I am going to attribute to Kant in this paper than his previous position. However, to determine exactly how close it is, and how it differs, would require a more detailed discussion than I am able to give here.
5. A prominent advocate of this position is Robert Hanna. See his *Kant and the Foundations of Analytic Philosophy,* (Oxford and New York: Oxford UP, 2001), and for a more concise exposition his "Kant and Nonconceptual Content," *European Journal of Philosophy* 13 (2005), 247–290. The following passage, taken from the more recent paper, illustrates Hanna's view: "[…] it is clear that this priority of intuition to thought is both cognitive and semantic. Thus an act of intuition can occur without any corresponding act of conceptualization, and also an intuition can be objectively valid independently of any concept" ("Kant and Nonconceptual Content," 259).
6. "Unsre Erkenntniß entspringt aus zwei Grundquellen des Gemüths, deren die erste ist, die Vorstellungen zu empfangen (die Receptivität der Eindrücke), die zweite das Vermögen, durch diese Vorstellungen einen Gegenstand zu erkennen (Spontaneität der Begriffe); durch die erstere wird uns ein Gegenstand *gegeben*, durch die zweite wird dieser im Verhältniß auf jene Vorstellung (als bloße Bestimmung des Gemüths) *gedacht.* […] Wollen wir die *Receptivität* unseres Gemüths, Vorstellungen zu empfangen, so fern es auf irgend eine Weise afficirt wird, Sinnlichkeit nennen: so ist dagegen das Vermögen, Vorstellungen selbst hervorzubringen, oder die *Spontaneität* des Erkenntnisses der Verstand."
7. "We can trace all acts of the understanding back to judgment, so the understanding in general may be regarded as a capacity to judge" (A69/B94). Part of Kant's point here is that, because con-

cepts serve to cognize objects only when they are applied in judgments, a capacity for thought, or cognition through concepts, *is* a capacity for judgment.

8. See Allison's papers "On Naturalizing Kant's Transcendental Psychology" and "Kant's Refutation of Materialism," both in Allison, *Idealism and Freedom: Essays on Kant's Theoretical and Practical Philosophy,* (Cambridge and New York: Cambridge UP, 1996), as well as his book *Kant's Transcendental Idealism,* 2nd ed., (New Haven and London: Yale UP, 2004). Another prominent represeentative of this approach is Robert Pippin, "Kant on the Spontaneity of Mind," in Pippin, *Idealism as Modernism: Hegelian Variations,* (Cambridge and New York: Cambridge UP, 1997), 29–55.
9. Allison, "On Naturalizing Kant's Transcendental Psychology," 62.
10. Allison, "Kant's Refutation of Materialism," 94.
11. Besides Allison and Pippin, commentators who accept this claim include Jonathan Bennett, *Kant's Analytic,* (Cambridge and New York: Cambridge UP, 1966); Graham Bird, *The Revolutionary Kant*, (La Salle, Illinois: Open Court, 2006); Wolfgang Carl, *Die transzendentale Deduktion der Kategorien in der ersten Auflage der Kritik der reinen Vernunft,* (Frankfurt/M.: Klostermann, 1992); Paul Guyer, *Kant and the Claims of Knowledge,* (Cambridge and New York: Cambridge UP, 1987); Dieter Henrich, *Identität und Objektivität,* (Heidelberg: Winter, 1976); H. J. Paton, *Kant's Metaphysic of Experience*, (London: Allen & Unwin, 1936); P. F. Strawson, *The Bounds of Sense*, (London: Methuen, 1966); and Robert Paul Wolff, *Kant's Theory of Mental Activity*, (Gloucester, MA: Peter Smith, 1973).—A non-judgmental exercise of spontaneity is recognized by Manfred Baum, "Erkennen und Machen in der Kritik der reinen Vernunft," in: Bernhard Tuschling (ed.), *Probleme der Kritik der reinen Vernunft: Kant-Tagung Marburg 1981*, (Berlin and New York: de Gruyter, 1984), 161–177; as well as Beatrice Longuenesse, *Kant and the Capacity to Judge,* (Princeton: Princeton UP, 1998). The view I develop in this paper is in some respects close to Baum's, although my argument for a non-judgmental exercise of spoontaneity differs from his. Longuenesse's view is too complex for me to discusss within the confines of this paper. Suffice it to say that while I agree with her that sensible synthesis is more important to Kant's doctrine than is usually recognized, her way of developing this point makes it impossible for sensible synthesis to play the role it must have if I am right about the motivation for Kant's acceptance of a non-judgmental exercise of spontaneity. For the latter, see §§6–8 below.
12. "Das Mannigfaltige der Vorstellungen kann in einer Anschauung gegeben werden, die bloß sinnlich, d.i. nichts als Empfänglichkeit ist, und die Form dieser Anschauung kann a priori in unserem Vorstellungsvermögen liegen, ohne doch etwas andres als die Art zu sein, wie das Subject afficirt wird. Allein die *Verbindung* (coniunctio) eines Mannigfaltigen überhaupt kann niemals durch Sinne in uns kommen und kann also auch nicht in der reinen Form der sinnlichen Anschauung zugleich mit enthalten sein; denn sie ist ein Actus der Spontaneität der Vorstellungskraft, und da man diese zum Unterschiede von der Sinnlichkeit Verstand nennen muß, so ist alle Verbindung, wir mögen uns ihrer bewußt werden oder nicht, es mag eine Verbindung des Mannigfaltigen der Anschauung oder mancherlei Begriffe, und an der ersteren der sinnlichen oder nichtsinnlichen Anschauung sein, eine Verstandeshandlung, die wir mit der allgemeinen Benennung *Synthesis* belegen würden, um dadurch zugleich bemerklich zu machen, daß wir uns nichts als im Object verbunden vorstellen können, ohne es vorher selbst verbunden zu haben, und unter allen Vorstellungen die *Verbindung* die einzige ist, die nicht durch Objecte gegeben, sondern nur vom Subjecte selbst verrichtet werden kann, weil sie ein Actus seiner Selbstthätigkeit ist."
13. Kant seems to use the term 'combination' (*Verbindung*) to refer both to the activity of synthesizing and to its result, the representation of a unified manifold. For the sake of simplicity, I will not usually track this distinction. Nothing in my argument, however, hangs on this.
14. That he speaks of "sensible" and "non-sensible" intuition when he further differentiates between two types of combination in intuition is regarded by most commentators as a slip of the pen. What he has in mind, presumably, is the distinction between empirical and non-empirical intuition.
15. "Die subjektive Form der Sinnlichkeit, wenn sie, wie es nach der Theorie der Gegenstände derselben als Erscheinungen geschehen muß, auf Objekte, als Formen derselben, angewandt wird, führt in ihrer Bestimmung eine Vorstellung herbei, die von dieser unzertrennlich ist, nämlich die des

Zusammengesetzten. Denn einen bestimmten Raum können wir uns nicht anders vorstellen, als, indem wir ihn ziehen, d. i. einen Raum zu dem andern hinzutun, und eben so ist es mit der Zeit bewandt.

Nun ist die Vorstellung eines Zusammengesetzten, als eines solchen, nicht bloße Anschauung, sondern erfordert den Begriff einer Zusammensetzung, so fern er auf die Anschauung in Raum und Zeit angewandt wird. Dieser Begriff also (samt dem seines Gegenteils, des Einfachen) ist ein Begriff, der nicht von Anschauungen, als eine in diesen enthaltene Teilvorstellung abgezogen, sondern ein Grundbegriff ist, und zwar a priori, endlich der einzige Grundbegriff a priori, der allen Begriffen von Gegenständen der Sinne ursprünglich im Verstande zum Grunde liegt.

Es werden also so viel Begriffe a priori im Verstande liegen, worunter Gegenstände, die den Sinnen gegeben werden, stehen müssen, als es Arten der Zusammensetzung (Synthesis) mit Bewußtsein, d. i. als es Arten der synthetischen Einheit der Apperzeption des in der Anschauung gegebenen Mannigfaltigen gibt."

16. This of course echoes a well-known passage from the *Critique,* where Kant says, at B154, that we cannot represent a line except by drawing it in thought and goes on to describe this activity as one of synthesis, specifically as *figurative* synthesis (*synthesis speciosa*). As Longuenesse argues forcefully in *Kant and the Capacity to Judge,* figurative synthesis is modeled on mathematical construction. I briefly discuss Kant's conception of mathematical construction below, in section 9.
17. "Die Zusammensetzung können wir nicht als gegeben warnehmen, sondern wir müssen sie selbst machen: wir müssen *zusammensetzen,* wenn wir uns etwas *als zusammengesetzt* vorstellen sollen (selbst den Raum und die Zeit)."
18. "Meinem Urteile nach kommt alles darauf an: daß, da im empirischen Begriffe des *Zusammengesetzten* die Zusammensetzung nicht vermittelst der bloßen Anschauung und deren Apprehension sondern nur durch die *selbsttätige Verbindung* des Mannigfaltigen in der Anschauung gegeben und zwar in ein Bewußtsein überhaupt (das nicht wiederum empirisch ist) vorgestellt werden kann, diese Verbindung und die Funktion derselben unter Regeln a priori im Gemüte stehen müsse, welche das reine Denken eines Objekts überhaupt (den reinen Verstandesbegriff) ausmachen unter welchem die Apprehension des Mannigfaltigen stehen muß, so fern es *eine* Anschauung ausmacht, und auch die Bedingung aller möglichen Erfahrungserkenntnis vom Zusammengesetzten (oder zu ihm gehörigen) ausmacht, (d.i. darin eine Synthesis ist) die durch jene Grundsätze ausgesagt wird. Nach dem gemeinen Begriffe kommt die Vorstellung des Zusammengesetzten als solchen mit unter den Vorstellungen des Mannigfaltigen welches apprehendiert wird *als gegeben* vor und sie gehört sonach nicht, wie es doch sein muß, gänzlich zur Spontaneität usw."
19. Again, what this type of synthesis consists in will concern me below.
20. See e.g. the letter to Marcus Herz of May 26, 1789, Ak. XI, 48–55.
21. See David Hume, *Enquiry Concerning Human Understanding,* ed. Selby-Bigge, (Oxford: Oxford UP, 1975), sections III and V.
22. Note that we need to distinguish between the logical forms (plural) listed in Kant's table, and the logical form (singular) of any given judgment. If we call the former the elementary logical forms of judgment, we can say that the logical form of any given judgment will be some combination of these elementary forms. Which combinations are possible need not concern us here. See Michael Wolff, *Die Vollständigkeit der kantischen Urteilstafel. Mit einem Essay über Freges 'Begriffsschrift',* (Frankfurt a.M.: Klostermann, 1995), for discussion.
23. They are, in any case, intimately related: a function of judgment is the capacity to generate judgments with a particular logical form.
24. Cf. A182/B224ff.
25. Cf. A50/B74, quoted above.
26. It should be noted that when I say that the unity of intuition must be the sensible analog to the unity of judgment I am making a formal point. It concerns those features of intuitions and judgments, respectively, which pertain to them in virtue of being the kinds of representations they are, irrespective of their content. I emphasize this in order to show that the point is compatible with an important difference between intuition and judgment. There is a sense in which intuitions are more determinate than judgments. Thus, when I judge that the cat is on the mat, my judgment leaves indeterminate e.g. the size, color, and position of the cat. But in my intuition of the cat on

the mat these feature are fully determinate. That is, in my intuition, the cat has a definite size, color, position etc. So an intuition that "corresponds to" my judgment is more determinate than the judgment in a number of ways, and to that extent has a more specific content than the judgment. But we can acknowledge this fact while still maintaining that the formal features of the intuition, that is, the sensible mode of combination it exhibits, are strictly analogous to the mode of concept-combination exhibited by the judgment. For the point about determinacy concerns only the matter, in Kant's sense, of these representations, not their formal features.

27. Because the categories are pure concepts, 'having application' in this case is equivalent to 'being true of', as opposed to 'being either true or false of'. The reason is that a pure concept is either true of nothing at all, in which case it lacks objective validity, or it is true of everything. Its purity entails its universality. We can express this point by saying that pure concepts are formal concepts: they characterize the objects that fall under them with respect to their form as objects. And this means that they characterize these objects with regard to the features that make them objects in the first place.
28. Although it need not be represented *as* an object.
29. Cf. B165: "We cannot think an object except through categories; we cannot cognize an object we think except through intuitions, which *correspond* to these concepts." (my emphasis).
30. One could describe Allison's position, sketched in §1 above, as being motivated in part by an appreciation of this point. Thus, Allison is aware that intuitions give objects to the mind only if they exhibit the same unity as judgment. The problem is that he takes this to imply that for intuitions to exhibit this unity is for them to be absorbed into judgment, that is, for intuition and judgment to be one and the same act.
31. As Barbara Herman has pointed out, there is a similar concern with non-contingency in Kant's moral philosophy. Moral worth accords only to actions done from the motive of duty, rather than actions being merely in conformity to duty, because only if duty is the motive is it ruled out that the action's conformity to duty is an accident. See Barbara Herman, "On the Value of Acting from the Motive of Duty," in her *The Practice of Moral Judgment,* (Cambridge and London: Harvard UP, 1993), 1–22.
32. Cf. A2/B3f for the definition of 'a priori' in terms of necessity and universality.
33. "However, in comparison with empirical intuitions (indeed, sensible intuitions in general), pure concepts of the understanding are completely heterogeneous […]" (A137/B176).
34. That, and why, there is no corresponding doctrine for the form of outer sense, space, is irrelevant to our purposes.
35. "Denn z.B. der Begriff der Ursache, welcher die Notwendigkeit eines Erfolges unter einer vorausgesetzten Bedingung aussagt, würde falsch sein, wenn er nur auf einer beliebigen uns eingepflanzten subjektiven Notwendigkeit, gewisse empirische Vorstellungen nach einer solchen Regel des Verhältnisses zu verbinden, beruhte. Ich würde nicht sagen können: die Wirkung ist mit der Ursache im Objekte (d. i. notwendig) verbunden, sondern ich bin nur so eingerichtet, daß ich diese Vorstellung nicht anders als so verknüpft denken kann [...]."
36. This point is emphasized by John McDowell in "Hegel's Idealism as a Radicalization of Kant," published in Italian as "L'idealismo di Hegel come radicalizzazione di Kant," in *Iride* 34 (2001), 527–48.
37. "Aber Raum und Zeit sind nicht bloß als *Formen* der sinnlichen Anschauung, sondern als *Anschauungen* selbst (die ein Mannigfaltiges enthalten) also mit der Bestimmung der *Einheit* dieses Mannigfaltigen in ihnen a priori vorgestellt (siehe transz. Ästhet.). Also ist selbst schon *Einheit der Synthesis* des Mannigfaltigen, außer oder in uns, mithin auch eine *Verbindung*, der alles, was im Raume oder der Zeit bestimmt vorgestellt werden soll, gemäß sein muß, a priori als Bedingung der Synthesis aller *Apprehension* schon mit (nicht in) diesen Anschauungen zugleich gegeben."
38. "Der Raum, als *Gegenstand* vorgestellt, (wie man es wirklich in der Geometrie bedarf,) enhält mehr, als bloße Form der Anschauung, nämlich *Zusammenfassung* des Mannigfaltigen, nach der Form der Sinnlichkeit gegebenen, in eine *anschauliche* Vorstellung, so daß die *Form der Anschauung* bloß Mannigfaltiges, die *formale Anschauung* aber Einheit der Vorstellung gibt."
39. For helpful discussion of Kant's conception of mathematical construction see Jaakko Hintikka,

"Kant's Mathematical Method," in his *Knowledge and the Known*, (Dordrecht: Reidel, 1974), 160–183; Michael Friedman, *Kant and the Exact Sciences*. (Cambridge: Harvard UP, 1992), Chapter One; and Lisa Shabel, "Kant on the 'Symbolic Construction' of Mathematical Concepts," *Studies in the History and Philosophy of Science* 29 (1998), 589–621.

40. Cf. B162: "It is one and the same spontaneity, which in the one case, under the title of imagination, and in the other case, under the title of understanding, brings combination into the manifold of intuition." (Es ist eine und dieselbe Spontaneität, welche dort, unter dem Namen der Einbildungskraft, hier des Verstandes, Verbindung in das Manngifaltige der Anschauung hineinbringt).
41. I develop an interpretation of Kant's theory of judgment, which underwrites this claim, in my "Judgment and the Categories," unpubl. ms.
42. The description given in this paragraph enables us to characterize Allison, and those that follow him, as fastening on to the description of the genus—'the understanding is a capacity to confer on representations the unity of judgment'—but mistakenly taking it to be identical to what is in fact only one of two distinct species contained under it.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Prolegomena to a Proper Treatment of Mathematics in the Critique of Pure Reason

Thomas Lockhart
University of Chicago

1. INTRODUCTION

Analytic philosophy—particularly early analytic philosophy—has often attempted to characterize itself by drawing a contrast between its views and those of Kant. Such a characterization naturally encourages analytic philosophers to revisit Kant's own views on whatever topic is at issue. Sometimes, such a return to Kant is motivated by a purely exegetical interest—did Kant really think whatever it is that is attributed to him? At other times, philosophers hope that the turn to Kant might inspire (what will be) a new insight into the topic. This paper falls into the latter camp. It tries to extract from Kant some neglected insights concerning how analytic philosophy can and should approach questions in the philosophy of mathematics.

Both Frege and Russell attempted to locate their positions in the philosophy of mathematics by means of contrast with Kant's position. So it should not be surprising that there is a great deal of rich interpretative work to be found in the analytic tradition concerning Kant's remarks on mathematics in the *Critique of Pure Reason*. But there are also a number of curious moments in this literature—moments at which a commentator winds up attributing to Kant something that Kant seems to deny. In this paper, I explore this literature with an eye to exposing some of these curious moments. I argue that some moments can be traced to the fundamental assumption, shared by these commentators, that Kant's philosophy of mathematics

is designed to give a noncircular account of the foundations of mathematics—one that secures mathematical reasoning from a point of view independent of mathematical reasoning itself. This assumption has hitherto not been challenged because it has for a long time seemed straightforward that the overall project of the *Critique* is to give a certain type of justification for the foundations of human knowledge—one which is of a piece with the desired account of mathematics.

I argue that there is no reason to hold onto this foundational reading of Kant's philosophy of mathematics and urge that the consequences of rejecting this reading are liberating. For example, as we shall see toward the conclusion of this paper, it allows us to take seriously Kant's idea that a key forum for geometrical reasoning is the ordinary diagram (for example, on a blackboard or sketched on a piece of paper). Learning to do geometry is learning how to regard such a diagram with respect to its form. But what counts as the form of the diagram cannot be specified independently of mathematical concepts, nor can one determine that form independently of acquiring a certain sort of mathematical competence. That is, Kant is not seeking to explain or ground this mathematical ability to regard the diagram with respect to its form in some capacity or set of capacities more primitive than our capacity for mathematical reasoning.

The possibility of such an approach to Kant's treatment of mathematics has been largely obscured because of the assumption on the part of most commentators that Kant is giving a certain kind of ambitious explanation of how human knowledge is possible. It has seemed compulsory to these commentators to think that Kant must be searching for a similarly ambitious account of the foundations of mathematics. John McDowell has recently argued that this standard conception of Kant's broader epistemological project is not forced on us.

No doubt, it is the case that in the *Critique of Pure Reason* Kant is concerned to give a transcendental account of human knowledge. It is widely assumed that the supposed epistemological mechanisms which Kant apparently invokes in the course of his account of our ordinary claims to empirical knowledge are equally supposed to ground and thereby justify our claims to mathematical knowledge. McDowell, however, suggests an intriguing rereading of Kant's transcendental vindication of our entitlement to knowledge-claims.[1] McDowell's reading casts doubt on the standard understanding of Kant's epistemological project; and in this paper, I build on that reading in order to suggest that it is legitimate to give up the idea that Kant's philosophy of mathematics must have a corresponding foundational ambition. Though, in one way, this paper develops and extends certain aspects of McDowell's reading of Kant, in another way, it can be seen as contributing to a defense of McDowell's views against a particular recent objection to the effect that McDowell's own version of Kantianism cannot adequately account for the possibility of mathematical knowledge and that his reading of Kant does not have room for a satisfactory interpretation of Kant's views on mathematical knowledge.[2]

McDowell, in his 1997 Woodbridge Lectures, explores the Kantian question of 'vindicating' the objective purport of subjective conceptual episodes—exploring

how "thought and language are directed toward the world" (McDowell 1998, 431).[3] By considering and ultimately finding fault with a reading of Kant due to Sellars, McDowell argues for an unorthodox understanding of Kant's approach to this question of vindicating the objective purport of subjective episodes. McDowell's claim is that Sellars errs in his understanding of Kant's view of the nature of transcendental philosophy. Transcendental philosophy (at least as far as it concerns sense impressions and their relationship to the real world) "is directed toward showing our entitlement to conceive subjective occurrences as possessing objective purport" (McDowell 1998, 445). Sellars's misstep is to make this characterization of transcendental philosophy more specific in the following way: "he [Sellars, in his explication of Kant] undertakes to vindicate the objective purport of conceptual occurrences from *outside the conceptual order*" (ibid., 445, my italics). This formulation of McDowell's is meant to suggest another way to make more determinate the transcendental project of showing our entitlement to conceive subjective occurrences as possessing objective purport: to execute the transcendental project "from within the conceptual order," rather than taking a "sideways-on point of view on the directedness of the conceptual at the real" (McDowell 1998, 490). McDowell thinks that it is possible to read Kant as engaging in transcendental philosophy in this second way: as vindicating the objective purport of conceptual episodes without taking a sideways-on view of the relationship between these episodes and the real world—that is, without adopting a "standpoint external to that of the conceptual goings-on whose objective purport is to be vindicated" (McDowell 1998, 445).

The foregoing sketch of McDowell's reading of Kant proceeds at a high level of generality. McDowell's lectures are an extended attempt to make clearer and more specific the project merely outlined in the previous paragraph. In the first half of this paper, I argue that the aforementioned curious moments in the literature on Kant's philosophy of mathematics can be explained by the fact that the authors all subscribe to some generic version of the assumption concerning the nature of transcendental philosophy that McDowell attributes to Sellars, then transfer this assumption to the case of Kant on mathematics. In order to show this I will need to explain how this assumption manifests itself in particular readings of Kant's philosophy of mathematics.

At the heart of Kant's account of mathematics is his observation that distinctive of *mathematical* reasoning are two key qualities: universality and necessity. (These are the qualities that make mathematical reasoning a priori.) Beginning in §3, I trace a line of thought which can be viewed as arguing that Kant's goal is to ground the universality and necessity of mathematical reasoning in an independent and sui generis form of epistemic access to mathematical truth that is afforded by our capacities for pure a priori intuition. This, in essence, is an attempt to explain mathematical reasoning from outside the realm of the mathematical. I suggest that we should not hold out much hope that such an approach can be successful. Beginning in §9 I sketch the outlines of what I take to be the most plausible alternative reading of Kant's philosophy of mathematics.

On my alternative reading, Kant's own attempts (to 'vindicate' the universality and necessity of mathematical reasoning) proceed by drawing the attention of his reader to two central features of mathematical reasoning: the first of these is developed through a contrast between empirical concepts and mathematical concepts, a contrast which suggests that mathematical concepts are distinctive (not because they are grounded in some independently available faculty of pure intuition, but simply) because they are definable; the second of these is located in the context of Kant's discussion of the role of construction in mathematical demonstration. Mathematical construction is crucial for Kant because in a mathematical construction steps in mathematical reasoning are perspicuously represented in such a way that the universality and necessity of the steps is laid open to view. These observations of Kant's concerning the subject matter and methodology of mathematics serve to distinguish mathematical thought and reasoning from empirical thought, but do not seek to ground these features of mathematical reasoning in something extramathematical. Getting clear on the distinctive nature of mathematical concepts and their relationship to empirical concepts, and the related distinction between mathematical reasoning and other forms of reasoning, can suffice for a Kantian 'vindication' of the universality and necessity of mathematical reasoning. The role of an appeal to pure intuition in Kant's philosophy of mathematics can then be understood as being restricted to clarifying the way in which our mathematical capacities are related to our general capacity to acquire knowledge (Erkenntnisvermögen) in a way that is supposed to render the aforementioned contrast intelligible. Such an appeal is not supposed to furnish an independent explanation of the contrast between empirical and mathematical knowledge. Therefore, on my reading of Kant's treatment of questions in the philosophy of mathematics in the *Critique of Pure Reason*, what Kant does is first to elucidate a variety of cognitive and inferential capacities as well as the character of their mutual interaction and cooperation (intuition, imagination, understanding), and then second to demarcate our specifically mathematical forms of cognition and reasoning and show how these capacities are exercised.

With this reading of Kant in hand, I conclude (in §13) by turning my attention to a criticism of McDowell's reading of Kant leveled by MacFarlane. His argument turns on the idea that McDowell's reading of Kant cannot account for Kant's philosophy of mathematics. I assume that my reading of Kant's philosophy of mathematics is consistent with McDowell's reading of Kant's broader project, and show how MacFarlane's criticism can be defeated.

2. KEY QUESTIONS FOR ANY ACCOUNT OF KANT'S PHILOSOPHY OF MATHEMATICS

There are two central threads running through Kant's account of mathematics. Kant says:

I. "Mathematical knowledge is the knowledge gained by reason from the *construction* of concepts" (A713/B741).[4]

II. "Geometry is a science which determines the properties of space synthetically, and yet *a priori*" (B40).

In order to understand these key quotations, we need to understand the terminology Kant deploys in them. This leads to a number of questions that any attempt to understand Kant's philosophy of mathematics must address.

The idea that mathematical knowledge involves construction and the idea that mathematical truths are synthetic are connected for Kant. But neither idea is presented particularly clearly. Kant's definition of analyticity is notoriously difficult, which generates difficulties for his definition of syntheticity. Roughly, it seems the truths of mathematics are synthetic because these truths cannot be generated by merely *analyzing* the concepts involved.[5] Instead, the mathematician needs to employ *construction*. This brings us to the problems:

1. How are we to understand Kant's notion of a construction?
2. What is the intended contrast between a construction and an analysis?
3. How does Kantian construction illuminate the synthetic nature of mathematical truths?

Kant goes on to say that "for the construction of a concept we . . . need a *non-empirical* intuition. The latter must, as intuition, be a *single* object" (A713/B741). And later Kant says: "philosophical knowledge considers the particular only in the universal, mathematical knowledge the universal in the particular, or even in the single instance" (A714/B742). This raises the further question:

4. What role do particular, single objects (for example, a particular diagram on a blackboard) play in Kant's conception of a construction?

The second thread ("Geometry is a science which determines the properties of space synthetically, and yet *a priori*") seems related to Kant's notorious conclusion that space must be Euclidean. But more fundamentally, this idea yields the following question:

5. How should we understand Kant's thought that a mathematical construction can reveal something about the structure of space and time?

Kant's account of mathematics is often addressed through the notion of "construction in *pure* intuition." The centrality and importance of this notion is suggested to writers by such remarks as this: "Mathematics can achieve nothing by concepts alone but hastens at once to intuition, in which it considers the concept . . . in an intuition which it presents *a priori*, that is, which it has constructed" (A715–16/B743–44). There is a shared assumption among commentators that a "construction in pure intuition" is some special type of construction, or at least that pure intuition is a special place in which to generate constructions. How exactly to

understand the expression "construction in pure intuition" will depend on the particular commentator. Thus:

6. How are we to understand the term 'construction in pure intuition'?

This last question will occupy much of my attention in this paper and its answer will play a central role in my treatment of the other issues. It will become apparent that pure intuition is typically taken by commentators to ground or explain those (if any) forms of mathematical reasoning which cannot be assimilated to logical reasoning. So, our attempts to understand construction in pure intuition will lead into the following further issues:

7. What is the nature of mathematical reasoning, and is it a kind of logical reasoning?
8. Whatever the nature of mathematical reasoning, what makes it possible—what is its ground?
9. Is there a connection between this ground of mathematical reasoning and the nature of space and time?

In the next section, I'll outline Russell's criticisms of Kant, and extract some assumptions which are taken up by later commentators. In the subsequent sections of the paper, I'll explore how Russell's assumption that Kant's notion of pure intuition must have been intended to give an extramathematical justification for the universality and necessity of mathematical reasoning is taken up by twentieth-century analytic philosophers who have aimed to appraise Kant more sympathetically than Russell.[6] The task for these twentieth-century authors becomes, in effect: how to reconstruct Kant's philosophy of mathematics so it conforms with this fundamental (Russellian) assumption. I'll argue that the work of developing a reconstruction of Kant's philosophy of mathematics which conforms to the fundamental (Russellian) assumption reaches a natural culmination in Friedman's work. But once we make explicit the way that the Russellian assumption structures a dialectic from Russell's reading of Kant to Friedman's, I shall be able to explain why I think the positions it leads to are ultimately unstable both as philosophical positions and as readings of Kant.

So, the structure of the first half of this paper is this: to try to show that the brilliance of Friedman's account stems from his having thought through the implications of a certain reading of Kant to its logical conclusions—a tradition of reading the *First Critique* outlined in sketch form by Russell and then running under the surface of much of the history of commentary on Kant's philosophy of mathematics from Russell to Friedman. I'll trace this history, thereby showing how the Russellian assumption acts as a constraint on reconstructions of Kant's philosophy of mathematics and ultimately I shall urge that we have no choice but to reject the assumption.

3. THE EARLY RUSSELL'S PICTURE OF KANT

3.1. RUSSELL'S CRITICISMS OF KANT

Russell's criticisms are usually seen as developments of Frege's criticisms of Kant.[7] Central to Frege and Russell's criticisms is a worry that developed as a result of mathematical work in the nineteenth century: the fact that there had been shown to be mathematical principles and results that, although at one time seemingly unassailable, turned out to be false. A secure ground for mathematics apparently needed to be established, one that would prevent such errors in the future.[8] According to Russell, Kant explains mathematical knowledge in terms of the properties of pure intuition, which is part of Kant's general epistemology. But this faculty cannot, argues Russell, possibly account for mathematical reasoning; in particular it leads to precisely the kind of errors that need to be avoided. Instead, we should try to see if it can be demonstrated that principles of logic could serve as the ground of mathematical reasoning. The truths of logic are epistemically secure and accessible antecedently to mathematical reasoning; and if mathematical reasoning can be explained in terms of the truths of logic then mathematics could be placed on a secure foundation. It is important to see how exactly this objection to Kant's approach is developed by Russell.

One of the moments which seemed to suggest that mathematics stood in need of a more secure foundation than Kant had developed is the discovery of a formal definition of continuity, which came about in the nineteenth century. It is natural to think of continuity in terms of continuous motion, and Kant's philosophy of mathematics certainly encouraged the assumption that continuity be thought of in precisely this way.[9] However, nineteenth-century mathematicians were led to make a distinction between *continuity* and *differentiability*. If we follow the plausible Kantian picture and define continuity in terms of continuous motion, then continuity implies differentiability. But the correct definition of continuity ought not imply differentiability. In fact there are continuous curves nowhere differentiable. Since the idea that continuity can be understood as continuous motion seems extremely appealing, it took great insight to discern that such informal instincts are not always the best guide to mathematical advances and that the determination of the exact nature of such mathematical phenomena as *continuity* should not be guided by these instincts alone.

Russell's criticism of Kant is particularly influenced by another of the mathematical oversights that became well known only after Kant's death—the discovery that there are various ways to think about geometrical systems, so the mathematician is not restricted to Euclidean geometry. Kant apparently argues that certain geometrical principles are a priori true and that these principles characterize space. Russell takes it that the principles Kant is concerned to defend are the axioms of Euclidean geometry. For Russell, since mathematics reveals that these axioms are

not a priori true, nor do they a priori apply to space, Kant's account of the foundations of mathematics must be rejected.

Russell, in the *Principles of Mathematics*, tries to diagnose the flaw in Kant's account of mathematics. I just noted that there is a gap Kant does not recognize between definitions and proofs which seem indubitable and definitions and proofs that are in fact mathematically admissible. For Russell, the gap emerges in Kant's philosophy because Kant thinks that some mathematical reasoning is essentially different from the reasoning found in logic (Russell 1903, §434). For Russell's Kant, mathematical reasoning depends on pure intuition, which Russell takes to be a peculiarly human faculty. It is this faculty of pure intuition which accounts for the fact that mathematics is synthetic. Russell himself argues—in contrast to Kant—that no mathematical reasoning is dependent on anything peculiarly human but is in fact all just a development of logical reasoning and is therefore indubitable. That is, Kant's attempt to ground mathematical reasoning in a mysterious faculty of 'pure intuition', rather than the secure reasoning of logic, is responsible for such mathematical errors as the conflation of continuity and differentiability.[10]

Russell's complaint against Kant is therefore that Kant has not successfully argued for the universality and necessity of the principles of mathematical reasoning and the basic truths of mathematics. Indeed, Kant tried to ground these principles and truths in a shoddy foundation, leading to various errors. The main incorrect premise in Kant's argument, according to Russell, is Kant's view that mathematical reasoning is grounded in pure intuition. Kant was looking in the wrong place for a ground for mathematics.

So Russell's argument against Kant can be reconstructed as follows. Russell ascribes to Kant the view that mathematical propositions cannot be derived using *logic* alone ("the reasoning employed in deductions from the axioms is different from that of pure logic" [Russell 1903, §433]). That is,

1. Not all the forms of reasoning of mathematics are forms of reasoning we find in logic—not all mathematical reasoning is logical reasoning (this will ultimately be the reason that mathematical truths are synthetic for Kant).

Kant goes on to argue, according to Russell, that it is the 'a priori intuitions space and time' which supply (ground) these nonlogical methods of reasoning. So, Russell also attributes to Kant:

2. Pure intuition grounds mathematical reasoning.

But how is this claim to be understood? How does pure intuition ground mathematical reasoning? According to Russell, Kant believes that geometrical proof is made possible because the "a priori intuition space" is the "source" of (Euclidean) geometry (Russell 1903, §433). It "supplies" methods of reasoning which "formal logic does not admit" (ibid.). Part of Kant's broader epistemology is the claim that our intuition of space is a priori, and from this it follows that whatever is true of the a priori intuition space must apply to reality (arithmetic, according to Russell, has its source in the a priori intuition time). So, according to Russell, Kant argues

that a priori intuitions of space and time are required as part of a broader epistemological story, and it is by the use of these intuitions that mathematical truths are both discovered and assured of universal application (Russell 1903, §433). Mathematical truths and reasoning are grounded in the a priori intuitions space and time and we can be assured that mathematical reasoning preserves universality and necessity because the a priori intuitions space and time must apply to all our perceptions, and so truths about space and time—mathematical truths—are universally valid for those perceptions. So what secures the axioms of mathematics, for Russell's Kant, is the investigation of the necessary but human mode of cognizing the external world. We can thus make (2) more specific:

2'. The general epistemological role of pure intuition can be understood prior to and independently of mathematical reasoning and concepts (the primary home of pure intuition is in Kant's account of empirical cognition), but secures the validity of that reasoning and the legitimacy of those concepts.

So we are now in a position to see in more detail how Russell's criticism of Kant's view works. Since Kant believed (according to Russell) that all the properties of a priori intuitions apply to reality, and since the properties that the geometer unearths about the a priori intuition space are Euclidean, he is a priori assured that space is Euclidean.

Russell diagnoses the problem with this chain of reasoning as follows. Logical advances since Kant's time have shown that all the inferences we need for geometry can be made using the tools of modern logic: "logic is enriched by several forms of reasoning not reducible to the syllogism" (Russell 1903, §434). When 'logic' is understood correctly, we can see that (1) is simply not true. For Russell there is no longer any reason to think that the patterns of reasoning required to deduce the truths of arithmetic and geometry need to be grounded in anything other than modern logic. There is simply no need for pure intuition, no need to ground mathematics in the a priori intuitions space and time. Notice that modern logic plays for Russell in his understanding of how best to provide mathematics with a foundation the role that pure intuition plays in (2'). The modes of inference of modern logic are themselves secure independently of mathematics—they are, as it were, external to mathematics—but the forms of reasoning of mathematics (and indeed the content of mathematical concepts) can be derived from logic. Logic provides the external ground for mathematics that pure intuition cannot. So Russell's logicism (if successful) would undermine one of Kant's arguments that space is Euclidean.[11] Furthermore, with the analytic tools of modern logic, we will not make other conceptual errors, such as the conflation of differentiability and continuity. Logic provides the kind of secure foundation for mathematics that pure intuition can never provide. So we can summarize Russell's complaint against Kant[12] as follows:

> **Russell's Claim**: If (1) and (2') are true, then we cannot account either for the nature of mathematical reasoning, nor be assured of avoiding mathematical errors.

So, as we have seen, the Russell of *Principles of Mathematics* attributes the following two claims to Kant:

1. Not all the forms of reasoning of mathematics are forms of reasoning of logic—not all mathematical reasoning is logical reasoning (this will ultimately be the reason that mathematical truths are synthetic for Kant).

2. Pure intuition grounds mathematical reasoning.

There is an important ambiguity in (1). For Russell, logic is a very different science than it is for Kant. Russell himself is aware of this: he says that modern logic has been 'enriched' since Kant's time.[13] Is 'logic' in (1) modern logic, or Kantian logic? Note that even if we take 'logic' in (1) to pick out modern logic, whether (1) is true isn't clear, for it is not clear that all mathematical reasoning is (modern) logical reasoning. To give a simple example: is the principle of mathematical induction a principle of *logic*?[14] Even for the modern logician, the question of the relationship between mathematical reasoning and logical reasoning is not clear. So, a modern-day Kantian can make his position sturdier by acknowledging that logic has been vastly enriched since Kant's day and still accept that (1) is true. But most of the analytic philosophers I shall be interested in think that when trying to defend Kant, we need to understand (1) as involving Kantian logic.

(2) can also be made a bit more specific. We have already seen that Russell makes (2) more specific in (2'). (2') calls for us to ground mathematics in pure intuition, conceived of as something whose primary role—an account of empirical concepts in general—can be explained prior to and independently of the realm of mathematics. Pure intuition in (2') is, as it were, external to the realm of the mathematical. But it isn't obvious that we have to hear (2) as calling for such an external ground for mathematics. This observation is crucial to the argument of this paper.

For now, we will make (1) and (2) more specific as follows.

> **Kantian Non-logicality (KNL):** Not all the forms of reasoning of mathematics are forms of reasoning of Kant's logic—not all mathematical reasoning is Kantian logical reasoning (this will ultimately be the reason that mathematical truths are synthetic for Kant).
>
> **External Groundedness (EG):** Pure intuition is to be understood as playing an epistemological role which can be explained prior to and independently of mathematical reasoning and concepts—and it is pure intuition thus understood which secures the validity of that reasoning and the legitimacy of those concepts.

Russell's criticism of Kant first attributes KNL and EG to him and then argues that taken together they provide an unacceptable account of mathematics. On the one hand, Kant's conception of logic is unduly restrictive. Once the nature of logic is clear, it can be seen that mathematical reasoning *is* logical reasoning. On the other hand, EG is not true because mathematics does not need to be secured by

some mysterious faculty (pure intuition) but simply by the familiar modes of reasoning of logic. According to Russell, it is these mistaken Kantian doctrines which explain Kant's erroneous conclusions—for example, his claim that space is a priori Euclidean. So we can now restate even more precisely

> **Russell's claim:** If we accept KNL and EG, then (a) we cannot account for the nature of mathematical reasoning, and (b) we cannot avoid both mathematical and non-mathematical error.

One might avoid Russell's dialectic by coming up with an account of pure intuition such that accepting KNL and EG does not commit one to (a) and (b), or one might argue that although (a) and (b) do eventually follow, Kant's account of the nature of mathematics is not nearly as empty as Russell's criticism suggests. I shall be considering in this paper a variety of authors who do one of these things. I shall call them *Neo-Russellians*: they accept with Russell that KNL and EG characterize Kant's position, but try to argue for an understanding of pure intuition such that (a) and (b) either cannot be shown to follow, or, if they do follow, Kant's story is far more ingenious than previously thought.[15] So for the rest of the paper I want to adopt the following terminological conventions. A *Neo-Russellian* accepts that EG and KNL are claims of Kant's, but *denies* or downplays Russell's Claim.[16] An *anti-Russellian* accepts that EG is true of Kant, but, in a bid to avoid Russell's Claim, denies that Kant held KNL. That is, the anti-Russellian accepts the challenge of Russell's Claim, but argues that since one of the premises (KNL) is false of Kant, Russell's Claim need not trouble Kant. A *McDowellian* rejects that EG is true of Kant. What this rejection entails with respect to KNL and Russell's Claim is, I believe, an interesting open question. The following table seeks to lay out the options that confront us here.

	EG true of Kant?	KNL true of Kant?	Russell's Claim?
Russell	Yes	Yes	Yes
Neo-Russellian	Yes	Yes	No(-ish)
Anti-Russellian	Yes	No	Yes
McDowellian	No	?	?

For the neo-Russellian, it is an *insight* on the part of Kant that not all mathematical reasoning can be reduced to the logical reasoning of his day (indeed, a strangely prescient insight since Russell's confident prediction that all mathematical reasoning can be reduced to the reasoning of modern logic was quickly undermined). The bulk of the work of neo-Russellianism concerns investigating the nature of pure intuition for Kant. The idea is to give an account of pure intuition which preserves the truth of EG in such a way that either Russell's Claim is not true, or, if Russell's Claim is true, it still leaves a substantial and interesting insight into the nature of mathematics. The neo-Russellian does not deny that KNL is true of

Kant.[17] If the neo-Russellian can develop a philosophically interesting account of pure intuition, she can endeavor to avoid Russell's claim by arguing (a) that this account of pure intuition shows Kant to have had a sophisticated understanding of the nature of mathematics and its difference from logic and (b) that Kant need not have gone on to conclude that space must be Euclidean. Or she might argue that although Kant's unfortunate claim that space is Eucildean does torpedo his philosophy of mathematics, it is still far more philosophically interesting than Russell's argument would have it (particularly in virtue of (a)). Or she might more boldly suggest that Kant was, in some sense, correct: there are certain facts about space and time that our mathematical abilities do give us a priori knowledge of—these would presumably be mathematical facts at a far higher level of generality than the axioms of Euclidean geometry.

In this paper, I explore the work of three neo-Russellians: Jaako Hintikka, Manley Thompson, and Michael Friedman.[18] They all have different interpretations of 'pure intuition', while all ascribing EG to Kant. In order to understand their accounts of pure intuition (and clear the ground for my own interpretation of pure intuition), it will be necessary to spend some time examining their accounts of intuition proper. I argue that we can see the successive accounts of these authors as responding to various pressures internal to the neo-Russellian commitments. Friedman's neo-Russellianism emerges as the most sophisticated neo-Russellianism available, and yet his position has various drawbacks which I shall draw attention to. I'll urge that rather than try to further modify neo-Russellianism in the light of these drawbacks, we should instead conjecture that we have reached the end of the neo-Russellian road. I'll urge that we no longer attribute EG to Kant. I'll explain and defend what I take to be the most plausible alternative reading—McDowellianism—as suggested in the final line of my table.

4. THE ROLE OF PURE INTUITION IN THE NEO-RUSSELLIAN VIEW OF KANT I: SECURING A REFERENCE

Hintikka is one author in the analytic tradition who takes seriously the neo-Russellian idea that for Kant, pure intuition somehow makes possible forms of reasoning which are not available otherwise. In particular, Hintikka thinks that pure intuition makes possible existential instantiation. Unfortunately, Hintikka's account suffers from a flawed understanding of the notion of intuition in Kant. Hintikka's reconstruction of Kant's philosophy of mathematics provides an excellent route into the main textual issues concerning the nature of intuition for Kant which will be crucial for this paper. In the next two sections (§4–§5), I examine the accounts of Kant's philosophy of mathematics offered by Hintikka and Thompson and extract some of the constraints on a successful account of (pure) intuition. In the subsequent section (§6), I use work by Kitcher to develop some constraints on a successful neo-Russellian account of *construction* in pure intuition.

Hintikka observes that Kantian logic could not represent existential instantiation, and he argues that pure intuition was somehow supposed by Kant to fill this gap (so we can see that Hintikka ascribes KNL and EG to Kant[19]). At the heart of existential instantiation is the idea of "particular representatives of general concepts" (Hintikka 1992a, 24). Existential instantiation proceeds by considering a representation of a particular which is introduced "to instantiate a general concept" (Hintikka 1982, 201). The mathematician can then work with this representation, and, provided he works within certain constraints, the conclusions he reaches about the represented particular will hold for everything else that falls under the general concept. Now, the representations that mathematicians typically use when reasoning by existential instantiation are variables. A mathematician might say: "Let ABC be an isosceles triangle" or "Let *p* be an odd prime."[20] We might worry that variables are unlike other representations of particulars (for example, names) in that variables do not stand for a given individual. But Hintikka insists that the relevant point is that when we reason with a variable in a proof by existential instantiation the variable 'stands for' an individual, even if no particular individual is singled out as the value of that variable (Hintikka 1992a, 27).[21] The variable is, we often say, a singular term. This procedure of reasoning with an item which denotes a specific but unspecified individual is exactly what Kant means by 'construction', says Hintikka (1982, 201). So for Hintikka, a variable represents a particular. For this reason, Hintikka will consistently talk of variables as 'representations of particulars'.[22]

Hintikka's view that what Kant meant by construction of a concept is the practice of using a variable to instantiate a concept during a proof by existential instantiation constrains how Hintikka can read Kant's notion of intuition. This is because Kant maintains that "to *construct* a concept is the same as to exhibit, a priori, an *intuition* which corresponds to the concept" (Hintikka 1992a, 21). We've seen that Hintikka believes that variables, as deployed in existential instantiation, should be thought of as representations of particulars. If working with such a representation is to count as exhibiting, "a priori, an *intuition* of that concept" then Hintikka will have to argue that these representations count as Kantian intuitions. Hintikka therefore spends a great deal of time defending the idea that "the basic force of the term [*Anschauung*] in Kant was representation (concept) of a particular (individual in the present-day logical terminology)" (Hintikka 1972, 342).

I now want to bring attention to some of the drawbacks to this understanding of intuition in Kant, and thereby suggest some restrictions on any successful account of Kantian intuition.

I begin with some terminology due to Parsons (1969). Parsons distinguishes two criteria that Kant associates with intuitions:

> **Immediacy Criterion**: Intuitions are representations which immediately relate to objects: [A] "In whatever manner and by whatever means a mode of knowledge may relate to objects, intuition is that through which it is in immediate relation to them, and to which all thought as a means is directed." (A19/B33)

> [B] "A perception which relates solely to the subject as the modification of its state is *sensation* (*sensatio*), an objective perception is *knowledge* (*cognitio*). This is either *intuition* or *concept* (*intuitus vel conceptus*). The former relates immediately to the object and is single, the latter refers to it mediately by means of a feature which several things may have in common." (A320/B376–77)

> **Singularity Criterion:** Intuitions are singular representations. See quotation [B], or:
> [C] "All cognitions, that is, all presentations consciously referred to an object, are either *intuitions* or *concepts*. Intuition is a *singular* presentation . . ., the concept is a *general* . . . representation." (Kant 1974, 96)

There is a lively debate about what these criteria mean, and how Kant believes they are related.[23] Hintikka maintains that Kantian intuitions just are representations of individuals: "Everything, in other words, which in the human mind represents an individual is an intuition" (Hintikka 1992a, 23). This—representing an individual—is just what the singularity criterion amounts to, he argues. Furthermore, although he believes that intuitions must meet both the singularity criterion and the immediacy criterion, he argues that the immediacy criterion can be understood in such a way that it is merely a consequence of the singularity criterion, not an independent restriction on what it is to be an intuition. How does Hintikka propose to understand the immediacy criterion in such a way that, with his understanding of an intuition as any singular representation, the immediacy criterion is a trivial consequence of the singularity criterion? The immediacy criterion is often read as requiring that "the object of an intuition is in some way directly present to the mind, as in perception" (Parsons 1992b, 144). So we might think that any item which meets the immediacy criterion is tied to sensibility. But for Hintikka representations can be singular without relating to a specific individual. So if such representations are to meet the immediacy criterion, we cannot understand the immediacy criterion as *requiring* a connection to sensibility. 'Immediacy', as deployed in the immediacy criterion, should be understood in contrast to the 'mediacy' of concepts:

> A general term or its counterpart in the mind does not refer to its object immediately, but only through the mediation of a characteristic which several objects may share. These characteristics, so to speak, 'intervene' between concepts and their objects. Only intuitions, i.e. singular representations, can therefore have the required direct reference to objects. (Hintikka 1972, 342–43)

The immediacy criterion, thus understood, is trivially fulfilled by singular representations: for singular representations lack the generality of concepts. So Hintikka argues that the immediacy criterion be read as merely a trivial corollary of the singularity criterion. Here I shall only note that the quotations I cited from the *Critique* under the heading 'Immediacy Criterion' above (A and B) seem to suggest that for Kant the two criteria are intended to be independent, individually insufficient conditions for a representation to count as an intuition.

Hintikka does not deny that Kant often writes as if there is a connection between sensibility and intuition. But Hintikka thinks that we have to read the Transcendental Aesthetic as constituting an *argument* that there is a connection between sensibility and intuition—so whenever Kant writes as if intuitions "are present to the mind, as in perception" this is not in virtue of Kant's definition of intuition, but something Kant is only entitled to as a result of the argument of the Transcendental Aesthetic. In order to appreciate the role that the Transcendental Aesthetic plays in Hintikka's reconstruction, we must first observe that for Hintikka the items introduced in the course of a proof by existential instantiation are a priori intuitions. He characterizes a priori intuitions this way: "Intuitions, in general, were for Kant *Vorstellungen* or ideas which are due to the immediate presence of their objects or which are used as if they were due to the presence of objects. In the first case, we have to do with an empirical (*a posteriori*) intuition; in the second, with an *a priori* one" (Hintikka 1969, 45). Hintikka goes on to argue that "the problem with the use of such instantiation methods is that in them we introduce a representative of a particular entity a priori, without there being any such entity present or otherwise given to us" (Hintikka 1992b, 346). This is a *problem* for Kant because Kant held that mathematics yields knowledge "which is applicable to all experience *a priori*" (Hintikka 1992b, 346).[24] The Kantian solution to this problem is to argue that since objects are only known through sensibility, then the results of mathematics will be applicable a priori to reality if the results of mathematics are results about the form of sensibility (or, as Hintikka puts it at one point, "the structure of our apparatus of perception" [1969, 39]). It is only with this result in hand that Kant can argue that there is necessarily a connection between intuition and sensibility.

Hintikka is mystified by Kant's claim that the only way we can cognize individuals is through sense perception (e.g., Hintikka [1992b, 348]). His mystification is understandable. For Hintikka, the Kantian notion of an intuition—which can be approached logically prior to the argument of the Transcendental Aesthetic—is in effect the idea of a singular term. Clearly there are many ways that one might come to know about an object and make a judgment whose formulation refers to that object using a singular term, and it is not always the case that one comes to know about these objects via sense perception (as Hintikka puts it "this picture [thinking of all knowledge of individual objects as due to perception] is *grundfalsch*" [Hintikka 1967, 40]). From Hintikka's point of view, it is just false to argue that all intuitions are bound up with sensibility. Hintikka, as we have seen, thinks that the Kantian notion of an intuition (as it is defined, not as it comes to be used after the Transcendental Aesthetic) is at the heart of an account of mathematics which deploys, in essence, the modern notion of existential instantiation involving variables. The task of the Transcendental Aesthetic *should* be to 'explain' this form of reasoning (Hintikka 1982, 206). From this point of view, the Transcendental Aesthetic is *bound* to seem disappointing. For it doesn't explain why it is possible to reason mathematically deploying "a particular object to stand for a number of objects with some common characteristic" (Hintikka 1969, 50).[25] Instead, it insists that intuitions have to be connected to sensibility: that an intuition of a number has to present

a particular number, not just a variable. The Transcendental Aesthetic only explains reasoning with "an actual instance of the objects under consideration" (Hintikka 1969, 50). So Hintikka separates two theories of mathematics in the *Critique*. One he argues can be found in the Transcendental Doctrine of Method and in the *Prologomena*. This theory uses intuition as if an intuition is just any singular term, and grounds mathematics on reasoning with any method of existential instantiation. This first theory is logically prior to the Transcendental Aesthetic. The second theory comes after the Transcendental Aesthetic has argued for a connection between intuition and sensibility and can only explain existential instantiation with an actual instance of the concept under investigation (see, e.g., Hintikka [1969, 48]).

Hintikka seems to have given us a rather disappointing reading of the *Critique*. There are two textual moments which Kant seems to regard as important, but Hintikka is mystified by. On the one hand, Kant writes as if the singularity criterion and the immediacy criterion are two independent, important features of intuition. He does not seem to write as if one is a merely trivial consequence of the other. The fact that Hintikka concludes that Kant uses 'intuition' in two distinct ways in the *Critique* should also be regarded as a reason for dissatisfaction with his reconstruction of the notion. Call this the small textual problem. On the other hand, Hintikka is forced to downplay the connection between intuition and sensibility, and thus is unable to make sense of the Transcendental Aesthetic, which seems to be a crucial part of Kant's text. Call this the large textual problem. If we are to make sense of Kant's account of mathematics in the context of the first *Critique*, we should at least see if there is any way to address these textual problems.

5. THE ROLE OF PURE INTUITION IN THE NEO-RUSSELLIAN VIEW OF KANT II: SECURING THE POSSIBILITY OF CONSTRUCTION

We can see Thompson's neo-Russellianism as an attempt to respond to the textual problems facing Hintikka. Thompson wants to try to preserve Kant's interest in the role that sense perception has to play in an account of human knowledge. For Thompson, the Transcendental Aesthetic is only one step in Kant's story about how we bring to bear our conceptual apparatus on the 'amorphous sensory manifold'. He thinks that for Kant sensibility passively receives that sensory manifold, which is then subjected first to the forms of space and time, and then to the full conceptual apparatus of the understanding. Intuitions are those items which have been spatiotemporalized, but not yet fully conceptualized. Mathematical knowledge is knowledge about the form to which the amorphous manifold is subjected by sensibility: knowledge about space and time. It is useful to see in a little more detail how this account works.

For Thompson, Kant's central task is to explain the fact that although our sensory apparatus is initially presented with an 'amorphous sensory manifold', we ulti-

mately seem to use this manifold to make conceptually rich judgments about the external world. On Thompson's reading of Kant, all concepts are general, and all conceptual representation inherits this generality. No matter how we combine concepts into a representation, it is always possible that more than one item falls under the conceptual representation: "no concept is ever an ultimate subject—a representation that relates immediately to objects and can never be a predicate of further representations" (Thompson 1972, 326). But (in contrast to Hintikka's view) all singular terms—including names *and* demonstratives—are essentially conceptual representations, Thompson argues. All singular terms are just certain deployments of concepts: concepts put to singular use. They do not relate immediately to objects. The only way for thought to break out of the essentially general realm of the conceptual is in virtue of the fact that synthesis brings *intuitions* under concepts. Intuitions *are* determinate items which fall under concepts. So although for Hintikka all singular representations are intuitions, for Thompson, names are not and cannot represent intuitions. Since names (and demonstratives) are conceptual they are inherently general. The singularity characteristic of intuitions is designed precisely to contrasts with this kind of generality. No conceptual item can represent the singularity of intuition, and since names are conceptual, they cannot represent intuitions.[26] So Thompson is carefully disagreeing with Hintikka: the contrast between the generality of concepts and the singularity of singular terms is not the contrast Kant had in mind between concepts and intuitions.

How does an intuition provide something to fall under a concept used as the subject of a singular judgment? At first, one might think that an intuition is that which is initially given in perception—an "amorphous sensory manifold requiring unification through concepts in order to become intelligible" (Thompson 1972, 321). But the idea that an intuition is simply a not-yet-conceptualized amorphous sensory manifold does not sit well with the famous passage at A320/B376–77, where it appears that both intuitions and concepts are "species of objective perception" (Thompson 1972, 319), and it does not give sense to the idea that intuitions are to be *singular*—the notion of singularity does not get a grip with respect to the amorphous sensory manifold. The resolution lies in the fact that all intuition is proved to be sensible by the Transcendental Aesthetic.

> An empirical intuition, then, is not merely an immediate apprehension of an amorphous sensory manifold. It is also an immediate apprehension of this manifold as a spatio-temporal something, and in this respect it is a cognitive representation, an objective perception, even though it is blind in the sense that it is not an apprehension of an object characterised by sensory qualities. (Thompson 1972, 322)

So an intuition isn't yet conceptualized. It is merely a spatiotemporalized amorphous sensory manifold. But it can, by an act of synthesis, be brought under a concept (Thompson 1972, 323). Intuitions supply content for concepts put to singular use in judgments: "Intuitions thus supply objects for concepts" (Thompson 1972, 323).

So according to Thompson, intuitions are singular *not* because they are the mode of thought in which we represent particular objects. Intuitions work, as it were, underneath the discursive realm in which we put concepts to singular use in order to try to represent particular objects. The singularity of intuitions is not to be understood conceptually. Rather, intuitions are singular because they are unique, unrepeatable spatiotemporal sensory manifolds, ultimately providing objects to fall under concepts. Intuitions are immediate because intuitions are partially worked-up amorphous *sensory manifolds*—they are spatiotemporal somethings that have been *sensed*.[27]

We can see how Thompson responds to the small and large textual problems which faced Hintikka. First, in order to account in a more satisfactory way for the role of immediacy in Kant's characterization of intuition, Thompson makes a *narrowing move*: intuition is in fact to do with sensed (merely spatiotemporal) individual somethings, not just any representation of an individual. Second, Thompson's account of the role of intuition in the Transcendental Aesthetic relies on the idea that space and time give a structure to the amorphous manifold which in turn grounds an 'intuitive' notion of singularity—a kind of spatiotemporal particularity which is distinct from any kind of conceptual representation. It is only in virtue of the intuitive singularity of intuitions that it is possible for thought to extend beyond the world of inherently general conceptual representations and make genuine contact with particular external items. There is thus a radical gap between the generality of conceptual representations, and the singularity of intuitive representations. In order to allow thought to escape from the generality of the conceptual, intuitions have to be different in kind—*radically independent* from the understanding. The spatiotemporality of intuitions—and thus the Transcendental Aesthetic—is designed to give sense to a notion of singularity which contrasts with the generality of all conceptual representation and make genuine knowledge of the external world possible. The point of the Transcendental Aesthetic is not to restrict all knowledge of particulars to spatiotemporal, perceived objects, but to allow all and any conceptual thought to escape its inherent generality and engage with the world.[28]

We'll pick up the question of the nature of intuition in Kant again in §7 where I shall make another proposal about how to understand the immediacy criterion and the singularity criterion. In particular, I'll ask to what extent intuitions have to be independent from the understanding in order to represent a genuinely independent external world. For now, I want to turn to a consideration of how Thompson uses his understanding of intuition in his account of Kant's philosophy of mathematics.

Since intuitions are amorphous sensory manifolds which have been subjected to the conditions of space and time, intuitions themselves have a *form*—space and time. Mathematics is concerned with discovering properties of the form of intuition, unearthing the general structures which are imposed on everything we sense.

Thompson takes as his starting point the fact that for Kant mathematics is bound up with *construction*. Like Hintikka, Thompson distinguishes two kinds of

mathematical reasoning. In geometry, we apparently construct actual examples of the mathematical objects about which we reason, and in algebra we reason merely with symbolic representatives of the objects about which we reason. The geometricians' object of study is precisely that which he constructs. But in arithmetic and algebra, we do not construct the objects of our study. Rather, we construct "spatial representations of them, written formulas and numerals" (Thompson 1972, 336). Mathematical properties of the objects these symbols represent correspond to the properties of the symbols.[29] We can say that the constructions of the mathematician are either symbolic, as in algebra, or ostensive, as in geometry.[30]

As I indicated, Thompson thinks that these constructions reveal the form of intuition. Our knowledge of these constructions is made possible by pure intuition: "What is given a priori through pure intuition is either a form of intuition or the construction under such a form of a mathematical concept" (Thompson 1972, 339). Pure intuition makes possible these mathematical constructions, and these mathematical constructions reveal the form of intuition. Furthermore, "What appear as existence questions in mathematics are really questions of constructibility and not existence" (Thompson 1972, 338). What exists is that which is given through perception (empirical intuition), that which is given a priori in pure intuition (forms of intuition or constructions) does not therefore *exist* (Thompson 1972, 339). So,

> The pure intuition by which mathematical demonstration proceeds . . . issues in an immediate apprehension, not of existing objects, but of constructibility under forms of sensibility. That it also leads to mediate knowledge of existing objects can only be proved in transcendental philosophy by proving that all existing objects are given under those forms of sensibility. (Thompson 1972, 342)

We cannot determine that which is (mathematically) constructible by determining what is physically possible. Rather, "one must *see* (intuit) the constructibility" (Thompson 1972, 340). It isn't clear what this comes to. But what is clear is that *mathematical reasoning is reasoning involved with the possible constructions that the "pure form" of space and time alone makes possible.* Once we are convinced, by transcendental philosophy, that *all* existing objects are "given under" the forms of space and time, we can be sure that all the constructions that pure intuition makes possible do in fact apply to all existing objects. On this story, mathematical reasoning is explained by and grounded in the epistemological and transcendental claims made by Kant's broader project in the *Critique*. Mathematical reasoning is made possible precisely because of the nature of intuition in Kant's epistemological story.

In Thompson then, we have a neo-Russellianism. For Thompson thinks that at the heart of mathematical reasoning is the work of construction, and these constructions are somehow grounded in pure intuition. The role of pure intuition in Kant's broader epistemology can be specified prior to thinking about mathematical reasoning, and mathematical reasoning is to be understood as grounded in pure intuition. But unlike Hintikka, Thompson's neo-Russellianism is able to take a more sympathetic approach to Kant's claim that intuitions are characterized by the

singularity criterion and the immediacy criterion and to find a more plausible account of the role of the Transcendental Aesthetic.

6. A PROBLEM FOR THE NEO-RUSSELLIAN READING OF KANT

Thompson's account of construction in pure intuition says that we are to "*see* (intuit)" (Thompson 1972, 340) the constructions which ground mathematical reasoning (through an "immediate apprehension" [Thompson 1972 342]). I pointed out that it isn't clear what this means. We can make this worry more precise: these two verbs do not necessarily pick out the same ability. On the one hand, we might ask: how seriously are we to take the visual aspect of construction in pure intuition? What is it that a mathematician "sees" while he reasons mathematically? Does he discover mathematical truths by inspecting a mental diagram with the mind's eye? Or on the other hand is there some mysterious faculty of "intuition" involved, a faculty which is somehow able to divine the mathematical facts? According to Philip Kitcher, Kant's philosophy of mathematics cannot succeed if the basis of mathematical discovery is the idea that the mind's eye inspects mental diagrams. In this section, I outline Kitcher's objection and argue that in order to respond to it, the neo-Russellian story will be forced in a certain direction. At the heart of Kitcher's objection is the concern that one cannot, through "visual inspection" of a diagram (including inspection of an inner drawing by the mind's eye) determine mathematical truths. Some further apparatus must be involved in an explanation of mathematical reasoning. In this section, I shall argue that Kitcher's objection only has force against a certain kind of neo-Russellian: one who subscribes to what I shall call a reductive reading of EG. I'll argue that there is another reading of EG—which I shall call transcendental. I argue that if a neo-Russellian reads EG transcendentally, Kitcher's objection is not troublesome.

Here is the problem developed by Kitcher (1975). The task of the mathematician is to disclose mathematical truths—which we have seen for Kant are truths about the pure intuitions space and time. The mathematician is to discover these truths by performing constructions 'in' pure intuition. It is tempting to conceive of pure intuition as a realm where mathematical constructions are produced and inspected. As Kitcher puts it, Kant's "picture presents the mind bringing forth its own creations and the naive eye of the mind scanning those creations and detecting their properties with absolute accuracy" (Kitcher 1975, 50). Kitcher suggests the analogy of a surface (Kitcher 1975, 31) to clarify the idea of pure intuition. By performing constructions according to certain rules on this surface, and then inspecting these constructions, the idea is that I can learn about the nature of the surface. Suppose, to take his example, I construct a scalene triangle (Kitcher 1975, 42). There is a very natural sense of 'visual inspection' (or, 'inspection with the mind's eye') according to which I can equally well infer from an inspection of this triangle

both that triangles have the side-sum property, and that triangles are scalene. What dictates that the former is a legitimate conclusion while the latter is illegitimate? An obvious response is that "we can draw general conclusions using only those features of the image on which the rule has pronounced" (Kitcher 1975, 43). Of course, the problem is that this seems to make the actual construction entirely unnecessary—if we are just drawing out properties that follow from the concept of 'triangle', then we can proceed by conceptual analysis alone. But Kant's claim that the truths of mathematics are synthetic requires there to be some properties that the construction has in virtue of the surface, but not in virtue of the rules for construction. Now consider any particular construction. Some of the properties of the constructed triangle are possessed merely in virtue of the rule by which the construction took place (Kitcher calls these *R*-properties). Some of the properties of the constructed triangle do not trivially follow from the rule for the construction, but are had because of the nature of the surface involved (*S*-properties). The problem Kitcher raises is that we need to acknowledge a third class of properties—the accidental properties of the construction (*A*-properties). The question is how are we to distinguish *S*-properties and *A*-properties? (Kitcher 1975, 44). How do we tell that the side-sum property is an *S*-property and the fact that this triangle is scalene is an *A*-property? So now "it is difficult to see how we can distinguish *S*-properties from *A*-properties without already knowing the properties of space" (ibid.), and yet for Kant geometry is supposed to disclose these properties. The risk Kitcher identifies is that our explanation of mathematics threatens to become circular.[31]

This circularity is not troublesome for all accounts of Kant's philosophy of mathematics. Kitcher's account only causes trouble if (a) we take seriously the idea that the construction of diagrams is important in Kant's philosophy of mathematics, and (b) we understand EG in what I shall call a reductive sense.

According to EG we should be able to give an account of the general epistemological role of pure intuition prior to and independently of an account of mathematics, and then explain mathematics in terms of this account of pure intuition. Kitcher's objection exposes an important ambiguity in how to understand 'explanation' in the formulation of EG. One plausible way to hear the term 'explanation' in EG is as calling for an explanation of how a reasoner can isolate certain forms of reasoning as mathematical reasoning without yet knowing how to reason mathematically. Call this kind of explanation 'reductive'. To give an example of this kind of explanation: Russell seems to think that 'explanation' in EG should be understood reductively. Russell says that pure intuition 'supplies' methods of reasoning not found in logic. It is natural to think that the picture he has in mind is this: a reasoner who has been thoroughly trained in logic is not yet proficient in all the methods of reasoning employed by the mathematician. However, exercise of certain faculties with which the reasoner *is* familiar will remedy this lack: epistemological mechanisms which can be exercised apparently independently of mathematical reasoning turn out to constitute or 'supply' techniques of mathematical reasoning.[32] That is, the reasoner need do nothing more than exercise faculties he already possesses in

order to reason mathematically. In other words, mathematical reasoning is nothing more than certain kinds of deployment of epistemological faculties which can be explained and understood prior to and independently of giving an account of mathematical reasoning. A philosopher who understands 'explanation' in this way is committed to a *reductive reading of EG*.

Kitcher's problem is only a problem for the reductive reading of EG. A philosopher committed to a reductive reading of EG will start by giving an account of pure intuition which does not deploy any mathematical terminology. He will then attempt to show how constructions (in pure intuition) can be used to reason mathematically. Following Kant, such an account understands constructions in pure intuition as either literal or metaphorical diagrammatic construction 'on a surface'.[33] We are then to suppose that the mind (or the mind's eye) scans this construction, and tries to derive mathematical conclusions from this inspection.[34] For the reductive reading of EG to succeed, this inspection will have to lead to mathematical conclusions. But, as Kitcher pointed out, there is no reason to think that such an inspection can lead to mathematical conclusions unless the mind's eye already knows how to reason mathematically—but this is precisely what the reductive account is supposed to explain!

An alternative way to hold onto EG is to canvass another understanding of 'explanation'. One way to think about the kind of explanation invoked here is this: Kant assumes we start with a reasoner who is already able to reason mathematically. Kant also gives an account of pure intuition which is independent of mathematics. The role of this independent account of pure intuition is to 'back up' or 'secure' this mathematical reasoning externally—to secure the universality and necessity of the mathematical reasoning from the outside—but not to provide a reductive explanation of the mathematical reasoning. Kant's account tries to show how mathematical reasoning is secured as universal and necessary without trying to *reduce* that reasoning to some more basic faculty. I'm going to call this kind of explanation an *external transcendental explanation*. A reading of EG which understands 'explain' this way is a transcendental reading of EG.[35]

The difference between a reductive reading of EG and a transcendental reading of EG can be cashed out by drawing attention to two ways to understand what is 'external' to mathematics. A reductive reading of EG maintains that to say that mathematics can be externally grounded is to say that we can secure the legitimacy of mathematical reasoning and concepts by showing how mathematical reasoning just is the exercise of certain faculties which can be specified nonmathematically. Such an account not only attempts to legitimate mathematical reasoning by grounding it in faculties which can be specified nonmathematically, it also claims that mathematical reasoning just is certain exercises of these faculties. The reductive reading of EG is *doubly* external: mathematics is both grounded in and identical with certain faculties which are, as it were, independent of the mathematical. But the transcendental reading of EG removes one of these levels of externality. It does not attempt to identify methods of mathematical reasoning with certain exer-

cises of nonmathematically specifiable faculties. Instead, it merely urges that such faculties can be used to ground or legitimate the (universality and necessity of) mathematics. In the next section, I'll consider such a *singly* external story. My own account will drop both these levels of externality.

7. THE ROLE OF PURE INTUITION IN THE NEO-RUSSELLIAN VIEW OF KANT III: AN EXTERNAL TRANSCENDENTAL GROUND FOR THE POSSIBILITY OF MATHEMATICAL REASONING

In this section, I want to explore what neo-Russellianism does when it abides by the constraints I have imposed on neo-Russellianism. In particular, I'm interested in a neo-Russellianism which adopts a transcendental reading of EG. This brand of neo-Russellianism is best developed by Friedman.[36]

For Friedman, Kant's critical project is motivated in large part by Kant's desire to determine how mathematics is applicable to sensible nature. The scientific revolution had developed a "fundamentally mathematical account of the whole of nature" (Friedman 1996, 437), but was unable to account for "the *application* of pure mathematics to empirically given nature" (ibid.). Philosophers prior to Kant had wrestled unsuccessfully with the "lack of fit between precise and exact mathematical forms and sensible natural objects" (Friedman 1996, 436). Kant's task is therefore to explain the "rational intelligibility of sensible nature" (Friedman 1996, 436).

In the terminology of the *Critique*, this gap between mathematics and sensible nature manifests itself in the gap between the faculties of understanding and sensibility, argues Friedman. The two faculties are fundamentally independent and need somehow to be yoked together. According to Friedman, "We need additional a priori structures that mediate between the pure forms of judgment comprising what Kant calls general logic [concerned with concepts and understanding] and the unconceptualized manifold of impressions supplied by the senses" (Friedman 2000b, 27). Almost any commentator will agree to the following: Kant's transcendental arguments are designed to show that although conceptually independent, "the understanding necessarily operates in cooperation with sensibility" (Friedman 1996, 439). Friedman, however, takes it that this cooperation is mediated by a third term, and it is this task that he assumes is to be fulfilled by a Kantian appeal to a priori structures. These a priori structures, bridging the gap between understanding and sensibility, are therefore designed primarily in order to account for the applicability of mathematics to sensible nature. Call this problem of discovering the a priori structures that mediate between understanding and sensibility the *bridging problem*.[37]

In order to resolve the question how mathematics is applicable to sensible nature (and thereby determine how it is that the understanding and sensibility necessarily operate in consort) Friedman believes it is *first* necessary for Kant to explain

how *pure* mathematics is possible. A Kantian account of pure mathematics will ground or explain the provenance of both mathematical reasoning and mathematical concepts. Since Friedman is a neo-Russellian, he believes that it was a fundamental insight of Kant's that (general) logic could not account for mathematical concepts or reasoning.[38] "General logic" is concerned only with "concepts and understanding alone, considered wholly independent of intuitions and sensibility" (Friedman 1992, 96). From a modern point of view, the reasoning that could be carried out in general logic can be wholly represented within monadic predicate logic.[39] Kant's first task is to discover what needs to be added to general logic to account for the possibility of pure mathematics. This explanation of the possibility of pure mathematics is antecedent to and independent of the subsequent account of how mathematics is applicable to sensible nature: "Kant's theory of the synthetic nature of mathematics is an attempt to show the inadequacy of mere general logic directly, quite independently of the relation of our concepts to possible (empirical) objects" (Friedman 1992, 129).

According to Friedman, Kant's idea is that what needs to be added to general logic to account for mathematical concepts and reasoning is the form of intuition—space and time.[40] For example: at the heart of arithmetic lies the idea of the successor function, at the heart of which is the idea of *being able to repeat* any operation. But the possibility of being able to repeat any operation *depends for its possibility upon* the fact that time is endless. So Friedman writes:

> In particular, it is impossible within mere syllogistic logic adequately to represent the essential idea of the infinite or indefinite extendibility of the number series: such an idea requires polyadic quantificational dependence . . . .Since such quantificational forms are of course not available in syllogistic logic, Kant naturally holds that the idea of indefinite iteration cannot be captured in mere general logic. What allows us to think or represent such indefinite iteration is thus taken to be the pure intuition of time: the form of inner sense in which *all* our representations must necessarily be found (A33–34/B49–51). In other words, for whatever operation we may think, there is always time for iterating or repeating that operation as many times as we wish. It is this fact about the pure intuition of time as the form of inner sense, and this fact alone, that first allows us to represent the idea of progressive iteration. (Friedman 1992, 121)

The most distinctive twist Friedman puts on his reconstruction of Kant's philosophy of mathematics is his use of a transcendental version of EG. Friedman is well aware that attempting to ground mathematical reasoning by suggesting that pure intuition somehow allows the mathematician an 'insight' into the mathematically significant aspects of a diagrammatic construction does not provide a genuine *explanation* of mathematical reasoning. Nevertheless, Friedman is still committed to the idea that pure intuition grounds mathematical reasoning. As Friedman puts it:

> it is extremely unlikely . . . that in appealing to intuition . . . Kant is imagining any such process of 'visual inspection'. It is much more plau-

> sible that . . . he is referring to the Euclidean *proof* . . . . Intuition is required, then, not to enable us to 'read off' the side-sum property from the particular figure . . . but to guarantee that we can in fact prolong [a line in the Euclidean proof]. (Friedman 1992, 90)

Consequently "the intuition involved . . . is not a quasi-perceptual faculty from which we 'read off' the properties of triangles from particular figures, but that involved in checking proofs step by step to see that each rule has been correctly applied" (Friedman 1992, 92).[41] How does Friedman think that pure intuition guarantees the constructions required for mathematical reasoning?

The pure forms of intuition—space and time—interact with the understanding, independently of any particular deliverances of the faculty of sensibility. This interaction makes possible certain constructions. How does the interaction between the understanding and the pure forms of space and time make constructions possible? On Friedman's reconstruction of Kant's argument, certain abilities are required in order for a subject to be able to locate himself and the objects of perception in space and time. For example, a subject

> imaginatively locates itself in space at a definite position (a particular point of view) and with a definite orientation (a particular perspective on the spatial world as perceived from this point of view). Such an orientation is established, for example, by choosing three particular line segments set at right angles from a common point. The objects of outer sense then appear as arranged around this subjective point of view and thus capable of being seen from it in accordance with the chosen orientation or perspective. (Friedman 2000a, 191)

This kind of imaginative activity Kant apparently calls "figurative synthesis" or "transcendental action of the imagination" (Friedman 2000a, 190). The possibility of this imaginative activity is not only a necessary condition on the possibility of locating ourselves and external objects in a single space, but it "belongs to the a priori structure of *pure* spatial intuition. In particular, *empirical* spatial intuition or perception is necessarily conceived as taking place within this already-established formal structure" (Friedman 2000a, 191). Specifically then, the 'transcendental synthesis of the imagination' gives a subject the ability to trace the motion of a point and thus to draw a straight line, or imaginatively rotate himself or an object around a point. These actions of the productive imagination are exactly the same actions that are required to make thinkable the constructions of Euclidean geometry—these constructions are made possible by the imaginative construction of straight lines, by their imaginative rotation and translation, and so on. So according to Friedman it is the a priori structure of space and time which makes possible the constructions of Euclidean geometry, which in turn secure the validity of geometrical reasoning.

In order to explain how the mathematical concepts that are generated by construction in the transcendental imagination are necessarily applicable to reality, Friedman invokes the idea of schemata. The pure constructions of the transcendental

imagination are schemata—the result of the interaction between the pure concepts of the understanding and the "independent (spatiotemporal) structures supplied by pure intuition" (Friedman 1996, 438). These schemata, in the case of geometry, are precisely Euclidean constructions of figures (Friedman 1992, 124).[42] That is, schemata are general recipes for working with whatever the faculty of sensibility might deliver to us—general recipes for performing *constructions* (since they are general constructions, independent of any particular deliverances of the faculty of sensibility, they are constructions in pure intuition).[43]

How do these schemata help to resolve the bridging problem? Friedman invokes "the characteristically Kantian idea that pure concepts or categories have objective meaning only when applied to the spatiotemporal world of sense" (Friedman 1996, 438). This task—showing that the pure categories only have 'objective meaning' when *applied* to the world of 'sense'—is part of the overall task of the transcendental deduction. The term 'applying' isn't yet precise. It is, however, what Friedman takes Kant to mean by the term 'schematize'. We saw that, independently of considering the possible application of mathematical concepts to reality, the structures of spatiotemporality interact with the pure concepts of the understanding to produce schemata—constructions in pure intuition. That is, the "mathematical schemata of pure intuition have a dual role: they serve to generate the concepts of pure mathematics, and also, when embodied in particular constructive activities *in concreto*, to provide objects (namely, images) for these concepts" (Friedman 1996, 129). Constructions in pure intuition are then conceptually independent of actual application to the realm of sensibility. However, the transcendental deduction shows us that it is only when thus schematized that the pure concepts of the understanding have objective meaning. "For Kant, our sensible experience is necessarily governed by and framed within a 'space of reasons' consisting, essentially, of logical and mathematical relations" (Friedman 1996, 438).

Friedman seeks to argue that "pure conceptual thought—as represented most clearly by pure logic—only has objective meaning when applied to or 'schematized' in terms of the independent (spatio-temporal) structures supplied by pure intuition" (Friedman 1996, 438). In the context of making this argument, he quotes the following passage from Kant: "that the image-forming synthesis through which we construct a triangle in imagination is precisely the same as that which we exercise in the apprehension of an appearance, in making ourselves an empirical concept of it" (A224/B271, cited at Friedman [1992, 129]). He construes this passage as evidence for his claim that construction in pure intuition is supposed to form a bridge between the unconceptualized deliverances of sensibility and the unschematized forms of the understanding, where the activity of constructing geometrical forms in the transcendental imagination is supposed to provide a bridge constituting function.

At this point, it should be apparent that EG plays a very different role in the argument of the neo-Russellian depending on whether it is read transcendentally or reductively. A neo-Russellian who reads EG reductively will attempt to *show how* one can deploy certain faculties which are understood antecedently of any mathe-

matical concepts or reasoning in order to reason mathematically. This would, in effect, constitute an argument for the reductive reading of EG. So at the heart of the reconstruction of Kant's philosophy of mathematics for a philosopher who holds a reductive reading of EG would lie an argument for maintaining the reductive version of EG. The problem with this approach was one of circularity: it just wasn't clear how one could identify the constructive procedures which are mathematically significant without already knowing which procedures are mathematically significant. Friedman, however, adopts a transcendental version of EG. Friedman's reconstruction of Kant's philosophy of mathematics in effect starts with the assumption that Kant must have held a transcendental version of EG, and combines this assumption with a series of interesting observations about the structural similarities of space, time, imagination and mathematical reasoning. Without the assumption that Kant must have held a transcendental version of EG, there is no reason to think that the structural parallels Friedman details concerning space, time, and mathematics are anything more than interesting structural parallels. It is only when we combine these parallels with the assumption that Kant adopted a transcendental version of EG that we can conclude that the structure of space and time is supposed to transcendentally legitimate mathematical reasoning. For example, we saw that Friedman observes (at Friedman [1992, 90]) the fact that time is endless (and so we can repeat any operation as often as we want) and the fact that the successor function lies at the heart of arithmetic. He then claims that there is a external, transcendentally vindicating relationship between these two facts—that is, he claims that arithmetic is only possible because time has this structure. But it is only in virtue of the fact that he takes Kant's project to assume a transcendental version of EG that he can claim this relationship holds between these two facts. An insistence on external transcendental vindication is required, acting as a kind of glue, asserting that there is a certain grounding relationship between the various faculties under investigation. If Friedman is wrong to believe that Kant assumed a transcendental version of EG, Friedman has noted a parallel only between time and the successor function.[44]

We are now in a position to raise a worry about Friedman's account. Without the assumption that Kant held a transcendental version of EG, Friedman has done nothing more than describe a number of structural parallels among space, time, imagination, and mathematics. Friedman therefore owes us an argument that we must see Kant as holding a transcendental version of EG.

I won't suggest that Friedman cannot find an argument for attributing a transcendental version of EG to Kant. And I certainly haven't suggested that all kinds of external transcendental explanation in philosophy are illegitimate. I've merely indicated that for Friedman's structural parallels to do the work he needs them to, he has to *assume* that Kant held a transcendental version of EG. Once we see how clearly this assumption must stand outside and structure the whole of his argument, we can with clarity ask: Should we make this assumption? What happens if we don't make this assumption?

8. A NON-RUSSELLIAN CONCEPTION OF EXTERNAL TRANSCENDENTAL PHILOSOPHY

At the end of the last section, I argued that a neo-Russellian who wants to hold a transcendental reading of EG is obliged to argue for his attribution of this claim to Kant independently of his reconstruction of the details of the various faculties involved in Kant's account of mathematics. Without such an argument, the neo-Russellian position amounts to a mere insistence that mathematics must be externally vindicated. I want to canvass the possibility of simply not making the assumption that EG is true. I want to consider what an alternative 'vindication' of mathematics might look like. I've already indicated that I take my inspiration for this move from McDowell, who finds in Sellars's account of *empirical* intuitions an insistence on external transcendental vindication, but also an account of what an alternative vindication of our conceptual episodes might look like. In order to develop an account of Kant's philosophy of mathematics which does not assume (either a reductive or transcendental version of) EG, I want to borrow various ideas from McDowell and Sellars. First, I want to legitimate my claim that there is a strict parallel between my suggestion that we reject Friedman's assumption that mathematics must be externally vindicated and McDowell's argument that we reject part of Sellars's account of intuitions. Second, I want to examine McDowell's conception of an internal vindication. Third, I want to outline and borrow the conception of empirical intuition that McDowell borrows from Sellars.

Sellars's interpretation of empirical intuition is anchored by his claim that a careful reading of the *First Critique* reveals that there are *two* duties that Kant needs 'intuition' to perform but that these two duties imposed on empirical intuition cannot be straightforwardly discharged by the same item. Sellars argues that if the project of the *Critique* is to be successful, it will be necessary to separate out—as Kant did not—these two demands that Kant places on empirical intuitions, and seek distinct items to discharge the two duties.[45] What are these two duties that Sellars believes Kant imposes on empirical intuitions? First, according to Sellars, Kant thinks of intuitions as perceptual episodes whose content can be made explicit in judgments and indeed are made explicit in judgments which depend on those intuitions (see, e.g., Sellars [1967, 4–6]). That is, intuitions have contents which can occur in a judgment and so the faculty of concepts must "enter into the constitution of intuitions."[46] Call this the *conceptualizability criterion*. Second, Sellars thinks that Kant sometimes uses (or at least, should have used) 'intuition' in such a way that intuitions are wholly independent of concepts. Sellars explains this manner in which Kant uses the term by invoking the Kantian idea that empirical intuitions are supposed to be the initial cognitive point of contact between the nonintentional, nonconceptual external world and the conceptual, intentional realm of the understanding. For Sellars, intuitions can only be such a fundamental point of contact if they themselves stand outside the conceptual order, guiding and providing a gen-

uinely independent constraint on that conceptual activity. This is an *external* guidedness move: the realm of the conceptual must be guided by items which are perceptually received by our cognitive apparatus but are also nonconceptual (see, e.g. Sellars [1967 12]). Kant, on this view, believes that our conceptual states must be guided by further states which are *entirely* nonconceptual. Call this second duty Sellars thinks Kant imposes on empirical intuition the *nonconceptual guidance criterion*.

It is quite clear that no one item can discharge both of these duties. No one item can have a content which can be expressed in a judgment and so depend for its constitution on the realm of the conceptual and at the same time provide an external constraint on conceptual episodes in virtue of its nonconceptual nature. Sellars therefore argues that Kant should have made a distinction between two types of intuition, one to discharge each of the tasks Kant imposes on intuitions (see, e.g., Sellars [1967, 4]). On the one hand, there will be intuitions which have a content that can be expressed conceptually. These intuitions will fulfill the conceptualizability criterion, and we can call them intuitions qua elements of the conceptualizable manifold. On the other hand, there will be intuitions whose home is the faculty of 'sheer receptivity': a manifold of receptivity which is entirely independent of the understanding. Call these items intuitions qua elements of the manifold of sheer receptivity. The task of the latter intuitions is precisely to 'guide' the former.

Sellars attribution of the conceptualizability criterion to Kant will, of course, require an argument. As we have seen, it is more typical to understand Kantian intuitions as items which are wholly independent of the realm of the conceptual but which can be employed, by various faculties, to guide the judgments made by the understanding. Sellars rejects the idea that this can be Kant's whole story about the nature of perception. For Sellars's Kant, our episodes of perceptual contact with the world can only interact with the understanding in the way Kant requires if these perceptual episodes are understood as already possessing a content which is fit for expression using concepts. We find therefore Sellars reading of Kant as having room in his story of perception to endorse a pre-twentieth-century version of the *Sellarsian* idea that if perceptual episodes are to justify standings in the 'space of reasons'—the space of justifying and being able to justify—then we have to see experience as "so to speak, making an assertion or claim" (Sellars 1997, 144).

Sellars seems to think that Kant's predominant deployment of the term 'intuition' is in the sense of an intuition qua element of the conceptualizable manifold. Kant, according to Sellars, does not typically use the notion of an intuition as if intuitions are nonconceptual items. One important piece of evidence for this claim is Kant's deployment of the two marks which Kant uses to define intuition: the singularity criterion and the immediacy criterion. Sellars's understanding of these criteria quite neatly meets the constraints we developed in §§4–5. For Sellars, an intuition is a perceptual item which 'immediately presents' a particular. Sellars thinks we can (using twentieth-century philosophical language) draw quite a tight parallel between an intuition and a demonstrative. A demonstrative (correctly

deployed by a speaker in a sentence uttered in some context) singles out in a unique way a particular for consideration: the object of the demonstrative must be somehow 'present' to the speaker. Of course, what this presence amounts to continues to be a topic for contemporary philosophy of language. Sellars's suggestion is that the kind of relationship that needs to hold between an object and a speaker for the speaker to demonstratively refer to an object that is perceptually present to him is precisely the kind of relationship that needs to hold between an observer and an object for the observer to be 'immediately' and 'singularly' related to that object in Kant's sense—that is, for the immediacy criterion and the singularity criterion to be discharged.[47] Furthermore, Sellars believes that the content of a Kantian intuition can be expressed using a demonstrative phrase: the content of the demonstrative phrase "This pink cube" used correctly in some sentence in some context is the content which can be articulated from a Kantian intuition of that object. The content of the intuition is not itself a claim or a judgment, but it is that selfsame content which can occur in a judgment, such as "This is a pink cube." For Sellars then, intuitions represent an individual as a *this-such*. Notice that for Sellars the *this-such* nexus which represents the content of an intuition essentially involves the very same concepts whose primary home is in judgments. A demonstrative phrase refers, within the context of a judgment, to a particular object. But it can only do this in virtue of using some concept as singular, singling out a particular *cube*, say. If we are to represent the content which an intuition can have as the content had by a demonstrative phrase, then the intuition cannot be radically independent of the understanding. Demonstrative phrases therefore meet the singularity criterion and the immediacy criterion by singling out a particular perceptually available object through a distinctive combination of putting concepts to singular use and exploiting the perceptual presence of that object. In a moment I'll adopt this way of thinking about intuitions in Kant: an intuition is a presentation of the form *this such*.[48] But for Sellars, this is only one sense of 'intuition' in Kant. When the term has this sense—that is, when we think of intuitions as items whose content can be represented as *this suches* and are as such not radically independent of the understanding—we are dealing with "intuitions qua elements of the conceptualizable manifold."

Since Sellars also believes that Kant has a second way of using 'intuition' according to which intuitions satisfy the nonconceptual guidance criterion, he argues that a satisfactory reconstruction of Kant's task in the *Critique* will introduce intuitions qua elements of the manifold of sheer receptivity (IEMSRs) whose task is to discharge the duty imposed by that criterion—that is, to guide intuitions qua elements of the conceptualizable manifold (IECMs). These essentially nonconceptual items are what Sellars calls *sensations*. The home of sensations is sheer receptivity, which explains my terminology (see, e.g., Sellars [1967, 4]: "We seem, therefore, to be led to a distinction between intuitions which do and intuitions which do not involve something over and above sheer receptivity"). How do IEMSRs guide IECMs?

In discussing EG as a claim about Kant's philosophy of mathematics, I distinguished two ways to read EG: reductively and transcendentally. We can make a sim-

ilar distinction with respect to the way that IEMSRs guide IECMs. A reductive reading of the guiding role of IEMSRs will attempt to show how one realm—the conceptual—can be reduced to another realm—the realm of causal, nonconceptual impingements on sensory organs. This, of course, is a familiar philosophical project. There is no consensus as to what exactly 'reduction' means in this context. Philosophers have articulated various different senses to the term, arguing about what exactly would count as successfully discharging the reductive burden. Sellars, however, thinks that no philosophical project that aims at such a reduction can succeed. His *Empiricism and the Philosophy of Mind* (*EPM,* 1997) is an exploration of and argument against the ambitions of reductive empiricist strategies in the philosophy of mind. As part of his argument, Sellars makes the observation that sometimes we characterize a person as being in a state of knowing. According to Sellars, to so characterize someone is to place them in the "logical space of reasons": the space of justifying and being able to justify. Deploying this terminology, Sellars argues that the "conceptual apparatus we employ when we place things in the logical space of reasons is irreducible to any conceptual apparatus that does not serve to place things in the logical space of reasons" (McDowell 1998, 433). McDowell puts the crucial point thus: "we must not suppose we can understand epistemic states or episodes in terms of the actualization of merely natural capacities" (McDowell 1998, 433).[49] Call this claim made by Sellars in *EPM* the *irreducibility of the space of reasons*.

Given his argument in *EPM* that the space of reasons is irreducible, Sellars will not attempt to canvass a reductive reading of the guiding relationship between IECMs and IEMSRs. Rather, Sellars adopts a transcendental reading of this guiding relationship. This kind of guidance is somewhat complicated. IEMSRs cannot justify IECMs: for Sellars justification can hold only between two items whose content is conceptual, and IEMSRs are, by definition, nonconceptual. Nor can IEMSRs merely cause the IECMs they guide. For causation cannot bring about the kind of responsibility to the external world that is required of IECMs. But what kind of guiding relationship could there be which is, as it were more than causal and less than justificatory? It certainly isn't obvious that such a relationship is possible—although this isn't yet an objection to Sellars, who agrees that it is crucial to find a kind of guidance which is neither rational nor causal.[50]

Sellars is quite self-conscious about the fact that IEMSRs are postulated as the result of a transcendental inference. For Sellars, there must be such items if we are to vindicate IECMs. Friedman is less self-conscious about his deployment of a transcendental inference, but it is there nonetheless. Friedman assumes that in order to legitimate mathematical knowledge, faculties whose epistemological role can be understood independently of mathematics must externally guide mathematical reasoning and mathematical concepts. For Friedman, it is his assumption of a transcendental version of EG which powers his transcendental inference.[51]

Sellars then has made available a reading of Kantian intuitions (IECMs) which does not require us to think of intuitions as wholly nonconceptual. And Sellars

argues that this is indeed Kant's predominant use of the term 'intuition'. For Sellars, if Kant's transcendental task is to be completed, he will have to posit further items—IEMSRs. But McDowell suggests we should agree with Sellars about Kant's predominant use of the term 'intuition' and investigate the possibility that Kant understood his transcendental task in such a way that IECMs are sufficient for a vindication of our conceptual episodes.

I've presented Sellars as assuming that in order to complete Kant's project and 'vindicate' the objectivity of our conceptual episodes, it is necessary to find a radically nonconceptual ground for those conceptual episodes. For McDowell, Kant's "transcendental task is entitling ourselves to see conceptual activity as directed toward a reality that is not a mere reflection of it" (McDowell 1998, 473). There is nothing in this description of a Kantian vindication—general though it is—to support Sellars's insistence that we must ground the realm of the conceptual in items which are wholly nonconceptual. To think that the Kantian transcendental task calls for extraconceptual grounding is a further step and, as such, should require at least an argument on its behalf. McDowell suggests that the germ of an alternative to Sellars's way of reading Kant can be found in Sellars's own identification of IECMs.

The identification of IECMs is, for McDowell, what will allow us to "understand how objects can be immediately present to conceptually shaped sensory consciousness in intuition [so that] we can take this need for external constraint to be met by perceived objects themselves" (McDowell 1998, 473). That is, by thinking of intuitions as "shapings of *sensory* consciousness" (McDowell 1998, 473) by a genuinely external reality and at the same time as elements of the conceptualizable manifold we can see how the content of the intuitions concerns precisely that reality which we are trying to show constrains our conceptual episodes. That is, the intuitions which are passively received by our sensibility from the external world are partially constituted by the realm of the understanding. Those intuitions of the external world have a content which can be expressed through concepts. Our conceptual activity is constrained by the external world precisely in virtue of the fact that the content of our perceptions of that world can be expressed using the very same conceptual apparatus we are trying to vindicate.

Exactly how to understand intuitions—and perceptual episodes in general—in such a way that they are not wholly independent of any contribution on the part of the understanding isn't straightforward.[52] But we can with McDowell follow the Sellarsian idea that an intuition (qua element of the conceptualizable manifold) has a content which is apt for expression with a demonstrative phrase of the form *this such*. Those contents which can be expressed with such a demonstrative phrase are contents of intuitions.

Schematically then, McDowell suggests that Sellars's insistence that in order to vindicate our conceptual apparatus we must ground that apparatus in something nonconceptual can be avoided since that conceptual apparatus can be grounded by items which are partially constituted by the understanding. I would like to make a similar suggestion with regard to Friedman's account of Kant's philosophy of math-

ematics. Friedman's account is structured by the assumption that there must be something outside the realm of the mathematical which can secure the validity of mathematical reasoning and mathematical concepts. I want to suggest that we can find our way to an account of mathematical reasoning and mathematical concepts which vindicates those concepts and episodes of reasoning without insisting that they must be grounded in something independent of mathematics.

I explained how various readings of Kant's philosophy of mathematics start from thinking about Kant's understanding of intuition as a prologue to giving a reading of pure intuition. I shall follow suit by borrowing from McDowell his understanding of Kantian intuition. McDowell's account of empirical intuitions elegantly fits both the singularity and immediacy criteria and preserves Kant's claim that intuitions are linked to sensibility. Furthermore, it allows McDowell to articulate an understanding of Kant's transcendental project without having to invoke an independent item (pure intuition) to mediate between the understanding and sensibility. This means I am free to suggest that talk of pure intuition is based on an abstraction from empirical intuition. On McDowell's understanding of intuition, the content of an empirical intuition is apt for expression using a variety of concepts in a demonstrative phrase. I think that similarly the content of a pure intuition is expressible using mathematical concepts. Indeed, I think that for Kant perceptual contact with mathematical diagrams (that is, diagrams employed as an aid to mathematical reasoning) can also be thought of as an instance of having a pure intuition whose content can be expressed using mathematical concepts. Pure intuitions are mathematically determined abstractions from empirical intuitions. Mathematical concepts describe the *form* of particular *this suches*.

I'll suggest that Kant's vindication of mathematical concepts consists in drawing attention to the various features that demarcate mathematical concepts and reasoning, and the way these concepts bear upon that which is given in intuition. Kant thereby carves out the mathematical as a distinctive way of jointly exercising our sensible and intellectual capacities.

9. A SKETCH OF KANT'S VINDICATION OF MATHEMATICS

For Kant, mathematical diagrams (such as pencil and paper sketches, drawings on a blackboard) play a nontrivial role as the mathematician crafts a mathematical proof. Mathematical diagrams are a critical aid to mathematical demonstration. Kant thinks we can (re)describe mathematical practice this way: by constructing an acceptable mathematical diagram the mathematician is thereby generating an empirical intuition which exhibits a certain form—a form which that mathematical diagram shares with any number of other possible empirical intuitions. By drawing a diagram and employing that diagram in a chain of mathematical reasoning (that is, by doing mathematics) the mathematician is thereby investigating the

form which that diagram shares with other possible empirical intuitions. But for Kant, talk of this form cannot be understood independently of mathematical practice, nor can this form be specified without using mathematical concepts. Mathematical practice grounds talk of the form of an intuition. What it is to be a useful mathematical diagram can only be specified from within mathematical practice. And it is precisely in virtue of being a useful mathematical diagram that the diagram thereby exemplifies a form which could also be shared by any number of possible empirical intuitions. Kant calls this form a pure intuition. Furthermore, through the use of the imagination one can reason mathematically with pure intuitions independently of their manifestation in particular empirical intuitions. Mathematical concepts (such as 'rectangle', 'triangle') specify contents of pure intuitions. Mathematical reasoning discovers universal and necessary properties of the forms it investigates. But all of this is purely descriptive of our mathematical practices and codifies the relationship that mathematics has to our other capacities for acquiring knowledge. In particular, it relates mathematics intimately to intuition by suggesting that we should think of mathematics as investigating the form of intuition. Constructions in pure intuition are not conceptually or metaphysically or explanatorily prior to our practices of mathematical reasoning involving diagrams (which is how those who subscribe to EG think of pure intuition). Talk of pure intuition is not supposed by Kant to provide a justification of mathematical reasoning from a point of view independent of mathematical practices (we can only make this claim given that we have decided to abandon EG).

In the rest of this paper, I'll expand on this sketch of Kant's philosophy of mathematics.

Kant's 'vindication' of mathematics starts by drawing attention to features of mathematical concepts and mathematical reasoning which distinguish those concepts and methods of reasoning from empirical concepts and reasoning. He starts with an argument that there is a critical distinction between mathematical concepts and empirical concepts: mathematical concepts can be defined, empirical concepts cannot. Kant then argues that one reason diagrammatic reasoning is crucial to mathematics is the fact that such reasoning helps to ensure that mathematical reasoning is laid out perspicuously and helps to guard against error. With a distinction between the empirical and the mathematical in hand, Kant draws a distinction between pure and empirical intuition. Talk of pure intuition is grounded in the thought that a mathematical diagram exemplifies a form (a pure intuition) which can be shared by other empirical intuitions. That is, talk of the form of a mathematical diagram—and so the idea of pure intuition—is grounded in mathematical practice. Kant thereby vindicates the idea that mathematics secures universal and necessary truths about the form of intuition.

10. A PRIORI CONSTRUCTION OF MATHEMATICAL CONCEPTS

In the "Discipline of Pure Reason in Its Dogmatic Employment," Kant states that "mathematical knowledge is the knowledge gained by reason from the *construction* of concepts." Immediately he clarifies: "To *construct* a concept means to exhibit *a priori* the intuition which corresponds to that concept" (A713/B741). Notice first of all that Kant gives no reason to think that exhibiting a concept *a priori* need invoke any antecedent faculty of pure intuition. Kant says: "I construct a triangle by representing [better: presenting] the object which corresponds to this concept either by imagination alone, in pure intuition, or in accordance therewith also on paper, in empirical intuition—in both cases completely *a priori*, without having borrowed the pattern from any experience" (A713/B741). For Kant, I can construct a triangle by drawing one—either drawing an ordinary diagram on paper to be used in a mathematical demonstration, or by drawing one "by imagination alone" in pure intuition. In neither case need I be reproducing a triangle I have already seen—nor need I even have seen a triangle before.

We do not need to invoke an independent notion of pure intuition in order to understand Kant's claim about what it means to construct mathematical concepts. Constructing a mathematical concept (in pure intuition) is an ordinary mathematical activity and Kant presupposes we have some familiarity with mathematical reasoning. The key to understanding Kant's idea about constructing mathematical concepts lies in thinking about the contrast he draws between empirical concepts and mathematical concepts. I'll explore Kant's contrast between empirical and mathematical concepts before turning to Kant's claim that mathematics proceeds through the a priori construction of concepts.

10.1 KANT'S DISTINCTION BETWEEN EMPIRICAL AND MATHEMATICAL CONCEPTS

Kant's distinction between empirical and mathematical concepts can be quite simply stated. *Mathematical concepts must be precisely defined, whereas empirical concepts cannot be defined at all.* In mathematics, we must "present the complete, original concept of a thing within the limits of its concept" (A727/B755). By this standard only mathematical concepts admit of definition. "An *empirical* concept cannot be defined at all, but only *made explicit*" (ibid.). Kant argues for this distinction fairly carefully, and I will spend some time expanding on the points that he makes.

It is a mark of mathematical sophistication to realize that the best mathematical method is to give careful, explicit definitions of concepts, that those definitions themselves depend on more simple concepts, and that mathematics then proceeds, through mathematical reasoning, to build up knowledge about those defined concepts. It is a central component of modern mathematics that one must seek precise definitions of mathematical concepts.[53]

Kant thinks that mathematical concepts are distinguished by the fact that "mathematics is the only science that has definitions" (A729/B757) whereas "an *empirical* concept cannot be defined at all, but only *made explicit*" (A727/B756). Kant's idea that empirical concepts never admit of definition is particularly radical and is often under appreciated. It is typically thought that a schematization of a concept must, in effect, be a kind of definition of that concept. But it is clear that Kant is denying that definitions are possible for empirical concepts. In order to see what Kant has in mind by making this contrast, I'll start with his claim that empirical concepts cannot be defined.

How does Kant justify his claim that empirical concepts cannot be defined? He starts with the following:

> An *empirical* concept cannot be defined at all, but only *made explicit*. For since we find in it only a few characteristics of a certain species of sensible object, it is never certain that we are not using the word, in denoting one and the same object, sometimes so as to stand for more, and sometimes so as to stand for fewer characteristics. Thus in the concept of *gold* one man may think, in addition to its weight, colour, malleability, also its property of resisting rust, while another will perhaps know nothing of this quality. We make use of certain characteristics only so long as they are adequate for the purposes of making distinctions; new observations remove some properties and add others; and thus the limits of the concept are never assured. (A727–28/B755–56)

Kant's point is that the question of which properties should be thought of as essential to a given empirical concept might admit of revision depending on our "purposes" and "observations." Kant clarifies the role that such empirical investigations might play in how we should think about empirical concepts:

> Indeed, what useful purpose could be served by defining an empirical concept, such, for instance, as that of water? When we speak of water and its properties, we do not stop short at what is thought in the word, water, but proceed to experiments. The word, with the few characteristics which we attach to it, is more properly to be regarded as merely a designation than as a concept of the thing; the so called definition is nothing more than a determining of the word. (A728/B756)

Kant's idea is that any attempt to precisely define an empirical concept misses what is most crucial about empirical concepts—the fact that the properties which are associated with an empirical concept are always open to possible change. Empirical investigation might at any point lead us to revise our understanding of which properties are essential to (in this case) water and which properties have merely up till now been accidentally associated with water. From this point of view, it would be reckless to insist that water *absolutely* is H_2O. Kant's point is that since *water* is an empirical concept, we must always be open to the possibility that some remarkable empirical data might show our understanding of the concept to be inaccurate—that is, the way we have been understanding (the concept) *water* simply does not square with the facts about (the stuff) water. Of course, in the case of water, such a

revision would be unlikely—a huge number of other scientific findings would also have to be revised. But Kant is emphasizing that for something to be an empirical concept it must always be open to such possible revision in the light of empirical information—for example, information about what it is the concepts denote. It is constitutive of being an empirical concept that the essence of that concept lie open to revision in the light of empirical data.

What about the possibility of *defining* some new empirical concept—presumably through a particular concatenation of familiar empirical concepts? Kant argues that such a procedure will not generate a *definition* of an empirical concept. There is one straightforward reason this is the case. Exactly what falls under an empirical concept is not always clear. Empirical concepts often have hazy boundaries. This is one reason that precisely defining an empirical concept is impossible. If a new empirical concept is defined as the intersection of two familiar empirical concepts, the penumbra of haziness is even more mysterious for the new concept than it was for the two old concepts. This doesn't necessarily prevent the new concept from being extremely useful—the vast majority of cases of its application will be clear. However, we still do not have a *definition* of a concept—for the 'limits' of the new concept are not assured.

There is, however, a more interesting problem facing any attempt to define a new empirical concepts using some already familiar empirical concepts. Kant gives the example of a *ship's clock* (A729/B757). According to Kant, such a 'definition' is best regarded as "a declaration of my project" rather than that as "a definition of an object" (ibid.). When Kant was writing, timekeeping at sea was a serious navigational issue, and I believe that his example here is chosen with great care. Determining longitude at sea was for many centuries simply impossible. It was known that if an effective seagoing timepiece could be developed the longitude problem could be solved. But *accurate* clocks had large, carefully balanced parts, which were ineffective when subjected to the unpredictable motions of the boat and the fluctuating atmospheric conditions of the ocean. Thus constructing an instrument that would count as a *ship's clock* was a far from trivial project. Interestingly, the path taken by the inventor of the ship's clock, Harrison, is relevant here. The problem he faced was this: accurate clocks contained weights and pulleys which were impossibly sensitive to the fluctuating conditions on board ship. Ordinary timepieces no longer counted as timepieces when put on board a ship. Pocket watches were powered by small springs and cogs, and were far less sensitive to fluctuations in external conditions. But they were very inaccurate over any period of time. Users of pocket watches tended to adjust them each day. Harrison tried at first to make the weights and pulleys associated with a large, accurate clock insensitive to the conditions on a ship. For many years, he was thwarted in this project. However, he was finally successful in refining the design of the pocket watch in such a way that the small wheels and cogs would work accurately over a long period of time.[54]

So whether there could be such a thing as a timekeeping device that works on a ship is far from trivial. Whether the conditions that something needs to meet to

be a clock can be combined with the conditions that something needs to meet to function adequately at sea requires a substantial, empirical investigation. There was no a priori guarantee whether a ship's clock could be built, nor, more important, was there any a priori understanding of what a ship's clock would be like. Extensive empirical investigation needed to be done, empirical investigation which involved careful contemplation of the nature of the concepts involved—what does a timepiece need to do? What kinds of workings need it have? What types of things will count as seafaring? That is, in order to characterize a new concept using some familiar concepts, one needs to investigate what bringing those familiar concepts together could amount to, and whether there could be anything that meets those conditions. Substantial empirical information must be used in order to determine what the new concept means and whether it so much as has any application. The putative definition is a declaration of an *empirical* project.

The legitimacy of a new concept—characterized by combining empirical concepts with which one is already familiar—is therefore beholden to empirical features of the world. The legitimacy of the new concept cannot be assured independently of empirical investigation—even knowing what it would be like for something to fall under the putative new concept is often dependent on an empirical investigation. The intended contrast is with mathematical definitions. Mathematics, as Kant tells us, proceeds by definitions. A definition of some new mathematical concept, formed by somehow combining concepts that are already mathematically familiar, is not beholden to empirical facts. The world need not be involved in an analysis of the legitimacy of some new mathematical concept. It might be that some serious reflection is required in order to determine whether the newly defined mathematical concept is legitimate. But this can be done—for example, I can determine whether anything could fall under that concept and, if so, what it would be like—without having to make any appeal to particular, empirical facts. Mathematical concepts are not open to modification or revision in the light of empirical information.

So neither can familiar empirical concepts already in use be defined, nor can we *define* an empirical concept by a stipulative combination of already familiar empirical concepts. All we can do is *draw out* and *investigate* the nature of our empirical concepts. Empirical concepts are always open to revision in the light of empirical information. On the other hand, a mathematical concept can (and for Kant must) be precisely defined: what counts as a *principal ideal domain* (for example) can be specified precisely and independently of any empirical investigation.

Notice though that this characterization—mathematical concepts are distinctive because they can be defined in terms of other, more basic mathematical concepts; empirical concepts cannot be defined because their nature and legitimacy always stand open to empirical information from the world in a way that mathematical concepts don't—merely characterizes the relationship between empirical and mathematical concepts. Indeed, it characterizes this relationship in essentially circular terms—empirical concepts are beholden to empirical information. Kant

does not claim to explain what is distinctive of mathematical concepts in terms of something (pure intuition, the nature of space and time) independent of the mathematical. The distinction will only be clear to somebody already familiar with empirical and mathematical concepts.

Kant's emphasis on the role of definition in mathematics requires that mathematics ultimately starts from certain basic concepts of which it has to be assumed we already have some grasp. Presumably Kant assumed that 'point' and 'line' are the types of basic concept in terms of which other mathematical concepts can be defined. It is fair to say that later mathematics showed that these concepts are not mathematically primitive and that Kant's understanding of these concepts is merely relativized to Euclidean geometry. This error doesn't affect Kant's insight that mathematics must start with definitions.[55]

10.2 MATHEMATICS STARTS WITH THE CONSTRUCTION OF CONCEPTS

Kant says that mathematical concepts "contain an arbitrary synthesis that admits of a priori construction" (A729/B757). I want to investigate this idea of a priori construction.

Kant's claim that mathematicians proceed by the construction of concepts should be thought of as a description of part of mathematical practice, designed to bring further into view the distinction between mathematical reasoning and concepts and empirical reasoning and concepts. That is, Kant makes various points about mathematical and empirical concepts, and these points are supposed by Kant to be mutually illuminating. I don't think that Kant believed there to be a linear explanatory story running from one of his observations about mathematics to another. In this case, the distinction between empirical and mathematical concepts I outlined in §10.1 does not explain or guarantee the possibility of producing an a priori construction of a mathematical concept. In particular, I do not think that mathematical concepts admit of construction *because* they can be defined. Typically, commentators look to *justify* Kant's claim that mathematical concepts admit of a priori construction through an appeal to Kant's ideas about the nature of pure intuition and the constructions that the form of intuition alone makes possible. As I have already indicated, I do not think that any appeal needs to be made to an independent, antecedent form of pure intuition in order to understand Kant on construction in mathematics. But I don't intend to use Kant's distinction between empirical and mathematical concepts discussed in §10.1 to supplant pure intuition in an attempt to *show* why, for Kant, mathematical concepts can be constructed a priori.[56] Instead, I plan to use that distinction to *illuminate* his ideas about construction in mathematics. Kant's distinction between empirical and mathematical concepts is not, it turns out, fully available prior to his understanding of mathematical construction.

According to Kant, "To *construct* a concept means to exhibit *a priori* the intuition which corresponds to that concept" (A713/B741). I'll start with the question

of what it means to exhibit an intuition corresponding to a mathematical concept. According to a familiar Kantian claim, there seem to be two basic cases of mathematical construction. "I construct a triangle by representing the object which corresponds to this concept either by imagination alone, in pure intuition, or in accordance therewith also on paper, in empirical intuition" (A713/B741). The two possibilities seem to be a construction by imagination alone (so solely in pure intuition) and a construction on paper which is *also* "in accordance with" pure intuition. I think it is helpful to start by thinking about the role that a diagram constructed in empirical intuition plays in aiding mathematical reasoning. This will subsequently help to bring into view the nature of pure intuitions.

Kant argues that a mathematical construction "must as intuition, be a *single* object, and yet none the less, as the construction of a concept (a universal representation), it must in its representation express universal validity for all possible intuitions which fall under the same concept" (A713/B741). By this I take Kant to mean that what of interest in a mathematical construction—indeed, what is of interest for mathematical reasoning—is that the construction manifests a form which can be shared by any number of possible empirical intuitions and that mathematics reveals facts which hold universally of all empirical intuitions which share that form. What mathematics investigates is none other than the forms of possible empirical intuitions. It is tempting to think that Kant supposes that we have an independent grasp on the idea of a form of an intuition (or at least on the idea of the form of intuition) and that he is defining mathematics as that science which investigates these forms (or as the science which investigates the form of intuition itself). Instead, I'd like to suggest that the situation is almost the reverse. It is mathematical concepts and practices which ground Kant's talk of mathematics as investigating what is universally valid for all possible intuitions which fall under a particular mathematical concept—that is, all intuitions which exhibit a certain form.[57] Kant's aim is to explain the idea of the form of an empirical intuition in terms of mathematics, not to explain mathematics in terms of the form of intuition.[58] Generally then, my suggestion is that we should read "The Discipline of Pure Reason in Its Dogmatic Employment" as a suggestion by Kant that we can distinguish mathematical reasoning and concepts from empirical reasoning and concepts by thinking of mathematical practice as investigating the forms of empirical intuitions—forms which "express universal validity for all possible intuitions."

We can perhaps make more sense of this suggestion by noting that Kant's invocation of *form* is always designed to arise as an abstraction from some particular type of *matter*.[59] An example is forthcoming in modern logic. Consider the practice of paraphrasing a natural language sentence to reveal its logical form. In so doing, we distinguish between the content of the sentence and its (logical) form. One (nonindependent) way to specify what we are doing when we make such a paraphrase is this: that we are making perspicuous the aspects of the sentence relevant to logical inference. What counts as the form of the sentence only makes sense in the context of thinking about what matters for logical inference.

If we take the mathematical practice of reasoning involving diagrams seriously on its own terms, it is clear that mathematical practice can give rise to a distinction between form and content. Mathematicians are clearly not interested in empirical diagrams qua empirical diagrams. Mathematical practice isolates something which the mathematician is interested in. Given a particular empirical diagram, the mathematician is interested in that which is relevant for mathematical inference. We can call this the form of the diagram. By assuming we have some grasp on mathematical practices, we can generate the idea that a mathematical diagram has a form. The form exemplified by a mathematical diagram is a form which (theoretically) could be shared by any number of other possible intuitions. Since the mathematician isn't interested in the intuition "empirically" (A716/B744) but is interested in "whatever follows from the universal conditions of the construction" (A716/B744), Kant suggests that mathematical results hold "universally" for all the possible empirical intuitions which manifest that form. As Kant puts it in the Transcendental Deduction: "Through the determination of pure intuition we can acquire *a priori* knowledge of objects, as in mathematics, but only in regard to their form, as appearances" (B147).

As that quotation from the Transcendental Deduction reminds us, mathematics is supposed by Kant to be concerned with pure intuition. The form which a mathematical diagram exemplifies can be isolated by thinking about that which is relevant to mathematical inference. Such a form is a pure intuition. Mathematical concepts can be used to describe the content of pure intuitions—they describe the form which the mathematician investigates.[60]

What is really of interest when I use an empirical diagram as an aid to mathematical reasoning is the fact that the empirical diagram has a form which can be specified using mathematical concepts, and it thus exemplifies what we can call a pure intuition. But Kant thinks that imagination is a faculty in which we can construct and consider the pure intuition alone, independently of any particular empirical intuition, and so independently of my having an empirical intuition with that form. In order to have such a pure intuition, I need only imagine those aspects of a mathematical concept which are relevant to mathematical inference. When I construct a concept in imagination I am free to ignore anything not relevant to mathematical inference.[61] Nevertheless, Kant believes that mathematical practice constrains construction in the imagination in such a way that if a pure intuition can be constructed, it is always possible that there is an empirical intuition which has that form.

But what can be said about why mathematical concepts admit of *a priori* construction? On the one hand, mathematical constructions are a priori simply because I can produce a successful construction of a mathematical concept without ever having seen anything exemplifying that form, and without having to engage in any empirical investigation in order to produce that construction (unlike in the case of a ship's clock). The construction is not beholden to empirical information. But furthermore, we can now see that in order to produce a pure intuition with this form

I need not produce an empirical intuition with that form. I can construct a mathematical concept "by imagination alone" (A713/B741).

11. MATHEMATICAL PROOF

So far, I have discussed Kant's emphasis on the distinction between mathematical and empirical concepts, and how that distinction is connected to Kant's claim that mathematics starts with the a priori construction of concepts. Now I want to turn to the question of how mathematical proof itself proceeds. Kant describes an example of geometrical reasoning thus:

> Since [the geometer] knows that the sum of two right angles is exactly equal to the sum of all the adjacent angles which can be constructed from a single point of a straight line, he prolongs one side of his triangle and obtains two adjacent angles, which together are equal to two right angles. He then divides the external angle by drawing a line parallel to the opposite side of the triangle, and observes that he has thus obtained an external adjacent angle which is equal to an internal angle—and so on. In this fashion, through a chain of inferences guided throughout by intuition, he arrives at a fully evident and universally valid solution of the problem. (A716–17/B744–45)

I think that Kant is here simply describing an ordinary example of a geometrical proof—conducted perhaps with pencil and paper or chalk and blackboard. Kant's key point is quite simple: diagrammatic reasoning makes steps in mathematical reasoning perspicuous.

One central case of constructing a mathematical proof, for Kant, is to start with a particular empirical diagram which exemplifies a certain form. That form, I've argued, cannot be specified independently of the process of mathematical reasoning in which the construction of that diagram is embedded. Mathematical reasoning proceeds by performing further constructions on this diagram. The diagram "secures all inferences against error by setting each one before our eyes" (A732/B762); it represents the concept in such a way that "all errors are at once made evident" (A735/B763). Kant's idea is rather straightforward. Intuition is not designed to play a role of transcendentally securing the validity of the steps of mathematical reasoning. Rather, Kant is simply drawing attention to the idea that a well-constructed proof will make clear exactly what step is being performed and help to show to the practiced mathematician that the step is legitimate. The legitimacy of the step will only be apparent to somebody with mathematical training. Kant's idea is simply that I can make a mathematical proof clearer—help to safeguard against error—by spelling out carefully the individual steps involved until each step is made manifest. A diagrammatic representation is particularly helpful in "securing inferences against error."

I think that this idea of representing as clearly as possible the individual inferential steps taken in a mathematical proof can help us to approach Kant's thoughts

on arithmetic and algebra.[62] Kant emphasizes the importance of perspicuous manipulation of symbols in arithmetical and algebraic reasoning. "When, for instance, one magnitude is to be divided by another, their symbols are placed together, in accordance with the sign for division" (A717/B745). We then manipulate these equations, just as we manipulated our geometrical sketch, to produce an answer:

> Even the method of algebra with its equations, from which the correct answer, together with its proof, is deduced by reduction, is not indeed geometrical in nature, but is still constructive in a way characteristic of the science. The concepts attached to the symbols, especially concerning the relations of magnitudes, are presented in intuition; and this method, in addition to its heuristic advantages, secures all inferences against error by setting each one before our eyes. (A734/B762)

The methods for the correct manipulation of equations are, of course, taught at school. For example, consider the way that it is customary to calculate long multiplication. The advantage of this method is its perspicuity—once we have learned the technique, not only does it secure against error by making us represent each step of our calculation, but it allows us to infer the result of the calculation simply by observing the bottom line of our rows of numbers.

Notice that on my reading, Kant is not claiming that we can secure the validity of the steps in reasoning from a point of view external to the realm of the mathematical, as in the neo-Russellian assumption EG. I don't take Kant's fundamental motivation to be securing mathematical reasoning against some kind of skeptical doubt. Instead, Kant is merely explaining how somebody familiar with mathematical reasoning can do their best to safeguard against error by representing as carefully as possible each inferential step. There is no transcendental guarantee that each of the steps in diagrammatic mathematical reasoning preserve universality and necessity. We might draw a comparison with reasoning in natural language. I can help secure against error in a long piece of natural language reasoning by breaking down the steps of reasoning as slowly and clearly as possible. Of course, Frege provides us with a symbolic way to help check a complicated piece of reasoning for errors. But before Frege's work, it would quite clearly be possible to break down a chain of reasoning into individual steps and to check the validity of the whole chain by checking the validity of each of the individual steps. And this in turn simply means checking to see whether each step accords with basic patterns of reasoning one is familiar with. Just so, the mathematician is urged by Kant to break her proof down into the simplest steps, and check that each step is in accord with familiar, basic patterns of mathematical reasoning. This is most felicitously done by use of a diagram, where any errors are far more likely to emerge.

For Kant, a mathematical construction expresses "universal validity for all possible intuitions which fall under the same concept" (A713/B741). A step in mathematical reasoning is valid just in case the result of applying that step also results in a construction which is universally valid "for all possible intuitions which fall under the concept." But as I've urged, this can't be applied as an independent test of mathematical validity—it is simply a redescription of the result of a mathematical proof.

A mathematical proof need not be conducted using an empirical diagram. This is merely an aid to reasoning. The mathematical proof is really concerned with what follows universally when I construct a mathematical concept by imagining a pure intuition. It seems that it should be open to Kant to maintain that we can construct a mathematical proof in imagination alone. In that case, I would simply have to ensure that I only perform mathematically legitimate constructions on my imagined pure intuition, where we take for granted an understanding of what counts as good mathematical practice.[63]

One potential objection to the role I suggest we give diagrammatic reasoning in thinking about Kant's philosophy of mathematics arises from a consideration of indefinite iteration. The idea of being able to indefinitely repeat some operation (such as a step in a construction, or placing a stroke) seems to be of considerable importance in Kant's thinking. Friedman and Parsons seem to argue that one of the key roles of pure intuition is to provide an external guarantee that mathematical procedures can be indefinitely iterated. But, the objection goes, indefinite iteration cannot be represented straightforwardly in a diagram, or any other intuition. Now, it isn't obvious to me that we can't indicate that a step should be repeated indefinitely in a diagram ('2, 4, 6, 8, . . . ' seems to be an example). But what underlies the objection is whether it is possible to find an account of mathematical reasoning that does not appeal to an independent transcendental perspective in order to explain *going on in the same way*. It is true that I haven't here discussed whether this notion needs an external transcendental backing. But I think it is quite possible to understand the idea of going on in the same way without needing to give it an external transcendental vindication. The question is, I believe, extensively and adequately addressed in the scholarly literature on Wittgenstein and rule following.

12. MATHEMATICS, SPACE, AND TIME IN THE *CRITIQUE*

Kant's doctrines concerning the nature of space and time might seem to problematize the account I have offered here of Kant's philosophy of mathematics. Surely (goes the objection) Kant's doctrines concerning space and time in the *Critique* make clear that Kant intends for the form of pure intuition to provide an independently accessible grounding for the possibility of mathematical reasoning. For example, Kant writes in "The Transcendental Exposition of the Concept of Space":

> Geometry is a science which determines the properties of space synthetically and yet *a priori*. What, then, must be our representation of space, in order that such knowledge of it may be possible? It must in its origin be intuition; . . . Further, this intuition must be *a priori* . . .
>
> Our explanation is . . . the only explanation that makes intelligible the *possibility* of geometry, as a body of *a priori* synthetic knowledge. (B40–41)

In this passage it can easily appear that Kant is appealing to the independently given nature of space to explain (and hence ground) the possibility of geometrical reasoning. What then, on my reading, can be made of Kant's claims concerning the nature of space and time?

I have suggested that we reject the idea that Kant sought a means to ground the possibility of mathematical reasoning from a point of view independent of mathematics itself, in particular, I have argued that he didn't think that space and time—as the form of intuition—could be understood independently of mathematics and used to secure mathematical reasoning and concepts. But Kant clearly thinks that space and time are intimately related to mathematics. I suggest that rather than reading Kant as holding that space and time can provide an independent explanation of mathematics, we read him as thinking that his doctrines concerning space and time are a means to codify both the nature of space and time and the distinction between empirical and mathematical concepts and reasoning.

The Transcendental Aesthetic begins by drawing a contrast between the form and the matter of sensible intuition (A20/B34). What this contrast amounts to cannot fully come into view until the matter of sensible intuition is more clearly understood and a principle is specified which allows us to determine first a notion of form for empirical intuitions and then a form for empirical intuition. The work of the Transcendental Aesthetic in discussing the form of intuition is thus provisional, relying on work much later in the *Critique*. Kant makes clear throughout the Transcendental Aesthetic that it is mathematical practice which should be thought of as giving sense to the form/matter distinction which he provisionally identifies at the beginning of the Aesthetic. As the *Critique* proceeds, Kant fleshes out this understanding of mathematics. Mathematics can be thought of as investigating universal and necessary features of 'forms' which can be exemplified by various empirical intuitions. Kant uses this idea to ground the further thought that mathematics reveals the a priori form of our experience of sensible objects. His suggestion is that space and time turn out to constutute this form. We do not need to see the pure forms of intuition—space and time—as required for Kant's account of cognition independently of mathematical reasoning. Instead, Kant precisifies our pretheoretic ideas of space and time by calling them the pure forms of intuition. Kant's claim that space and time exhaust the pure forms of intuition is a codification of the relationship between empirical and mathematical concepts and reasoning which we have seen Kant develops later in the *Critique*. Kant unites his observations about the distinction between empirical and mathematical concepts by thinking of space and time as pure intuitions themselves. It is precisely for this reason that Kant believes we can talk of the pure intuitions of sapce and time as grounding mathematical practice. Thinking of space and time as the ground for mathematics allows us quite neatly to specify the relationship between empirical and mathematical concepts and reasoning. "The Discipline of Pure Reason In Its Dogmatic Employment" is an illustration of how useful it is to organize the distinction between mathematical and empirical concepts and reasoning by talking of mathematics as grounded in

the form of intuition. It is, in effect, a vindication of Kant's claim that space and time ground mathematics.[64]

This, of course, is only a sketch of a reading of the Transcendental Aesthetic. I don't have space here to further consider Kant's claims concerning the relationships between space, time, mathematics, and the form of sensibility. I'll simply note that I have been able to make Kant's philosophy of mathematics quite appealing without needing to rely on any *specific* doctrines concerning the nature of space and time. So if we wanted to defend Kant's idea that the form of sensibility which mathematics reveals is also space and time, there is as yet no reason to think that we have to think of space and time as having the properties of Euclidean geometry. It is consistent with everything I have said about Kant that the form of space which mathematics reveals is far less determinate than that space described by Euclidean geometry.

13. MACFARLANE'S OBJECTION TO MCDOWELL AND A RESPONSE

Contemporary philosophers of mathematics often discuss the nature of mathematical objects and our epistemic access to these objects. I've outlined my reading of Kant's philosophy of mathematics without having to address the question of mathematical objects for Kant. I have suggested that the mathematician, when he works mathematically with a diagram, can be said to be regarding that diagram with respect to its (mathematical) form. This mathematical form we can think of as a pure intuition. Although mathematical concepts are constantly employed as the mathematician works with mathematical diagrams, mathematical objects do not have a role to play in this picture.[65]

Having argued that any commentator on Kant's philosophy of mathematics must say something about empirical intuitions, I borrowed an account of empirical intuitions from McDowell. On that account, empirical intuitions—the deliverances of the faculty of sensibility—are structured by the same concepts which we use to express our judgments. McDowell develops this idea in the course of trying to dissuade us from thinking that conceptual episodes such as knowings must be grounded in sensory items which are wholly independent of the understanding. By coming to see how the deliverances of sensibility are already informed by higher conceptual capacities, McDowell suggests that we would thereby have vindicated those conceptual capacities. I borrowed this understanding of empirical intuition in order to make room for the thought that the content of a pure intuition can be expressed through the deployment of mathematical concepts. MacFarlane argues that this view of McDowell's—that we cannot understand the operation of the faculty of sensibility in cognition entirely independently of its joint cooperation with the understanding—neither expresses a satisfactory philosophical position, nor a

convincing reading of Kant. MacFarlane argues this is because McDowell's view cannot account satisfactorily for mathematical content. My account of Kant's philosophy of mathematics can be deployed in a response to MacFarlane's attack on McDowell's reading of Kant. I'll finish this paper with my response to MacFarlane on behalf of McDowell.

MacFarlane argues that McDowell is obliged to give an account of mathematical content, but that it is unclear how such an account could go. For MacFarlane, McDowell aims to give an account of how it could be that "empirical thought come[s] to be rationally constrained by how things are with the objects and relations it is about" (MacFarlane 2004, 256). As part of this account, McDowell argues that thought can only be rationally constrained by its objects if experience itself is "conceived as the passive actualization of concepts in sensory receptivity" (MacFarlane 2004, 258). MacFarlane summarizes McDowell's version of the Kantian insight this way:

> **Weak Kantian Thesis:** In order to have content, *empirical* concepts must have some relation to intuition, that is, to actual or possible sensible experience. More precisely: they must be either (i) capable of passive actualization in sensory receptivity or (ii) defined by their roles in a theory in which concepts that are so capable also figure. (MacFarlane 2004, 252)

According to MacFarlane, McDowell is careful to defend this view only for empirical concepts, whereas Kant defended the view for all concepts—including mathematical concepts. Kant defends, that is, the,

> **Strong Kantian Thesis:** In order to have content, concepts must have some relation to intuition, that is, to actual or possible sensory experience. More precisely: they must be either (i) capable of passive actualization in sensory receptivity or (ii) defined by their roles in a theory in which concepts that are so capable also figure. (MacFarlane 2004, 252)

It quickly becomes apparent that MacFarlane believes that in trying to defend the Strong Kantian Thesis (SKT) for mathematical concepts, Kant addressed himself to the following question:

> If it is to have content, mathematical thought must be rationally constrained by how things are with its *objects*, and not just by more mathematical thought. But what is the mechanism by which mathematical objects are made manifest to us, so that facts about them can serve as *reasons* for our mathematical beliefs? (MacFarlane 2004, 258)

Kant himself (according to MacFarlane) answers this question (and thereby attempts to defend SKT) by arguing that mathematical concepts find content "through our ability to construct geometrical figures a priori in pure intuition" (MacFarlane 2004, 253). But to defend this view would require "all the baggage of transcendental idealism" (MacFarlane 2004, 252). Since he isn't prepared to defend Kant's transcendental idealism, "for good reason, McDowell does not want to be

saddled with Kant's view that our grasp of geometrical concepts depends on our ability to construct geometrical figures *a priori* in pure intuition" (MacFarlane 2004, 253). But then McDowell owes us another account of what it is that secures the legitimacy of mathematical concepts—in particular, why it is legitimate for us to think that mathematical thought is constrained by how things are with its objects.

MacFarlane seems to think that applied to mathematical concepts, SKT simply *means*:

> **MO:** "If it is to have content, mathematical thought must be rationally constrained by how things are with its *objects*" (MacFarlane 2004, 258)

Furthermore, he clearly believes that in MO we have to understand the realm of mathematical objects as a genuinely external constraint on mathematical practice. These objects are not, as it were, explanatorily idle. To hear SKT as straightforwardly entailing MO (where MO itself is understood as requiring that mathematical objects are not explanatorily idle) is to put a certain understanding on what SKT means. We can call this SKT_{++}. But SKT_{++} is not the only way to hear SKT. We will only be moved to hear SKT as expressing SKT_{++} if we doubt whether mathematical reasoning is able to secure the truth of mathematical judgments. I have developed a reading of Kant's philosophy of mathematics according to which we do not doubt whether mathematical reasoning can secure truth. Instead, mathematical practice constrains mathematical thought: in particular, mathematical reasoning constrains what mathematicians can construct. A mathematical construction can be understood as exemplifying a form which can be shared by any number of possible empirical intuitions. It is thus mathematical practice which grounds this talk of forms of empirical intuition. Mathematical concepts serve to express the content of these (pure) forms of our representations. Mathematical concepts do thus relate to intuition (as SKT requires); but they relate to intuition at one remove (as it were): they are not 'actualized' in receptivity, but serve to characterize the forms of intuitions which are investigated in mathematics. If my account is successful, I have defended SKT for mathematical concepts by giving it a sense which does not require me to defend MO. Call this version SKT_{-}.[66]

MacFarlane's chief argument for his claim that McDowell cannot ignore the question of mathematics appeals to a particular line of thought which he claims to locate in various post-Kantian analytic authors. According to that line of thought, a 'holistic' neo-Kantianism claims to be able to account for mathematical content without needing to invoke intuition at all. But once we can account for mathematical judgments without needing to relate mathematical concepts to intuition, we seem to have a model for what it is for a judgment to be objective without needing to invoke intuition. Then "it becomes tempting to extend the holistic, inferentialist account of the content of mathematical concepts to an account of content in general" (MacFarlane 2004, 262). Effectively then, there is a strain of analytic philosophy within which "the rejection of the Strong Kantian Thesis led to the rejection of

the Weak" (MacFarlane 2004, 262). Inferentialism, according to MacFarlane, rejects both SKT and the Weak Kantian Thesis (WKT). It has an elegant story to tell about both mathematical and empirical concepts. But, argues MacFarlane, McDowell seems to reject SKT, defend WKT, and yet not say anything about mathematical concepts. Unless McDowell does more work, inferentialism is bound to look more satisfying.

But I've argued McDowell need not be understood as rejecting SKT. McDowell only rejects SKT_{++}. I've defended a Kantian philosophy of mathematics McDowell could accept which attributes to Kant SKT_{-}. Mathematical concepts are related to intuition precisely by being concepts which describe pure intuitions, where pure intuitions are forms which empirical intuitions can exemplify and which are determined by mathematical practice. Mathematical concepts are vindicated in virtue of their relationship to intuition. But the relationship of mathematical concepts to intuition is at one remove.

14. CONCLUSION

In the first half of this paper, I suggested that a certain assumption about how to read Kant's philosophy of mathematics is made by virtually all those who write on Kant's philosophy of mathematics in the analytic tradition. This, I suggested, is the assumption that there must be something external to mathematics which somehow grounds or justifies mathematical reasoning. I argued that we can bring out some of the disagreements internal to analytic commentary on Kant's philosophy of mathematics by thinking of the disagreements as disagreements about how to make this assumption precise. But ultimately I argued that we have not been offered a clear vision of how Kant imagined this grounding of mathematics could take place. Taking my lead from McDowell, who argues for a similar thought with respect to other aspects of Kant's philosophy, I suggested we drop the dogma that Kant must have sought a grounding for mathematics that is external to the mathematical. This allowed me to develop an account of Kant's views on mathematics which focused on his interest in the perspicuity of diagrammatic reasoning, and which argued that pure intuitions are best thought of as mathematical abstractions from particular instances of diagrammatic reasoning.

NOTES

Thanks to Nick Robertson for comments on an early draft. Thanks to David Finkelstein and Erica Holberg for reading sections of the *Critique of Pure Reason* with me in 2003. Thanks also to the Dissertation Support Group at the University of Chicago (Dan Groll, Nat Hansen, Erica Holberg, Jennifer Lockhart, and Josh Schwartz) for reading an earlier draft of this paper and giving extremely

helpful comments. Stina Bäckström read a late draft and offered valuable insight from a fresh perspective. This paper was inspired by a class Jim Conant taught on Analytical Kantianism at the University of Chicago in 2003. He has given me detailed comments on every paragraph of this paper, and he has been extremely encouraging at every stage in its composition. So many of the ideas are indebted to him in various ways, there is no way I could acknowledge each debt individually.

1. This reading was developed in conjunction with John Haugeland and Jim Conant.
2. The objection I have in mind is that of John MacFarlane, laid out in his (2004). My response to MacFarlane is to be found in §13.
3. Published as McDowell (1998).
4. All references are to Kant (1929), unless otherwise noted. References to Kant (1929) are standard.
5. "The concept of 12 is by no means already thought in merely thinking this union of 7 and 5; and I may analyse my concept of such a possible sum as long as I please, still I shall never find the 12 in it" (B15).
6. For example, Beck (1965), Hintikka (1992a, 1992b), Parsons (1969, 1992a, 1992b), Thompson (1972), Young (1992), Friedman (1992), Carson (1997).
7. When Russell is discussed in the analytic literature on Kant's philosophy of mathematics, it is a certain early Russell who is under consideration. Paradigmatically, we are interested in the views of the Russell who wrote *Principles of Mathematics*. Russell's views did not remain constant—for example, he quickly abandoned the view that the truths of mathematics are synthetic. (Although Russell's view on syntheticity is so different from Kant's that this hardly marks a shared thought anyway. Compare the parenthetical remark at the end of note 11, and see also the paper by Michael Kremer in this volume.)
8. The question of why Russell and others felt it important to search for a foundation for mathematics is a subtle one, nor is it clear that these foundational projects were well justified. I shan't address those questions here.
9. See Friedman (1992, 78–79). Although Kant's account of mathematics can be read as suggesting that continuity be understood in terms of continuous motion, it isn't clear to me that we *have* to read Kant this way. The reading of Kant I suggest below doesn't commit me to this idea.
10. Hylton (1990) argues for a more general point: that Russell's project between 1903 and 1910 should be seen as an attempt to refute the British idealists who had been influenced by Kant. On the reading of Kant favored by these idealists, we can never know anything about how reality actually is. In particular, the mathematical antinomies of the Transcendental Dialectic show, according to these idealists, that knowledge of the objective world is always conditioned by and relative to our limited human cognitive faculties. 'Mathematical knowledge' is a case in point; mathematical facts are only a feature of our human perspective on the world. Russell, on the other hand, thought that developments in mathematics and logic in the nineteenth century could show that mathematics itself represented a form of genuine objective knowledge of reality and that such truths themselves were independent of human modes of cognizing the world. His aim was to show that the true propositions of logic could generate, indubitably, all the propositions of mathematics, thus showing that we do not need to introduce distinct methods of reasoning for the mathematical sciences—in particular, methods of reasoning dependent on human cognitive faculties which, according to the idealists, Kant used to explain mathematical reasoning.
11. According to Russell, there is another argument the Kantian might deploy for the conclusion that space is Euclidean. According to this second argument, even though the a priori intuition of space does not guarantee that space is Euclidean by grounding certain forms of reasoning, nevertheless an a priori intuition of Euclidean space assures us that space must be Euclidean—that among other spaces, Euclidean space is the one that exists. In effect, this would be an "immediate intuition guaranteeing [a new] primitive proposition" (Russell 1903, §434). Russell has two objections to this argument. First, Russell believed that there were various geometries that might accurately describe space, and an 'immediate intuition' was not a principled way to choose between these possibilities. (Note that in 1903, *physics* provided no reason for choosing one geometry over another.) Second, and more important for Russell, this 'immediate intuition' wouldn't be a *mathematical* intuition—for "mathematics is thoroughly indifferent to the question whether its entities exist" (Russell 1903, §434). So either way, the *nature of mathematical reasoning* does not ensure

that space is Euclidean. (Note that both Kant and early Russell think that the propositions of mathematics are synthetic. However, the agreement between Kant and Russell is only superficial, as Russell himself notes—not only is mathematics synthetic, but so is logic, and so also are "all other kinds of truth" (Russell 1903, §434). What is important is that Russell thinks that logic is on all fours with mathematics, and with this Kant disagrees.)

12. There is a more modern version of Russell's criticism of Kant which is often found in discussion of Kant's philosophy of mathematics. This criticism turns on the fact that Kant is unable to make the modern distinction between pure and applied geometry. The critic uses this fact to further argue that there is no room for a uniquely human faculty of intuition which provides us with a priori knowledge of either mathematical truths or space. The reasoning (quickly) goes like this: pure geometry is the study of a particular set of axioms, in which one considers the relations between, and consequences of, these axioms. Applied geometry, however, is concerned to establish an appropriate set of axioms to model the real physical world. Pure geometry will employ only logical reasoning, hence will not involve any appeal to human faculties of intuition. Nor will pure geometry investigate just one set of axioms. Applied geometry, although it will generate information about the real world, will be dependent on the results of a host of experiments and theories devised by physicists—and will certainly not be a priori. (This objection is summarized in more detail in Barker [1992, 226–30] and Friedman [1992, 55–56].) Properly viewed, logical reasoning is not dependent on human abilities, and genuine information about the nature of real space is not a priori. Ultimately then on this line of criticism, Kant has neither a sound picture of mathematical reasoning, nor a sound picture of the relationship between mathematical space and real space. This is not the appropriate place to respond to this supposed criticism of Kant.
13. This word suggests that there is also some kind of continuity in logic underlying the substantial differences. For an illuminating discussion of the continuity between Kantian and post-Kantian logic, see MacFarlane (2002).
14. For example, we might choose to represent the principle of mathematical induction thus: $\forall P[(P0 \wedge \forall n[Pn \rightarrow PSn]) \rightarrow \forall nPn]$ This schematization uses the tools of second-order logic and is not equivalent to any formula of first-order logic. There is no agreement about whether the forms of reasoning that underlie second-order logic are purely logical. For more discussion of this question, see Boolos (1985).
15. This hedging is due to Friedman, who does seem to think that ultimately Kant's philosophy of mathematics cannot provide a secure grounding for mathematical reasoning, but that it is nevertheless far more insightful and important than Russell gives it credit for.
16. That is, a neo-Russellian accepts Russell's fundamental exegetical assumptions about how to read Kant, but not his assessment of Kant's mathematical project. The motivation for this terminology comes from Friedman, who describes himself as a Russellian (although on my terminology he becomes a neo-Russellian). However, some of the authors I call neo-Russellians would not be Russellians on Friedman's use of the term. My use of the term neo-Russellian differs from Friedman's use of the term Russellianism in this respect: Friedman seems to think that the core of Russellianism is the denial of the idea that pure intuition provides something like a model for mathematical axioms.
17. They thus differ from the anti-Russellian, who thinks that we should not ascribe KNL to Kant. I explained (in note 12) that one typical reason for finding Kant's philosophy of mathematics implausible is his commitment to Euclidean geometry. Given that not only are non-Euclidean geometries consistent, but further it is probable that our universe is in fact non-Euclidean, how can any philosophy of mathematics that holds that space must be Euclidean be credible? This criticism is of course linked to the observation that Kant does not distinguish between pure and applied geometry. One option is to reject KNL. Mathematical reasoning proceeds entirely logically. Pure intuition doesn't make possible certain forms of reasoning. Rather, pure intuition is just a model for a set of *axioms* for mathematics. So on this reading, we find in Kant the basis of an axiomatic approach to the foundations of mathematics and hence a valid pure/applied distinction. Kant apparently thought mathematical truths have genuine empirical import and mere formal consistency cannot resolve empirical questions. So axioms must be interpreted, and this is to be done by invoking the faculty of intuition as a source of genuine objective meaning for the axioms. On this reading, we see that it is then a further philosophical position (which perhaps Kant was wrong about) that space must be Euclidean, so it is perfectly consistent with Kant's

broader philosophy of mathematics that there might be consistent non-Euclidean geometries—in fact, Kant's philosophy of mathematics is set up in such a way that it allows room for such a possibility. That is, Kant picked out a set of axioms to describe the model supplied by pure intuition and hence space. His axioms for space were, it turns out, incorrect, but this does not affect Kant's broader philosophy of mathematics. This will be the anti-Russellian view.

18. We can get clearer on the views of the neo-Russellian if we pause to examine the views of the anti-Russellian. A key anti-Russellian is Lewis White Beck. Beck's claim concerning the status of axioms in Kant's mathematics is derived from reflection about the synthetic nature of mathematical truths. Beck argues that Kant did not hold that the synthetic nature of mathematical propositions is due to the forms of reasoning that have to be employed. In fact, Kant, according to Beck, thinks that mathematical reasoning can proceed entirely according to the 'law of non-contradiction' (that is, mathematical reasoning is, for Kant, logical reasoning, see, e.g., B14); rather, a proposition is synthetic if its deduction relies on synthetic propositions. Beck's Kant says the basic axioms of mathematics are synthetic "since they are not established by the analysis of a given concept, but only by the intuitive construction of the concept, which will show the necessary presence of attributes not included in a logical definition of the subject" (Beck 1965, 89). The syntheticity of the axioms is then inherited by the propositions deduced from them. But a standard modern example of analytic truths are truths that follow from mathematical definitions. This might lead us to think that Kant's problem was that the mathematical vocabulary of his time was not sophisticated enough to enable him to supply definitions explicit enough to deduce mathematical propositions analytically. (Beck attributes this thought to Lewis [Beck 1965, 88].) Beck thinks this is not the case; he thinks that there is something fundamentally important about Kant's classification of the basic mathematical propositions as synthetic. Beck explains that an analytic proposition lays out various properties that are already found in a concept. But this will never get the concept into relation with an object—that the concept can actually be applied to the world can be secured only by intuition (Beck 1965, 87). To give full meaning to a concept we need to add a "*condition of sensibility,*" a condition of "actual use in specific circumstances according to a rule" (Beck1965, 87). And this is a synthetic addendum—"Make the added condition a conceptual amendment to the definition, and the entire question [of the genuine applicability of the concept to the world] is postponed" (Beck 1965, 87–88). In particular, "to define a mathematical concept is to prescribe rules for its construction in space and time. Such a definition is a synthetical proposition, because the spatial determination of the figure is not a logical consequence of the concept but a real condition of its application . . . . Mathematical knowledge . . . has objective reference, and this is obtained . . . through intuition and construction" (Beck 1965, 90–91). It seems this leaves open the possibility that there could be definitions with different conditions of application, ones more suited to a non-Euclidean conception of space and time, without changing the core picture of mathematics that Beck attributes to Kant. Thus we see Beck subscribes to the anti-Russellian view. The key claims of Beck's position are
    1. Mathematical propositions are synthetic because the axioms of mathematics are synthetic.
    2. Mathematical inference itself proceeds deductively, in accordance with logic (there is no peculiar form of mathematical reasoning).
    3. Pure intuition supplies something like a model for the deductive system thus constituted—it is intuition that ties mathematics down to a particular interpretation and thereby ensures that mathematics is applicable to the world.
19. For a very clear statement of Hintikka's neo-Russellianism, see Hintikka (1982).
20. A particular triangle, drawn by a mathematician in the course of a proof, and a variable, of the kind used in algebra, might seem to represent individuals differently: the drawing of the triangle might seem to definitely represent a particular mathematical object in a way that '*p*' (used, say, as a variable representing an odd prime) doesn't. For Hintikka, the point is that both are treated as representing an individual.
21. Hintikka reminds us of the Quinean idea that "the only acceptable values of variables are *individuals*" (Hintikka 1992a, 27).
22. At this point, I won't take a stand on whether this terminology is infelicitous. My point so far has been to elucidate Hintikka's terminology.
23. Hintikka's interpretation of Kantian intuition is only one position in this literature. I've chosen to discuss Hintikka and (in the next section) Thompson because their dispute brings to light some

of the central issues concerning the interpretation of 'intuition' facing analytic commentators on Kant's philosophy of mathematics, but this choice was somewhat arbitrary. My goal is ultimately to give some indication of how a textual dispute over the definition of Kantian intuition has a significant role to play in thinking about broader themes not just in Kant's philosophy of mathematics, but in his transcendental project more generally. It might be helpful to indicate briefly some of the other positions that have been adopted on intuition in Kant. A famous disagreement between Hintikka and Parsons concerns how Kant understands the immediacy criterion and the singularity criterion, and whether or not either implies the other. Hintikka, as we shall see, believes that *singularity* constitutes the sole official property of an intuition and argues for an understanding of the singularity criterion and the immediacy criterion such that the immediacy criterion is a "corollary" (Hintikka 1972, 342) of the singularity criterion. Hintikka seems to argue that any singular representation meets the singularity criterion. Since (according to Hintikka) such singular representations do not represent their objects by means of "features that several objects may have in common" (A320/B376–77), any singular representation also meet the immediacy criterion. But, as Parsons and Thompson point out, it isn't clear that this inference is legitimate. For one can easily put a concept to a 'singular use' (for example, in a definite description) to generate a singular representation which involves the use of concepts (such a representation thus meets Hintikka's version of the singularity criterion, but not his version of the immediacy criterion). As we shall see, Thompson concludes from this that an intuition in Kant can't be anything like a singular term in modern philosophy. Howell (1973) seems to agree that the singularity condition does not imply the immediacy condition, but he does hold onto the idea that intuitions are somewhat like modern singular terms. Howell compares Kantian intuitions to *demonstratives*. On Howell's understanding of demonstratives, they fit a plausible understanding of the singularity criterion, but do not relate a thinker to an object by means of any concepts and for this reason also meet a plausible reading of the immediacy criterion. Parsons, on the other hand, argues that the immediacy criterion constitutes the official definition of intuition in the *Critique*. For Parsons, immediacy consists *not only* in the fact that intuitions do not represent their objects "by way of properties that they may share with other objects" (Parsons 1992b, 143). Further, for Parsons the immediacy of an intuition is supposed to be an epistemically significant "direct [phenomenological] presence" (Parsons 1992b, 144) of a representation to the mind (since the presence is phenomenological, the intuition does not "necessarily involve the *existence* of the object intuited" [Parsons 1992b, 145]). Mathematical knowledge is apparently to be explained in terms of this epistemically significant notion of immediacy: one has a kind of immediate, intuitive knowledge of certain mathematical facts through the intuition of geometrical diagrams and through the intuition of space. Friedman (2000a) and Carson (1997) find this explanation of our knowledge of mathematics mysterious. What all these commentators agree upon is that when Kant contrasts intuitions and concepts at A320/B376–77 by saying that "[An intuition] relates immediately to the object and is single, [a concept] refers to it mediately by means of a feature [mark] which several things may have in common," this must mean that intuitions do not relate to their objects by means of "features which several things may have in common." So it is supposed by Howell (for example) that a great virtue of his account of intuitions as demonstratives is that demonstratives do not relate to their objects by means of 'marks'. In an appendix to his paper (Howell 1973) he tries to show how demonstratives relate to objects without the use of concepts, despite objections mustered by Thompson (1972) suggesting that demonstrative representation requires concepts. (Woods [1984] makes a similar point about demonstratives in his criticism of Sellars. This criticism presupposes that any successful account of Kantian intuitions must give an account of how intuitions refer to objects without the involvement of any kind of conceptual apparatus.) Houston Smit (2000) argues that we can use Kant's distinction between 'intuitive' and 'discursive' marks in such a way that the same "partial representation" (for example, "the content *rectangle*") can be deployed both in an intuitive representation (as an intuitive mark) and in a conceptual representation (as a discursive mark) (Smit 2000, 256). This, in effect, is one way of arguing against the presupposition that our conceptual apparatus must not be involved in the constitution of an intuition. We shall see later that Sellars and McDowell also reject this presupposition.

24. Of course (as Hintikka [1967, 37] is well aware) the problem only emerges on the assumption that mathematics is a priori applicable to reality.
25. Hintikka himself goes on to argue that the Transcendental Aesthetic should have consisted in an argument that the form of reasoning known as existential instantiation can only be explained if

we think that the main way we can come to know objects is through 'game-theoretic semantics', which involves seeking and finding an object which has certain concepts. See, e.g., Hintikka (1992b, 350–51).

26. Thompson writes, "The subject term in 'Caius is mortal' [does] not represent an intuition, but rather a concept used to form the subject of a singular judgment" (Thompson 1972, 318). To understand intuition, we need to realize that:

> [E]ach intuition is given on an occasion temporally distinct from that of every other and is thus, simply as an intuition without regard for concepts, different from every other intuition, although as falling under a certain concept it is, along with any other intuition that falls under that concept, that concept's intuition. (Thompson 1972, 327–28)

Hintikka argued that names—and other singular representations—are linguistic representations of intuitions. But since for Thompson's Kant each intuition is "given on an occasion temporally distinct from that of every other," any linguistic representation of an intuition would have to be a representation which does not admit of reapplication. Since names can be applied and reapplied, names cannot be linguistic representations of intuitions. So singular judgments do not involve intuitions. Rather, singular judgments just involve a *concept put to singular use*. In order to put a concept to 'singular use', that concept needs to fulfill two conditions, Thompson argues—an existence condition and a uniqueness condition (Thompson 1972, 319). Because any conceptual representation might have more than one object falling under it, the uniqueness condition is fulfilled merely 'conventionally' when "we agree to ignore the possibility of further differences" (Thompson 1972, 330). Thompson cannot argue that the uniqueness condition on a concept which we are trying to employ as the subject term of a singular judgment is identical with the singularity condition that holds of an intuition. Singularity for an intuition is "known intuitively and not conceptually" (Thompson 1972, 331), it consists in an object's "being intuitively cognized as a spatiotemporal something" (Thompson 1972, 331). The role of an intuition is to *fulfill* the existence condition. An intuition provides something to fall under the concept employed as the subject term of a singular judgment.

27. So the singularity and the immediacy criterion turn out to be equivalent, but Thompson's position disagrees with Hintikka's "conclusion in taking it as essential to Kant's position that all intuition is sensuous and in denying that a singular term constitutes a linguistic representation of an intuition" (Thompson 1972, 333).

28. Thompson writes:

> If we ask what does constitute a linguistic representation of an intuition, the answer, I think, is simply that for Kant an intuitive representation has no place in language, where all representation is discursive. In language we presuppose intuitions and create discursive representations. When I judge that an object before me is such and such, I presuppose an intuitive representation (cognition) that I subsume under certain empirical concepts. (Thompson 1972, 333)

29. So the properties of the *numeral* '12' (that it is the fifth numeral after '7', etc.) correspond to arithmetical properties of the number 12 (that 7 + 5 = 12, for example). Thus:

> A numeral is . . . a symbolic construction of a number, and in arithmetic by further symbolic constructions from numerals . . . we discover further arithmetical properties of numbers . . . . The further symbolic constructions in arithmetic require function signs like 'sum of' and 'product of'. These signs . . . represent . . . a certain operation to be performed. (Thompson 1972, 337)

30. Space and time each represent exactly one object immediately, and thus are the closest thing in Kant's philosophy to genuine singular terms (Thompson 1972, 335). Time, on the one hand, can only be represented by an analogy—a line. That is, time can only be represented by means of space; we cannot appeal to any other faculty of representation. Space, on the other hand, can be intuited directly. Thus, when we are concerned with geometry (the science of space) we can produce the relevant constructions ostensively, whereas in subjects such as arithmetic and algebra,

which somehow are also bound up with time, we can only use symbolic construction (Thompson 1972, 336). Note that Thompson thinks that this connection between symbolic construction and time shows that mathematics cannot proceed independently of a connection with sensibility (Thompson 1972, 337).

31. Another possibility is that constructions in pure intuition should be thought of as constructions which *only* have mathematically relevant properties. Ultimately, I think this is the right way to think about constructions in pure intuition. But this idea is not yet available, for it does not provide the envisaged explanation of how pure intuition makes mathematical reasoning possible. We will have to change our conception of the kind of explanation required in order to embrace this option.

    I've already briefly indicated how Kitcher's objection can be deployed against Thompson. Thompson's picture does seem, at least initially, to rely on some version of a visual relationship between the mathematician and a construction in pure intuition. Recall that for Thompson, geometrical constructions are given 'ostensively', arithmetical constructions 'symbolically'. This seems to suggest that we visually examine the constructions (we can directly see the geometrical construction, whereas we have to "see through" the symbols of the algebraic construction—although those symbols indicate the algebraic construction in question). This apparently visual cashing of the idea of pure *intuition* seems to square with the picture that Kitcher describes of the eye of the mind scanning particular constructions and endeavoring to determine which properties follow from the faculty of pure intuition alone. The onus at this point is surely on Thompson to explain why Kitcher's objection does not apply to his reading.

    Kitcher's problem can however be made more subtle as a charge against Thompson. In particular, it does not have to rely on the idea that the mathematician visually inspect the constructions of pure intuition. Part of Thompson's conception of Kant's epistemological story is that the role of pure intuition is to impose the form of spatiotemporality onto amorphous sensory manifolds. That is, pure intuition actually performs constructions on amorphous sensory manifolds. Kitcher's question is, in effect, a challenge: the mathematician, according to Thompson, needs to determine which properties of the deliverances of the faculty of sensibility are present in virtue of the nature of pure intuition, and which are part of the amorphous sensory manifold alone. How is the mathematician to make this distinction? That is, for Thompson, pure intuition is all the time working at a subconceptual level. The task of the mathematician is to divine the properties of this faculty of intuition. Kitcher's problem, at least in the more subtle reading I am now canvassing, is to ask how Thompson imagines inspecting particular deliverances of the faculty of pure intuition can help us determine which properties are had purely in virtue of the operations of that faculty.

32. Compare Russell's understanding of logicism: logical reasoning is apparently prior to mathematical reasoning, and yet it turns out that all techniques of mathematical reasoning are just certain deployments of logical reasoning.

33. Thompson says, for example: "What is given a priori through pure intuition is either a form of intuition or the construction under such a form of a mathematical concept" (Thompson 1972, 339).

34. Thompson says: "We are to *see* (intuit)" the construction (Thompson 1972, 340). This is plausibly to be interpreted as suggesting that the mind's eye must determine the constructions of pure intuition.

35. An *external transcendental explanation*, as I use the terminology in this paper, thus tries to explain what makes mathematical reasoning possible by grounding that reasoning in something non-mathematical, something external to the mathematical. I will later contrast this approach with an *internal* transcendental explanation—an approach which seeks to transcendentally vindicate our mathematical apparatus without moving outside the mathematical.

36. There are other manifestations of this brand of neo-Russellianism; for a possible example see Shabal (2003) but also compare Shabal (2004). For those unfamiliar with Friedman's work on Kant, perhaps a word is in order at the outset as to why it is legitimate to call Friedman a neo-Russellian. One of the central virtues of Friedman's reconstruction of Kant's philosophy of mathematics is his engagement in a project of "turning Russell's rhetoric on its head." At the heart of Friedman's reading is the idea that Kant's philosophy of mathematics is a sophisticated attempt

to bypass the limited nature of logic in the late eighteenth century in order to be able to account for the patterns of reasoning found in mathematics. Friedman cashes out the logical deficiencies facing Kant by arguing that the best logical material available to Kant is merely a fragment of what we would call monadic logic. So the full power of polyadic logic available now allows us to classify as logical much reasoning that Kant was unable to classify as logical. Kant, unable to see that much mathematical reasoning can be classified as logical, has to find other means to account for these patterns of inference. Thus, he develops the various doctrines associated with the pure faculty of intuition. To give a simple example: in the wake of Frege's contributions to logic *we* can write down the polyadic sentences $\forall x \exists y Rxy$ and $\forall x \forall y \exists z Rxyz$ to ensure that a system is infinite or dense, while thinking of the sentences themselves as logical (as it were grounded in modern logic). *We* can also assume these as axioms in particular proofs, thus making compelling the (Russellian) thought that the proofs of pure geometry are entirely logical. For Friedman, the nature of pure intuition and the constructions its nature makes possible substitute for the fact that anything corresponding to a logical understanding of these sentences was unavailable to Kant. So, from Kant's point of view, the fact that space is infinitely divisible guarantees that during any geometrical construction we can be assured that there is a point between any two other points—in particular, we have a rule (construction) for bisecting a line segment, which "takes the place, as it were, of our use of intricate rules of quantification theory such as existential instantiation" (Friedman 1992, 65). This line of interpretation is extended by Friedman to generate an explanation for the infinitesimal calculus—we, Friedman reminds us, can represent the idea of *convergence to a limit* using the complex quantificational form $\forall \exists \forall$. This was not available to Kant. But the modern day form $\forall \exists \forall$ can equally well be captured by the idea of *continuous motion*, which Friedman argues is bound up with the spatiotemporal nature of pure intuition (Friedman 1992, 75). This leads Kant to adopt a definition of *continuity* based on the intuitive idea of continuous motion. Kant might have been wrong in isolating the basic elements of this form of inference (for example, in arguing that any magnitude must be subject to the forms of inference encapsulated in Euclid's axioms), but the basic idea—his realization that the logic of his day did not capture all the basic forms of argument that we commonly make use of—was remarkable, says Friedman. From this quick sketch of Friedman's view of Kant, it should be clear that Friedman is certainly Russellian. He clearly subscribes to KNL and EG: he thinks that mathematical reasoning is nonlogical and that the faculty of pure intuition somehow grounds or explains these forms of nonlogical reasoning.

37. This is a felicitous place to mark Friedman's fundamental disagreement with McDowell. Although McDowell agrees both that the understanding and sensibility "necessarily operate in cooperation" and that they are conceptually independent he does not agree that Kant's task is to find additional a priori structures that mediate between them. Kant instead deploys these terms in his elucidation (and thereby his vindication) of the interactions of our various cognitive and inferential capacities. If this is right, Friedman's explanation of *why* Kant offers his account of mathematics cannot even get started. This I take to be another manifestation of the way that Friedman's *assumption* about what a transcendental project must be for Kant is fundamental for his reading of Kant.
38. Indeed, it was a crucial insight of Friedman's to make KNL explicit in his reading of Kant. Compare note 36.
39. If one has a Fregean conception of logic, one can construe this as a case in which one logical system—that of the Aristotelian syllogistic—can be wholly represented through the resources made available by another logical system. If, however, one is a strict Kantian about pure general logic and its provenance, then one may be inclined to view monadic predicate logic (in particular due to its employment of existential quantifiers) as imparting a tacit appeal to our receptive faculty and therefore to something extralogical. One can put the difference this way: pure general logic abstracts from all relatedness to objects. Monadic predicate logic abstracts from any peculiarities that may characterize the objects with which we reason, but not from relatedness to objects. It presupposes a domain of discourse.
40. Friedman says: "In other words, it is the spatio-temporal character of construction in pure intuition that enables Kant to give a philosophical foundation for both Euclidean geometry and Newtonian dynamics" (1992, 58); "The present approach to Kant's theory of geometry follows Russell in assuming that construction in pure intuition is primarily intended to explain mathe-

matical proof or reasoning" (1992, 80); "The primary role of pure intuition is to underwrite the constructive procedures used in mathematical proofs" (1992, 92); "In other words, just as in the case of arithmetic and the pure intuition of time, the pure intuition of space is necessary to make geometrical *concepts* first possible" (1992, 123); "The rigorous representation of mathematical concepts and propositions requires schemata: constructions in pure intuition" (1992, 127).

41. Or again:

> That perceptual space in fact has or embodies this formal structure can in no way be simply read off of our perceptual experience, as it were, independently of our knowledge of geometry. On the contrary, the only way in which we know that perceptual space in fact embodies this structure is precisely through our knowledge that geometry is applicable to it. Kant's theory of pure spatial intuition provides an explanation of the possibility of geometry—an explanation, in particular, of the nonconceptual and intuitive or perceptual character of geometry. But it does not provide, and does not attempt to provide, an independent epistemological foundation. (Friedman 2000a, 193)

42. In the case of arithmetic, "The schema corresponding to the concept of a particular number *n*, . . . consists in the procedure by which any such aggregate can be enumerated" (Friedman 1992, 125).
43. See Friedman (1992, 122–25).
44. Or again, we saw that he argues that it is a necessary condition on being able to locate myself in a spatiotemporal region with other objects that it is possible for me to prolong a point into a line and rotate myself imaginatively around a point (Friedman 2000a, 190–91). He then argues that it is precisely these abilities which are also required in order to reason geometrically. But again, even if the manipulations he describes with points and lines are necessary in order for a subject to locate himself and other objects in a common space, it is only in virtue of the prior assumption of a transcendental version of EG that Friedman can assert that the one set of structural features ground the other. Without this assumption, the order of explanation might as well run in the opposite direction (or even neither direction).
45. In my presentation of Sellars, I won't distinguish as carefully as I might between the following two types of Kant exegesis: identifying terminological ambiguities which are in fact present in Kant's text, and making terminological distinctions which Sellars believes find no manifestation at all in Kant's text. In particular, I won't try to argue about whether Sellars is correct to identify specific textual moments where Kant uses 'intuition' in each of the ways Sellars identifies. Part of the difficulty here is that whether one agrees with Sellars about what Kant should have done affects whether one agrees with Sellars claims about what Kant did in fact do.
46. I borrow this phrase from McDowell's "Sensory Consciousness in Kant and Sellars."
47. Sellars writes: "On the other hand, 'immediate relation' can be construed on the model of the demonstrative 'this'" (Sellars 1967, 3).
48. Recall that for Thompson, intuitions are both entirely independent from the understanding (what I called the radical independence move) but still (somehow) represent individuals (although no linguistic representations of individuals are intuitions—this I called the narrowing move). Sellars argues that no item which represents an individual can be radically independent from the understanding and moreover Kant's dominant employment of the term 'intuition' accords with this—that is, Sellars thinks that much of what Kant says about intuitions requires us to think of intuitions as potentially conceptually articulated. So, in the terminology of §5, Sellars in effect agrees with Thompson that not all representations of individuals are intuitions, but some intuitions do indeed represent individuals, and this can only be possible if we drop Thompson's insistence on radical independence—for all representation must somehow involve concepts.
49. See also, e.g., Sellars (1967, 15).
50. Indeed, Sellars devotes considerable attention (in, e.g., Sellars [1967]) to the questions (a) how is it that IEMSRs guide IECMs, and (b) how it is possible that this kind of guidance holds between items which are wholly nonconceptual and items whose constitution depends on concepts.
51. And as I suggested in note 37, Friedman's assumption about the nature of transcendental philosophy in Kant's account of mathematics is shaped by his assumption about the nature of transcendental philosophy in Kant's broader project in the *Critique*.

52. McDowell's own views on the question have undergone some development between *Mind and World* and the present.
53. Notice that Kant's emphasis on the fact that mathematical concepts must be defined helps us to understand the contrast between analytic and synthetic as it applies to mathematics. Kant claims that analytic judgments occur through discovering which concepts are 'already contained' in some concept. In the case of mathematics, Kant thinks that whatever concepts are 'already contained' in a mathematical concept are straightforwardly worn on the face of that concept. This is because mathematical concepts are defined in terms of other mathematical concepts. For mathematical concepts, the concepts 'already contained' in the definiendum are those used in the definiens (or in the definitions of the concepts used in the definiens, and so on). To use a modern example: since a *principal ideal domain* is defined as an integral domain in which every ideal is principal, then the judgment that every principal ideal domain is an integral domain would be analytic (since *integral domain* is a concept used in the definiens of the concept *principal ideal domain*). Roughly then analytic mathematical judgments occur for Kant when we simply draw out concepts from the definiens of a mathematical concept. As it turns out, every PID is also a unique factorization domain (UFD). (For a proof, see, e.g., Cameron [1998, 52–53].) Following Frege, it is now common to attempt to characterize analyticity by saying that if we can use a string of definitions and the rules of logic to figure out some fact, this fact must be analytic (thus the statement that every PID is a UFD would be analytic). We might put this figuratively by saying that logic is now the ultimate tool for drawing out that which is already contained in a concept. Kant did not have this conception of logic (see B15), and thus would not think that the theorem that every PID is a UFD is analytic. For Kant, the type of reasoning that goes into working with a concept (such as the concept of a PID) and discovering a nondefinitional property of that concept (such as that every PID is a UFD) is synthetic. In the realm of mathematical judgment, Kant's distinction between analytic and synthetic parallels the difference between the fact that mathematical concepts (unlike empirical concepts) have to be precisely defined and the fact that mathematical reasoning proceeds by thinking about what *follows from* these definitional properties.
54. I take my understanding of this story from the popular Sobel (1995).
55. When we discover that Kant does not work with a sufficiently general notion of a 'line', it is appropriate to say that a certain kind of conceptual revision has occurred. This does not destroy Kant's distinction between empirical and mathematical concepts. Kant's distinction between empirical and mathematical concepts is that empirical concepts must always stand open to revision in the light of empirical information, and mathematical concepts are independent of revision in this way. This leaves open the possibility of revising basic mathematical concepts in the light of mathematical considerations. The revision of the mathematical concepts was not prompted by empirical information. Thus, there is no reason to think the distinction Kant draws between empirical and mathematical concepts might break down. The fact that Kant was incorrect about the primitive mathematical concepts is unfortunate, but it is not of fundamental importance. It would only be important if Kant were indeed attempting to provide an indefeasible basis for mathematics. But once we abandon EG, it becomes (as we shall see) easy to give up the idea that Kant sought a foundation for mathematics.
56. There is a very tempting way to try to use the idea that mathematical concepts (unlike empirical concepts) can be defined to explain the idea that mathematical concepts can always be constructed. The idea would be that since a definition of a mathematical concept is in terms of more basic mathematical concepts (assuming these more basic concepts are already understood) that definition in effect provides a recipe for taking the more basic mathematical concepts and combining them in such a way that an a priori construction of a representative example of the mathematical concept with which I can reason is thereby produced. But anyone with any mathematical experience will recognize that it is one thing to define a new concept and it is quite another to write down an example of that concept. An exercise in a mathematics class might require one to show that every XYZ must be ABC. In my experience, a very familiar difficulty arises in coming up with an example of something with XYZ. I'll keep sketching representations of mathematical entities that either lack Y or lack Z. Sometimes it might turn out that the reason I can't construct an example which has X, Y, and Z is precisely why I can't show that every XYZ has ABC—once I can see what I'm missing that allows X, Y, and Z to coexist, I'll be able to see why ABC will also be present. Even though I have the definition, there is no straightforward route to an example of XYZ

with which I can reason. Of course these observations don't obtain in all cases of mathematical reasoning. Oftentimes the way a definition is put together does give a straightforward route to how a useful diagram will look ("A circle is inscribed in a square"), or a rough diagram will be readily forthcoming, but what is supposed to be done with it will be far from clear. My point has simply been that a definition doesn't give a straightforward recipe for producing a successful diagram with which to reason. That often takes some mathematical skill.

57. This is an application of my suggestion that we reject of EG in our reading of Kant.
58. Although of course the redescription also ultimately furthers our understanding of the nature of mathematics.
59. Thus, at the beginning of the Transcendental Aesthetic, we find: "That in appearance which corresponds to sensation I term its *matter*; but that which so determines the manifold of appearance that it allows of being ordered in certain relations, I term the *form* of appearance" (B34/A20).
60. Notice that since mathematical practice determines whether a particular diagram has a particular form, and mathematical concepts describe this form, it is mathematical practice which grounds the application of mathematical concepts to particular empirical intuitions. This is how mathematical concepts find application to empirical intuitions.
61. Compare the idea that a modern logical notation allows one to consider only those aspects of a sentence which are relevant to inference (the logical form of the sentence), abstracting away from its content.
62. The question of how to extend Kant's account of geometrical reasoning to algebraic reasoning is extraordinarily difficult. I can't hope to address that question fully here.
63. Note that this account sidesteps the interesting question of impossibility proofs. Suppose one adopts the view that what can be geometrically constructed are just the constructions that space alone makes possible, which, in Kant's case, will be the constructions of Euclidean geometry. This will seriously constrain the class of a priori mathematical constructions; for example, one will not be able to construct a heptagon. (It is this kind of thought that I believe underlies Friedman's [1992, 127] claim that mathematical concepts are those such that *being able to think them* means they are, in fact, instantiated [of course, for Friedman, the *in fact* is a consequence of a substantial transcendental argument].) But even independently of adopting this view about the role of space in constraining mathematical construction, it might still be argued that we cannot so much as think the Euclidean construction of a pentagon until we know how to perform such a construction; and we can also maintain that in some real sense we cannot so much as think of a *(ruler-and-compass) heptagon* (see Floyd [1995] for discussion of these themes). But I don't think that Kant had such an idea in mind. First, I think Kant's language consistently accords with the idea that I can think the concept of a heptagon (figure enclosed by seven straight lines, possessing seven angles; compare A716/B744) without knowing the Euclidean construction of a heptagon. Second, and more important, if the *concept* is defined solely by the very precise characterization found in Euclidean construction, I won't find any of them around. But I don't think there is any difficulty at all in sketching a heptagon in order to reason with it. The most interesting point, however, is that *we* recognize impossibility proofs as mathematical proofs. What could Kant make of such methods of proof? How can Kant determine that there is no possible intuition with a particular form?
64. The idea that mathematical practice can anchor talk of the form of sensibility is also expressed by McDowell, although he also is hesitant about whether this can be Kant's whole story about the form of sensibility:

> talk of cardinal numbers is anchored in counting, a procedure we learn as part of learning how to deal with empirically accessible objects. Even for someone who completely rejects Kant's conception of mathematics as reflecting the pure a priori form of our sensibility, there is room here for the thought that the theory of cardinal numbers captures something about the a priori form—in some sense—of our experience of empirically accessible objects. (McDowell 2004, 269)

65. We could, I believe, count the form of a mathematical diagram—a form that it shares with an aspect of a possible perceptual experience—as being a mathematical object. If we chose to do so,

mathematical objects would only be objects in a derivative or courtesy sense. For Kant, the primary application of the term 'object' (Gegenstand) is as an entity which can be located in space and time—an entity which is immediately, singularly represented in empirical intuition. If we decide to admit as objects items which could not be the object of a possible empirical intuition, we are invoking a secondary, grammatically derivative sense of objecthood. If we did choose to call pure intuitions mathematical objects, this notion of mathematical object would have no explanatory role to play in our account of mathematical knowledge. Rather, as I have argued, mathematical judgments can be the result of a piece of mathematical reasoning in which mathematical concepts are deployed.

66. McDowell, in his own response to MacFarlane, also suggests that mathematical practice might have a central role to play in any validation of our mathematical concepts. McDowell points out that his project with respect to empirical concepts is motivated not merely by a concern about our responsiveness to how things are with empirical objects, but more specifically by the question of how to "integrate responsiveness to reasons with responsiveness to subject matter" (McDowell 2004, 267). That is, "the empirical world makes an impact on us in operations of our sensory capacities, and it can be difficult to see how that can be anything more than a brutely causal transaction, something that could have nothing to do with reason" (McDowell 2004, 267). And *this* particular problem doesn't seem to emerge for mathematics, for as long as one believes in mathematical reasoning, "one thereby believes that mathematical reasoning can, of itself, suffice to establish mathematical truth—to reveal how things stand with mathematical objects" (McDowell 2004, 267). In the case of empirical objects, there is a conception of responsiveness to objects which threatens to come apart from 'capacities of reason'. In mathematics, there is no conception of what responsiveness to objects amounts to which threatens to come apart from our conception of mathematical 'capacities of reason'. Our whole understanding of the idea of mathematical objects is parasitic on our understanding of mathematical reasoning (an idea I canvassed in note 65.) McDowell in effect defends SKT_+: a version of SKT which entails MO, but where the constraint of MO can be met by mathematical objects which are, in a certain sense, explanatorily idle.

REFERENCES

Barker, Stephen. 1992. "Kant's View of Geometry: A Partial Defense." In C. J. Posy (ed.), *Kant's Philosophy of Mathematics.* Dordrecht: Kluwer.

Beck, Lewis White. 1965. "Can Kant's Synthetic Judgements Be Made Analytic?" In *Studies in the Philosophy of Kant*. Indianapolis: Bobbs-Merrill. Originally published in *Kant-Studien* 48 (1955): 168–81.

Boolos, George. 1985. "Reading the Begriffsschrift." In Boolos (1998). First published in *Mind* 94 (1985): 331–44.

Boolos, George. 1998. *Logic, Logic and Logic*. Cambridge, MA: Harvard University Press.

Cameron, Peter J. 1998. *Introduction to Algebra*. Oxford: Oxford University Press.

Carson, Emily. 1997. "Kant on Intuition in Geometry." *Canadian Journal of Philosophy* 27:489–512.

Floyd, Juliet. 1995. "On Saying What You Really Want to Say: Wittgenstein, Gödel, and the Trisection of the Angle." In J. Hintikka (ed.), *Essays on the Development of the Foundations of Mathematics.* Kluwer Academic Publishers.

Friedman, Michael. 1992. *Kant and the Exact Sciences*. Harvard, MA: Harvard University Press.

Friedman, Michael. 1996. "Exorcising the Philosophical Tradition: Comments on John McDowell's Mind and World." *Philosophical Review* 105:427–67.

Friedman, Michael. 2000a. "Geometry, Construction, and Intuition in Kant and His Successors." In G. Sher and R. Tieszen (eds.), *Between Logic and Intuition: Essays in Honor of Charles Parsons*. Cambridge: Cambridge University Press.

Friedman, Michael. 2000b. *A Parting of the Ways*. Peru, IL: Open Court.

Hintikka, Jaakko. 1969. "On Kant's Notion of Intuition (*Anschauung*)." In T. Penelhum and J. J. MacIntosh (eds.), *The First Critique: Reflections on Kant's* Critique of Pure Reason. Belmont, CA: Wadsworth.

Hintikka, Jaakko. 1972. "Kantian Intuitions." *Inquiry* 15:341–45.
Hintikka, Jaakko. 1982. "Kant's Theory of Mathematics Revisited." In J. N. Mohanty and R. W. Shahan (eds.), *Essays on Kant's* Critique of Pure Reason. Norman: University of Oklahoma Press.
Hintikka, Jaakko. 1992a. "Kant on the Mathematical Method." In C. J. Posy (ed.), *Kant's Philosophy of Mathematics*. Dordrecht: Kluwer Academic Publishers. First published in *The Monist* 51 (1967): 352–75.
Hintikka, Jaakko. 1992b. "Kant's Transcendental Method and His Theory of Mathematics." In C. J. Posy (ed.), *Kant's Philosophy of Mathematics*. Dordrecht: Kluwer. First published in *Topoi* 3 (1984).
Howell, Robert. 1973. "Intuition, Synthesis and Individuation in the Critique of Pure Reason." *Noûs* 7:207–32.
Hylton, Peter. 1990. *Russell, Idealism and the Emergence of Analytic Philosophy*. Oxford: Oxford University Press.
Kant, Immanuel. 1929. *Critique of Pure Reason*. Translated by Norman Kemp Smith. Basingstoke: Palgrave.
Kant, Immanuel. 1974. *Logic*. Translated by Robert S. Hartman and Wolfgang Schwarz. New York: Dover.
Kitcher, Philip. 1975. "Kant and the Foundations of Mathematics." *Philosophical Review* 84:23–50.
MacFarlane, John. 2002. "Frege, Kant and the Logic in Logicism." *Philosophical Review* 111:25–65.
MacFarlane, John. 2004. "McDowell's Kantianism." *Theoria* 70:250–65.
McDowell, John. 1998. "Having the World in View: Sellars, Kant and Intentionality." *Journal of Philosophy* 95:431–91.
McDowell, John. 2004. "Reply to John MacFarlane." *Theoria* 70:266–70.
Parsons, Charles. 1969. "Kant's Philosophy of Arithmetic." In S. Morgenbesser, P. Suppes, and M. White (eds.), *Philosophy, Science and Metaphysics: Essays in Honor of Ernest Nagel.* New York: St. Martin's Press.
Parsons, Charles. 1992a. "Arithmetic and the Categories." In C. J. Posy (ed.), *Kant's Philosophy of Mathematics*. Dordrecht: Kluwer. Originally published in *Topoi* 3 (1984).
Parsons, Charles. 1992b. "Postscript to 'Kant's Philosophy of Arithmetic.'" In C. J. Posy (ed.), *Kant's Philosophy of Mathematics.* Dordrecht: Kluwer.
Russell, Bertrand. 1903. *Principles of Mathematics*. New York: Norton.
Sellars, Wilfred. 1967. *Science and Metaphysics*. London: Routledge.
Sellars, Wilfred. 1997. *Empiricism and the Philosophy of Mind*. Cambridge, MA: Harvard University Press.
Shabal, Lisa. 2003. "Reflections of Kant's Concept (and Intuition) of Space." *Studies in History and Philosophy of Science* 34:45–57.
Shabel, Lisa. 2004. "Kant's 'Argument from Geometry'." *Journal of the History of Philosophy* 42: 195–215.
Smit, Houston. 2000. "Kant on Marks and the Immediacy of Intuition." *Philosophical Review* 109:235–66.
Sobel, Dava. 1995. *Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time*. London: Penguin.
Thompson, Manley. 1972. "Singular Terms and Intuitions in Kant's Epistemology." *Review of Metaphysics* 26:314–43.
Woods, Michael. 1984. "Sellars on Kantian Intuitions." *Philosophy and Phenomenological Research* 44:413–18.
Young, J. Michael. 1992. "Construction, Schematism and the Imagination." In C. J. Posy (ed.), *Kant's Philosophy of Mathematics*. Dordrecht: Kluwer. First published in *Topoi* 3 (1984).

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Self-Consciousness and Consciousness of One's Own Body: Variations on a Kantian Theme

Béatrice Longuenesse
New York University

I. THE PROBLEM

Kant is the first to have introduced a radical distinction between two kinds, or two aspects, of self-consciousness. On the one hand, we are self-conscious *subjects;* on the other hand, we are conscious of ourselves *as objects,* where both *subject* and *object* are to be understood as subjects and objects *of thought and experience.* For Kant, as a *subject* of thought and experience, I am conscious of myself as the subject, or perhaps better the agent, of a pure spontaneity or self-determining activity, ordering given representations so that any object of representation at all, including myself, can be perceived, recognized, thought about. As an *object* of thought and experience I am, like any other object, represented to myself by way of that very activity of ordering representations which makes possible the representation of any and all objects of representation. Therefore, Kant argues, *as* the active thinking *subject,* I cannot be an *object* for myself. For any representation of an object presupposes that activity, whose subject thus cannot itself be represented as an object.[1]

Kant's view has met in recent years with a flurry of challenges. Among the issues most commonly raised are the following: (1) Is Kant correct in distinguishing our consciousness of ourselves *as subjects,* and our consciousness of ourselves *as objects?* (2) Supposing he is correct, is he correct in the way he characterizes this distinction? Kant's *subject* is characterized in purely mentalistic terms. It is a thinking

subject, the subject I—or we might say, the referent of "I"—in the proposition "I think." Similarly, it seems that as *objects* for ourselves, we are, for Kant, primarily *mental* objects: what we call ourselves as an object is the unified sequence of mental states (representational and nonrepresentational) we ascribe to ourselves or recognize as our own. Nevertheless, it is clear that Kant also asserts the existence of human bodies affected by other bodies and as such, the mediators between external objects and our representations of them. Is our body then, also an essential component of what we call ourselves *as an object?* If so, why isn't the human body acknowledged by Kant as being not only a component of what I am conscious of when I am conscious of myself as an object, but also a component of what I am conscious of when I am conscious of myself *as the subject* of thought and experience—*as a person?*

Challenges to the rigidity of Kant's distinction between consciousness of oneself *as subject* and consciousness of oneself *as an object,* and challenges to Kant's seemingly disembodied notion of *subject* of thought and experience, have come both from the continental tradition (especially Heidegger and Merleau-Ponty) and, more recently, from contemporary "neo-Kantians" in the analytic tradition, e.g., Strawson, Evans, McDowell, and Cassam.[2] In this paper I shall devote particular attention to Cassam's discussion of the issue, in his 1997 book, *Self and World.* The reason for focusing my analysis in this way is that Cassam's discussion seems to me to be particularly helpful in bringing to the fore the core issues in Kant's view. In brief: Cassam does not challenge Kant's distinction between consciousness of oneself *as a subject* and consciousness of oneself *as an object.*[3] On the contrary, like the other critics of Kant's view I mentioned above, he thinks this distinction has an important role to play in clarifying our cognitive and practical relation to the world and to ourselves. What he challenges is the way Kant characterizes this distinction. In particular, he challenges what he takes to be Kant's rigid dichotomy between the two kinds of self-consciousness. For Kant, consciousness of oneself *as the subject* of thought is not and cannot be consciousness of oneself *as an object,* or at least not an object *individuated as an existing thing.* According to Kant, it is precisely because they ignored the difference between those two kinds of consciousness that Descartes and his followers were misled into thinking that in being conscious of myself as the subject "I" of the proposition "I think," what I am conscious of is an immaterial thing, a thinking substance. Now, according to Cassam, Kant was right to denounce this error: in being aware of ourselves *qua subjects,* we are certainly not aware of ourselves as immaterial substances. Nevertheless, there is another object that I am aware of, indeed must be aware of as being myself when I am aware of myself as the subject of perception, thought, and knowledge. This object is not an immaterial substance, as is Descartes's soul. It is a material substance, a body. Indeed, Cassam maintains, "awareness of oneself, *qua* subject, as a physical object is actually a *necessary* condition of self-consciousness."[4] In other words, we could not be self-conscious—by which Cassam means: we could not ascribe our perceptions and experiences to ourselves, take them to be our own—unless the very same

state of awareness that is awareness of ourselves *qua subjects of thought and knowledge,* were also an awareness of *ourselves as a physical object among other physical objects.* Or again, as Cassam says in the concluding paragraph of his book: "Self-consciousness [. . .] is intimately bound up with awareness of the subject 'as an object'—not as an 'immaterial' substance but as a physical object in a world of physical objects."[5]

This last formulation is in some ways more modest than the previous one. It does not make "awareness of the subject 'as an object'" a *necessary condition* of self-consciousness (of being able to ascribe our representations to ourselves, of recognizing them as our own). It only says that the latter is "intimately bound up" with the former. It is just *de facto* true, one might say, that in being self-conscious (in ascribing our representations to ourselves) we are aware of ourselves, qua subjects of thought and knowledge, as physical objects.

Now, for a while I thought that this last, more modest formulation was one Kant could fully endorse: as I said earlier, for Kant too it is an empirical fact that our own bodies are the mediators between external objects and our representations of them. Similarly, our awareness of our own, sentient bodies as physical objects among physical objects is necessary to our locating external objects with respect to one another in one space. However, upon closer inspection, the fact that Kant recognizes these points does not really bring his view very close to even the more modest formulation of Cassam's view. For the most striking element in Cassam's statement, in both its versions, is *the identification* of awareness of oneself *qua subject* and awareness of oneself *as a physical object.* However sympathetic Kant might be to the view that self-consciousness is "intimately bound up" with consciousness of our own body, this still would not amount to the statement that this consciousness is a consciousness of ourselves *qua subjects* as a physical object.

The purpose of the present paper is to try to clarify what, in Kant's view, resists the more radical position Cassam thinks Kant should have held. Of course, a sophisticated Kantian might come up with an immediate response: the core of the resistance comes from Kant's transcendental idealism. According to transcendental idealism, the world of objects is a world of mere appearances. But I, as a subject of thought and knowledge, cannot be an appearance, since I am, as a thinking being, just the source of this unifying activity that makes possible the world of appearances, among which the appearance of myself as an object. Moreover, as an object, I am, like all appearances, in time. And as a physical object (a body), I am also in space. But as the subject of thought and knowledge, I am neither in time nor in space. Rather, I generate time and space as mere representations, forms of intuition within which appearances (which are themselves mere representations) are located and related to one another. So there is, in the general metaphysical background of Kant's view, a strong reason why Kant would refuse to identify myself "as a subject" (the referent of "I" in "I think") and myself as an object, let alone a physical object. As a subject I don't know *what* I am, but I am certainly not an appearance. As an object of representation, I am an appearance in space and time.

This would be an accurate account of an important aspect of Kant's position. However, in this paper I will leave this aspect aside. This is because I think that even without its transcendental idealist backbone, there are strong reasons for Kant's view to resist Cassam's suggestion that in being aware of myself as what is referred to by the subject "I" of the proposition "I think," I am aware of myself as an object, indeed as a physical object, a body. I think the resistance of Kant's view to making such a move is not due only to transcendental idealism as a metaphysical view. There is something also about Kant's conception of "I" in "I think" that simply does not fit with Cassam's idea that in being aware of myself qua subject, I am aware of myself as a physical object. In fact, Cassam does recognize the resistance. But he attributes it to a weakness in Kant's view. This is what I want to question. I shall argue that what Cassam's challenge really brings to light is the fact that Kant's view of "I" in "I think" does not fit cozily into contemporary analyses of self-reference. The next question is of course: why? This is what I shall also try to clarify in this paper.

II. THE CONTEXT: CASSAM'S "OBJECTIVITY ARGUMENT," KANT'S TRANSCENDENTAL DEDUCTION OF THE CATEGORIES

Cassam's book offers a complex web of arguments for his thesis that in being aware of myself qua subject of thought and knowledge I am aware of myself as a physical object among physical objects. I want to focus on only one of those arguments, which he calls the "objectivity argument" (discussed in chapter 2 of *Self and World*). One reason for focusing on this particular argument is its intrinsic interest. But another reason is that, of all the arguments Cassam deploys in his book, this one is the closest in its structure to Kant's Transcendental Deduction of the Categories, which is where Kant first introduces his notion of the "transcendental unity of apperception" and the related role of the proposition "I think."[6] Now, there is a great deal of controversy around the issue of how the structure of Kant's own argument should be understood. I will not go into any of the debates on this issue. I will dogmatically assert that one strong candidate for the most general structure of the argument is the following: (1) Kant starts from the accepted premise that we think of our experience as experience of independently existing objects. That is to say, we think of our experience as including perceptions of objects that continue to exist even when they are not perceived.[7] (2) Kant then argues that for such experience to be possible, our representations must all be combined in some way, or linked to each other by ourselves, by our own activity of perceiving and thinking—conceptualizing—what we perceive, and we must be conscious of the unity of the representations thus combined. But this is possible only if we ascribe the representations thus combined to ourselves as the subject that perceives and thinks (the subject that forms concepts under which the objects of those representations are recognized).

Only if our representations are so combined and unified can they be representations of objects *as* independently existing objects, objects that we can not only identify, but also reidentify after we have ceased to perceive them for a while. (3) Kant then goes on to argue that this act of unifying our representations is structured by categories such as those of cause, substance, interaction, quantity, intensity, and so on. (4) This is Kant's "deduction" of the categories; namely, his justification of the claim that categories are universally applicable to objects of experience. They are so applicable because there would be no recognition of objects as persisting, independently existing objects, unless our representations had been ordered and unified according to those categories.

So, the general structure of Kant's transcendental deduction could be summarized as follows:

(1K) We think of our experience as including perceptions of independently existing objects. (premise, see Introduction to KrV, §§13 to 15 in the B Deduction, and *passim*)

(2K) One thinks of one's experience as including perceptions of independently existing objects (a) only if one is conscious of the unity and identity of one's own act of combining and comparing perceptions; and this in turn is possible (b) only if one is conscious of the numerical identity of oneself as the subject represented by "I" in "I think." (premise, argued for §16 to 18 in the B Deduction)

(3K) The unitary act of combination, ascribed to "I" in "I think," is structured according to the categories. (premise, argued for in §§19 to 26 of the B Deduction)[8]

(4K) So, all objects of experience thought to be independently existing objects are represented by way of a combination of perceptions structured according to the categories; that is to say, they fall under the categories (conclusion, from (1K), (2K) and (3K)).

Now, Cassam's "objectivity argument" has the following structure.

(1C) We think of our experience as including perceptions of independently existing objects. (premise)

(2C) One can think of one's experience as including perceptions of independently existing objects only if one is aware of the identity of oneself as the subject to which the perceptions are ascribed. (premise, argument to be laid out below)

(3C) For the awareness of the numerical identity of the subject to do its work, one must be aware of the subject as a physical object.

(4C) So, we are aware of ourselves, qua subjects, as physical objects in a world of physical objects (conclusion, from (1C), (2C), and (3C))

As we can see, (1C) and (2C) in Cassam's objectivity argument are close to (1K) and (2K) in the structure I have outlined for Kant's transcendental deduction

of the categories. Or more precisely, (1K) and (1C) are the same. (2K) and (2C) both make it a condition for thinking of one's experience as including perceptions of independently existing objects, that one ascribe these perceptions to oneself as a numerically identical subject of those perceptions. However, for Kant the thought of this numerically identical subject has no other role than that of a component (perhaps a grounding component) in the thought of the unity of its *activity:* the activity of combining and comparing one's representations. For Cassam, what is described as numerically identical is a subject in the traditional sense of the term: a bearer of properties, in this case, a bearer of perceptual states. This is how from (2K), Kant then moves to (3K): his justification of the categories. Whereas from (2C), Cassam moves to (3C): his claim that one must be aware of the numerically identical self to which one ascribes one's perceptions *as a physical object.*

My question will be: why and how does Kant's view seem to resist such a move, and what does this resistance tell us about Kant's view of the nature of self-consciousness?

Note that my question is *not* whether Cassam provides an accurate account of Kant's view or not. He is quite clear himself that neither his method nor his results are strictly speaking Kant's, although the problems he grapples with are Kantian in inspiration (the relationship between consciousness of oneself qua subject and consciousness of oneself as an object; and the relationship between consciousness of objects in general and any kind of self-consciousness). Rather, the issue I am concerned with is, once again, the following: what does the difference between Cassam's approach and Kant's approach tell us about what is peculiar to Kant's view of self-consciousness?

Cassam gives two versions of his "objectivity argument." Both share the general structure I sketched above. But they differ in what is meant by "being aware of the subject of perception and experience as a physical object." According to what Cassam calls the "concept version" of the objectivity argument, (3C) should be understood as: "one must *conceive of* the subject as a physical object." He means something quite strong by this. "Conceiving of X as Y" means, *believing* that X is Y. The argument is that necessarily, if one *believes* one's experience to be of independently existing objects, then one believes that the "I" to which perceptions are ascribed is, itself, a physical object among physical objects.

According to what Cassam calls the intuition version of the objectivity argument, (3c) should be read as: "one must be *intuitively aware of* the subject as a physical object" (see *Self and World,* 30–31, 36, 52). "Intuition" should be understood, in a sense broadly inspired from Kant, as immediate awareness of a thing as it presents itself. Intuitive awareness is not necessarily accompanied with belief: one may be presented to oneself, qua subject, as a physical object, while *believing* that one's true nature as the subject of thought and knowledge is to be a thinking substance. The claim made by the "intuition version" of the objectivity argument is thus less strong than the claim made by the concept version.[9]

I intend to show how each version of Cassam's argument bears interesting connections to Kant's view of self-consciousness, while also differing in fundamental

ways from Kant's view. In each case, comparing the two views helps bring to light some important features of Kant's own view. Or so I shall argue.

So, to sum up: my initial question was, is Kant right in distinguishing as he does between consciousness of oneself *as a subject,* and *as an object?* If he is, is he also right in apparently excluding *bodily* awareness from consciousness of oneself *as a subject* (or, in Cassam's words, *qua subject*)? On both points Cassam opposes Kant. On both points I will argue that Cassam's analysis helps us renew our understanding of Kant's view. To show this, I shall consider in turn each version of Cassam's "objectivity argument." I will first consider what Cassam calls the "concept version" of his objectivity argument. As we shall see, that version takes us nowhere near the conclusion that consciousness of oneself as the subject of knowledge is a consciousness of oneself *as* embodied. I will then discuss the relation between this first version of the argument and the second version, the so-called "intuition" version, where the idea of an embodied subject becomes more plausible—within limits, however, which leave room for a pretty good case in favor of Kant's own view—or so I shall argue.

III. CASSAM'S VIEW OF SELF-CONSCIOUSNESS IN THE "CONCEPT VERSION OF THE OBJECTIVITY ARGUMENT" AND KANT'S TRANSCENDENTAL UNITY OF SELF- CONSCIOUSNESS

In the "concept version" of his objectivity argument, Cassam makes use of a notion he borrows from Gareth Evans and Sydney Shoemaker: the notion of "enabling conditions" of perceptual representation.[10] The idea is this: to regard one's perceptions as perceptions of an independently existing object is to regard them as perceptions of an object *that can exist unperceived.* Now, to get a grip on the idea of what can exist unperceived, one must have the notion of spatiotemporal "enabling conditions" of perception. Included in these enabling conditions is the fact of being appropriately located with respect to the perceivable object. If one is not appropriately located, then the object cannot be perceived. Taking into account these "enabling conditions" allows us, then, to think of the object as continuing to exist even when not perceived: its not being perceived can be attributed to the fact that one is not appropriately located with respect to it, rather than to its no longer existing. Thinking of enabling conditions also allows us to distinguish between successively perceiving one and the same object, and successively perceiving two qualitatively indistinguishable, but numerically distinct objects. For example, suppose there is an exact replica of the Statue of Liberty in the estuary of the river Seine in France. I know whether what I am perceiving now is New York's Statue of Liberty which I perceived a few days ago during my walk through Battery Park, or the Statue of Liberty on the estuary of the river Seine in France, by relying on the background perceptual information I have about my route through the world between my having perception P1 of the Statue of Liberty a few days ago and my perception P2 of

the Statue of Liberty now.[11] But this in turn is possible only if I ascribe my perceptions to a numerically identical subject of the relevant perceptual states, whose route through the world is what allows me to determine which particular (independently existing) objects my perceptions are perceptions of. In the example just considered, I could interpret my successive perceptions of the Statue of Liberty either as perceptions of one and the same statue, or of two qualitatively identical statues with different locations in space. Which interpretation I settle on depends on my awareness of the perceptions as *my own,* namely as ascribed to one and the same subject of perception traveling through space: myself.[12] This is (2C) in the objectivity argument schematized above.

(3C) then states that thinking of oneself as the numerically identical subject of perception has to be thinking of oneself *as a physical object.* Why would this be so? One might, after all, think of oneself as the bearer of a mere geometrical point of reference successively occupying different positions in space and interpreting its perceptions as perceptions of independently existing objects thanks to the enabling conditions provided by its own successive positions in space. Why would this not be sufficient? Cassam examines and rejects two possible answers. The first is that thinking of oneself, qua the numerically identical subject of experience, as a physical object, is necessary for distinguishing between veridical and illusory perceptions, which is of course itself necessary for thinking of one's experience as experience of independently existing objects. The idea here is that a mere geometrical standpoint would not provide the resources for such a distinction. For a subject reduced to such a standpoint, there would be no distinction between where one is presented as being and where one actually is, or between what one seems to perceive and what one actually perceives. There would be no independent fact of the matter, the latter would be defined in each case by nothing beyond the standpoint of the perceiver. This idea, however, is incorrect (as Cassam recognizes). Even a subject of experience reduced to a mere geometrical standpoint does have the resources for distinguishing between perception and illusion. Even for a subject reduced to a mere geometrical standpoint, a particular self-location or identification of objects can be dismissed as illusory on grounds of its being incoherent with the overall patterns of the subject's experience.[13]

Another possible ground for asserting that the subject of experience must be conceived of as a physical object might be that the idea of existence unperceived is not sufficient to determine an object as independently existing. One must also think of this object as existing independently of one's perception of it, whether it is perceived or not. And our notion of such an object is that of a thing possessing those properties defined by Locke as primary qualities: shape, location, and solidity. Now, the argument goes on, only a subject that has a sense of *herself* as shaped, located, and solid can make sense of the notion that *objects of experience* are shaped, located, and solid.[14] But really, this argument does not hold up any better than the previous one. For what it shows is at best that one must experience oneself, qua subject, as shaped, located, and solid, in order to make sense of the idea that inde-

pendently existing objects are shaped, located, and solid. But this experience may be an illusion. What may be true is that as a mere geometrical standpoint, the subject of experience is correlated with a body, and this correlation is what generates the illusory experience that it, as the subject of experience (the subject "I" of the proposition "I think" or "I perceive"), is *itself* shaped, located, and solid: a body.

Now, in the second version of the objectivity argument, the so-called intuition version, Cassam will show that there are in fact strong arguments in favor of the view that being intuitively aware of oneself *qua* subject of experience just is being intuitively aware of oneself as a physical object among physical objects. The very idea that there might be a mere correlation, or even intimate connection, between oneself qua subject of one's perceptions and one's own body, loses much of its plausibility in light of that second version of the argument. Before examining this view, I now want to compare the view of self-consciousness that emerges from the concept version of Cassam's argument, and Kant's conception self-consciousness in the Transcendental Deduction schematized above.

What would Kant say of Evans's and Shoemaker's notion of spatiotemporal "enabling conditions"? Again leaving aside all issues pertaining to transcendental idealism,[15] this is what we can presume Kant would say. It is not enough that spatiotemporal enabling conditions (spatial proximity, temporal constraints on the experiential route of the subject) be satisfied for us to be able to recognize one numerically identical object rather than several qualitatively identical objects, or the reverse. It is therefore also not enough that the subject of experience be in a position to think of herself as the numerically identical subject whose experiential route through the world allows her to relate perceptions to the objects they are the perceptions of. For the enabling conditions to do their work, the subject must not only be aware that the perceptions are hers. She must not only be aware of their spatiotemporal enabling conditions (she is in the vicinity of this or that object, this or that much time has elapsed, and so on). She must also be in a position to take in and interpret those conditions. For this to be possible, some set of minimal discursive capacities must be at work—capacities to form judgments about these enabling conditions, by combining and comparing perceptions according to rules. And of course, as in Evans/Shoemaker/Cassam's argument, the subject that exercises these discursive capacities must be conscious of her own numerical identity. But this is her identity *as the agent that exercises these capacities* of usefully taking in and interpreting the enabling conditions.

In short, Evans/Shoemaker/Cassam (ESC) lay out the *objective* conditions (enabling conditions) that allow us to interpret our subjective perceptions one way rather than another in relating them to independently existing objects. They then argue—and this is the main point in Cassam's argument about self-consciousness—that those enabling conditions can do their work only if the subject of experience relates its perceptions to itself as a numerically identical subject. This is because the subject's *objective* (albeit subjectively apprehended) experiential route determines which objects s/he perceives or does not perceive. But Kant points out

that even the consciousness of the numerical identity of the subject of experiences would do no work at all unless this consciousness were that of a *thinking subject* whose combining and comparing capacities allow her to interpret (and according to Kant's transcendental idealist convictions, constitute) the enabling conditions that make possible the recognition of independently existing objects. This is why, in the schema laid out above, 2k defines the numerically identical subject as a *thinking* subject (not just the subject to which one ascribes perceptions). And 3k asserts that the act of combining is structured by the categories (a point I will leave out of consideration here). In other words, Kant goes one more step back in asking *what makes it possible for us* to think of our experience as experience of independently existing objects. All the enabling conditions in the world would not allow us to think of our experience in this way unless we were equipped to pick them out and interpret them.

This "one more step back" explains, I think, the difference between Cassam's and Kant's understanding of what it means to "ascribe representations to one and the same subject." Cassam writes:

> Without being unified by means of their actual or potential ascription to a single subject, diverse perceptions would be independent units, and no one perception would have any bearing upon any other. For example, the fact that (a perception) P2 was a perception as of Hyde Park Corner only contributes to the conceptualization of (another perception) P1 as a perception of London's Marble Arch [rather than a perception of a qualitatively identical marble arch located elsewhere, say in Dallas] if P1 and P2 are represented as belonging to the same subject. Without this assumption, the appeal to how far a *single* subject could have traveled within a short span of time would be quite ineffective, for the subject S1 of P1 might indeed have been located in Dallas and the subject S2 of P2 located in London as long as it is not assumed that S1 and S2 are numerically identical. This is at least one sense in which, as Kant puts it, "we are conscious a priori of the complete identity of the self in respect of all representations which can even belong to our knowledge, as being a necessary condition of the possibility of all representations." (A116)[16]

But really, what Kant means by "the identity of our self" is the identity of one and the same subject *of thought,* whose combining and comparing capacities must be at work so that the "enabling conditions" mentioned above can be interpreted in such a way that our perception be a perception *as of* London's Marble Arch rather than *as of* Dallas's Marble Arch; or *as of* New York's Statue of Liberty rather than *as of* the Statue of Liberty on the river Seine. And so on.

What, then, is the relationship between the "identity of our self" so conceived and the identity *of our body?* Actually, here Kant's position is not that different from Cassam's in the weakened version that emerged from the concept version of the objectivity argument. For as we saw, our conclusion was that at least from *that* version of the argument, one could derive no necessity at all for the idea that the numerically identical subject of experience ought to be conceived as a physical

object among physical objects. All it *had* to be conceived as, was the bearer of a geometrical standpoint on the world. Even if, in order to experience objects as shaped and solid (which in any case introduced new specifications to the notion of an independently existing object), we needed to experience ourselves as shaped and solid, this did not necessarily indicate that the numerically identical standpoint to which experience was ascribed was *itself* that of a body. It could just be correlated in some way with a body. Now, this is just what happens with Kant's numerically identical subject of the acts of interpreting ESC's enabling conditions. The subject to whom experience is ascribed as mine is the referent of "I," whatever it is, that is the condition for Cassam's "geometrical standpoint." Kant does argue, later in the *Critique,* that this subject appears to itself in such a way that its mental states are correlated with those of a body, causally connected with other bodies in space.[17] But there is no need to think anything more about the referent of "I" than the fact that it is the numerically identical agent of the judging (and reasoning) activities that make possible the interpretation of enabling conditions for the recognition of independently existing objects, including our own body as the mediator of the sensory content of our experience.

So again, what we have so far from Cassam is the following: we are in a position to think of our experiences as including perceptions of objects in the weighty sense only if we ascribe our perceptions to a numerically identical subject traveling through the world. There is no necessity to think of this subject as a physical object. Although we can experience objects as extended, shaped, and solid only if we experience our own body as extended, shaped, and solid, this is not necessarily experiencing *ourselves,* qua the bearer of a numerically identical point of reference traveling through the world, as extended, shaped, and solid. And if we compare Cassam's view to Kant's view, what we have to add, as Kant's contribution, is the idea that the bearer of the point of reference that is "myself" has to be the subject of comparing, judging and reasoning activities by way of which Shoemaker's, Evans's, and Cassam's "enabling conditions" can become just that: conditions enabling us to identify and reidentify the objects or our perceptions as independently existing objects. There is no necessity to say that we are conscious of ourselves qua this judging subject as a physical object among physical objects.

However, as I announced earlier, in the second version of his objectivity argument—the "intuition version"—Cassam argues for a tighter connection between awareness of oneself *qua* subject of experience and thought and awareness of oneself as a *physical object*—a body. This is what I now want to consider.

IV. AWARENESS OF ONESELF QUA SUBJECT AND AWARENESS OF ONE'S OWN BODY

Interestingly, it is in the context of the "intuition version" of his objectivity argument that Cassam provides a more complete explanation of the expression *qua subject* in

"being aware of oneself *qua subject.*" He now looks for characteristic *modes of awareness* that would specifically pick out awareness of oneself *qua* subject. If there are such characteristic modes of awareness, and if our awareness of our own body is or can, in some cases at least, be an instance of them, then there is no reason to deny that our awareness of our own body is, or can be, an awareness of ourselves qua subjects, rather than simply an awareness of the body *associated with* our awareness of ourselves qua subjects. And if this is so, then Kant was indeed wrong to distinguish as radically as he did between awareness of ourselves qua subject and awareness of ourselves as an object.

In this part of the paper I shall examine Cassam's argument to the effect that the specific constraints on awareness of oneself *qua subject* are met by one way in which we are aware of our own body. I shall then ask again how well Kant's own view faces Cassam's challenge.

The first characteristic Cassam points out for awareness of oneself qua subject takes its inspiration from Wittgenstein's well-known distinction, in the *Blue Book,* between "the use of the word 'I' (or 'My') as object and the use as subject."[18] As examples of the first, Wittgenstein gave: "My arm is broken," "I have grown six inches," "I have a bump on my forehead," "The wind blows my hair about." As examples of the second, he gave: "*I* see so and so," "*I* try to lift my arm," "*I* think it will rain," "*I* have a toothache." Wittgenstein explains the difference in the following way:

> One can point [to] the difference between the two categories by saying: the cases of the first category involve the recognition of a particular person, and there is in these cases the possibility of an error, or as I should rather put it: the possibility of an error has been provided for. [. . .] It is possible that, say in an accident, I should feel a pain in my arm, see a broken arm at my side, and think it is mine, when really it is my neighbor's. And I could, looking in the mirror, mistake a bump on his forehead for one on mine. On the other hand, there is no question of recognizing a person when I say I have a toothache. To ask: "are you sure it's *you* who have pain?" would be nonsensical. Now, when in this case no error is possible, it is because the move which we might be inclined to think of as an error, a 'bad move', is no move in the game at all." And further: "To say, ' I have a tooth-ache' is no more a statement *about* a particular person than moaning is."[19]

Wittgenstein concludes that in its use "as subject," "I" does not refer at all. Since there is, with this use of the word, no identification of a particular object, there is also no possibility of *mis*identification.

Shoemaker has taken up Wittgenstein's distinction but argued against Wittgenstein that in its use "as subject," the word "I" does refer, albeit in a different way than it does in its use "as object." In its use "as subject," the word "I" belongs to a judgment that is, in Shoemaker's terms, "immune to error through misidentification relative to the first person pronoun." In its use "as object," the judgment to which the word "I" belongs enjoys no such immunity. And this difference between

the two kinds of judgments is itself based on the kind of awareness which grounds the judgment. So, for instance: to say that the judgment "I have a toothache" is immune to error through misidentification relative to the first-person pronoun is to say that the following situation could not obtain: I know someone to have a toothache, but I am mistaken in asserting the judgment cited because, and only because I am mistaken in believing that person to be me. Similarly, to say that a judgment such as: "I see a canary" is immune to error through misidentification relative to the first-person pronoun is to say that although I could of course be mistaken in believing that there exists anything at all out there that I see, or in believing that what I see is a canary, I could not be mistaken in this particular way: I know someone to be seeing a canary, but I am mistaken in believing that this someone is me. On the other hand, in a judgment that is *not* so immune, this kind of mistake could perfectly well occur. To say that in the judgment "I have grown six inches" the word "I" is used "as object" is to say I could be mistaken not only in believing that I have grown at all, or that the amount I have grown is as much as six inches; but also in this particular way: I know someone to have grown six inches (the marks my brother and I make on the wall in measuring our growth each month indicate it; or I see in the mirror that one of us now reaches the top of the kitchen cabinet) but I am mistaken in believing that this someone is me (the mark is not mine, the figure in the mirror is not me). The point is that the peculiar kind of awareness that is my source of information in the first kind of judgment does not open judgments based on it to the particular kind of mistake that would consist in misidentification relative to "I." In the second kind of judgment, it could.[20]

Now, the important point, for Cassam's argument, is that this kind of immunity to error is not the exclusive privilege of judgments expressing the self-ascription of mental states. It also pertains to some judgments expressing the self-ascription of bodily states, such as our position in space or the relative position of our limbs. So for instance, a judgment such as "I stand in front of the table" or "my legs are crossed" might be mistaken in that what I am standing in front of is really not a table, or my kinesthetic information is misleading in some way. But it could not be mistaken in the following way: I know someone to be standing in front of the table but I am mistaken in believing that someone to be me; I know someone to sit with her legs crossed, but I am mistaken in believing that someone to be me. Through proprioceptive/kinesthetic awareness, I cannot make this kind of mistake, which I could of course make if I were looking in a mirror and mistaking my sister's reflection for my own.

However, as Evans, Shoemaker, and Cassam all point out, this kind of immunity to error is actually not proper only to the use of "I" "as subject." It also characterizes some demonstrative judgments. To borrow an example from Shoemaker and Evans, a judgment such as "this looks red" is immune to error through misidentification relative to the demonstrative pronoun. I could of course be mistaken in believing that this looks red, or that there is anything at all out there to look one way or the other. But I could not be mistaken in this particular way: I *know* something to be looking

red, but is it this? (pointing to the red-looking thing I have in front of me). So, mere immunity to error through misidentification relative to X would not be sufficient to distinguish awareness of self qua subject. Our judgments based on such awareness might just be particular cases of demonstrative judgments, which certainly are judgments *about objects.* If this is so, then it does not seem that its grounding this kind of identificationless reference captures anything peculiar about our awareness of ourselves qua subjects.

However, in the case of the use of "I" as subject, the immunity to error goes one step further. As Shoemaker and Evans point out, not only is the I-thought *at some particular time* immune to error through misidentification, but keeping track of one's identity *through time* does not require any particular skill for identification or reidentification either. This definitely constitutes a difference between demonstrative judgments and "I" judgments. I can move from "this is red" to "this was red yesterday" only if I make sure the "this" I am pointing to is indeed the one about which I said or thought yesterday: "this is red." But moving from "I am standing in front of the table" to "I was standing in front of the table yesterday" does not require any particular skill or technique for reidentifying the referent of "I." Neither does the move from "I am angry" to "I was angry" or "I see a canary" to "I saw a canary."[21]

So here we have come upon a criterion that is clearly distinctive of awareness of self *qua* subject. Only I-thoughts where "I" is used "as subject" are immune to error through misidentification not only at a given time, but also through time. One might therefore say: awareness of self qua subject is the kind of awareness that grounds I-thoughts that are immune to error through misidentification relative to the first-person pronoun *and* require no tracking of the identity of the referent of "I" through time. Now, some judgments expressing bodily awareness can, just as well as judgments expressing self-ascription of mental states, have such immunity to error. So, bodily awareness does meet the specific characteristic of awareness of self qua subject. There are cases where awareness of one's own body *is* awareness of oneself, qua subject, as a physical object among physical objects.

Now, one might grant that one of the ways in which we are aware of our own body is that particular way which grounds the "use of 'I' as subject" and thus meets the specification of awareness of ourselves qua subject. But since this has been clearly distinguished from awareness of anything at all *as an object,* which does require both identification *and* tracking through time for *re*identification, it still seems that even in the case of our own body, we must distinguish between awareness of it qua subject, and awareness of it as an object. If this is so, then Cassam's view remains questionable. The interesting point that results from the preceding analysis is that bodily awareness can be of both kinds—awareness qua subject, awareness as an object. But surely it cannot be both at once, being self-aware in one way is different from being self-aware in the other way.[22]

Cassam acknowledges the objection. But he replies that there are two ways of understanding "as a physical object" in the expression "awareness of oneself as a physical object." According to the narrower notion, a physical object is a shaped,

located, and solid thing that requires temporal tracking for its identification. According to the broader notion, a physical object is a shaped, located, and solid thing, but no specification is given as to the mode of access to it (with or without temporal tracking for its identification and reidentification). If we go by the narrower notion, then indeed it is not possible to be aware of oneself qua subject as a physical object. But if we go by the broader notion, then there is no incompatibility at all between awareness of oneself qua subject and as a physical object. One can be aware of oneself, indeed it has just been shown that in the kind of self-consciousness that is a necessary condition for conceiving of one's experience as experience of independently existing objects, one *must be* intuitively aware of oneself, qua subject, as a physical object among physical objects (a sentient body).

This answer, it seems to me, rests on an equivocation concerning the word "object." Cassam's "broad" sense of object (something shaped, located, and solid) is an ontological description of a physical thing. Cassam's "narrow" sense of object (something for the reidentification of which tracking through time is required) is an epistemological requirement on being an *object of knowledge.* The difference between the two notions is not a difference between "broader" and "narrower" version of the same kind of description. It is a difference between two kinds of description, one ontological, the other epistemological. So there is no surprise in the fact that on the one hand, according to the "broader" (ontological) notion, one can be aware of oneself, qua subject, as a physical object. And on the other hand, one cannot be aware of oneself, qua subject, as an object in the "narrow" (epistemological) sense. In fact the latter impossibility would be more aptly expressed if one said: "one cannot be aware of oneself qua subject qua object."

We now see the ground for Cassam's use of two different words: "qua," "as," for "qua subject," "as an object." "Qua" introduces a *mode of access* to what we are aware of. This mode of access may involve temporal tracking. This would be awareness of oneself qua object: "this is me, on this picture, on top of the mountain; and here, on this other picture, this was me the day before, at the base camp. Or is this really me?" Alternatively, the mode of access may involve no temporal tracking at all. This would be awareness of oneself qua subject of experiential states (proprioception, perception, thought, memory, and so on): "I am standing on top of the mountain. Yesterday I was at the base camp." There is no room, *on the basis of this kind of self-awareness,* for the question "Or was it me?" If I know—namely, if I am justified in believing, on the basis of this kind of awareness—that someone was in the base-camp yesterday, there is no room for the question: "was that someone *me?*"[23]

In contrast, "as a" (in: "as an object") introduces the ontological category to which the thing we are thus aware of in one way or another, belongs: it is either a physical (material) or an immaterial thing. Cassam's thesis is that *even* in the peculiar mode of awareness of oneself that is awareness of oneself qua subject, one is aware of oneself as a physical thing among physical things. But of course he cannot claim—and does not want to claim—that one is aware of oneself qua subject qua object. That would be nonsensical. His position would be clearer, I suggest, if he

had laid it out in these terms: one *can,* indeed one must, be aware of oneself qua subject as a physical thing, although one of course cannot be aware of oneself qua subject qua object. But then it would also be clear that an incompatibility does remain, even for him, between awareness of oneself qua subject and awareness of oneself qua object.

Now, one might still insist that this "thing" we are aware of qua subject is something we are *also* aware of qua object (with a possible misidentification and failure of temporal tracking). The very same entity of which we are aware of qua subject, is an entity of which we are also *at the same time* aware of qua object, indeed as a physical object. Presented in this way, Cassam's position is very close to that of Merleau-Ponty. For Merleau-Ponty, our body is, on the one hand, a phenomenal body, a body we are immediately aware of as the bearer of our states of awareness, without any objective identification or localization (i.e., without what Merleau-Ponty calls "thetic" or "positional" consciousness). Of this very same body we also have thetic consciousness: we can identify and misidentify a point on our body, locate our body and mislocate it on a map, identify it and misidentify it in a mirror, track it and fail to track it through time. For these very identifications (and misidentifications) of oneself to take place, the non-thetic awareness, the awareness Cassam calls awareness of self qua subject, must always be present. So, one *can,* indeed in most cases one *must* be aware of oneself qua subject *and* qua object. Nevertheless, the relation is one of conjunction, not one of identity. So perhaps one should say: one is aware of oneself qua subject *and* qua object, as a physical entity among physical entities. And if one equates "entity" with "object," then one gets Cassam's formulations cited at the beginning: "Self-consciousness [. . .] is intimately bound up with awareness of the subject 'as an object'—not as an 'immaterial' substance but as a physical object in a world of physical objects."[24]

It is a striking result that Cassam's "intuition version" of his objectivity argument should leave him in such close proximity to Merleau-Ponty's view of the body as a "subject-object." What does this tell us about the relation between both these views and Kant's view of self-consciousness? This is what I now want to consider.

V. KANT ON SELF-CONSCIOUSNESS

Kant's consciousness of oneself as subject is what he also calls "transcendental self-consciousness," which he distinguishes from "empirical self-consciousness." I am going to argue that the former meets the specifications of ESC's intuitive awareness of oneself *qua* subject: immunity to error through misidentification relative to "I," no temporal tracking. The second notion (empirical self-consciousness) is more difficult to pin down. I have identified three different (and related) meanings for it. Only the first clearly meets the specifications of Cassam's intuitive awareness of oneself, qua subject. The other two are more difficult to classify in one or the other

of Cassam's two modes of awareness. Without further ado, I will expound those distinctions as I understand them, and then propose some conclusions concerning Kant's view of self-consciousness.

I start with transcendental self-consciousness.

V.1 TRANSCENDENTAL SELF-CONSCIOUSNESS (TRANSCENDENTAL UNITY OF APPERCEPTION)

We saw earlier that Cassam shares with Kant the idea that experience of independently existing objects is possible only if one is capable of ascribing one's representations to oneself as the numerically identical subject of those representations. But what this numerically identical subject amounts to is very different for Cassam and for Kant. For Cassam, it is an empirical subject (or substrate, as a bearer of perceptual states) whose experiential route through the world determines spatiotemporal enabling conditions of perception. For Kant it is the agent, *whatever that agent might be,* of the act of combining and comparing representations by way of which spatiotemporal enabling conditions for recognizing independently existing objects become available for cognition in the first place. Referring to oneself as this agent is certainly not referring to *an object* in the sense expounded in the previous section of this paper. There is nothing to identify or reidentify *as* a particular object. In transcendental self-consciousness, I am, then, in a situation of immunity to error through misidentification relative to I. But this is not because, as in Cassam's argument, I can be aware of a thing—my own body—qua subject, i.e. in that particular way that grounds judgments "immune to error through misidentification relative to the first person." In transcendental self-consciousness there is, literally, no *thing* to identify as myself, although I am conscious that the *I* to which I refer my representations does have a numerical identity that is my own: the numerical identity of the subject bearing the unity (or better, the numerical identity of the agent responsible for the unity) of the act of combining, comparing, reflecting representations I *therefore* call my own.[25]

Kant expressly says that this *I* is in no need of temporal tracking. It thus meets the requirement most specific to awareness of oneself qua subject, according to ESC. Kant's formulations on this point are quite striking.

> In the whole time in which I am conscious of myself, I am conscious of this time as belonging to the *unity of myself,* and it comes to the same whether I say that this whole time is in me, as individual unity, or that I am to be found as numerically identical in all this time.
>
> In my own consciousness, therefore, identity of person is unfailingly met with. [. . .] (A362)

What he means, I suggest, is this: the temporal unity of *my* experience, which allows me to locate *in one time* each event in my individual biography as well as each event occurring in things around me, depends on the transcendental unity of consciousness; namely, the unifying function at work in the combination of my representations,

which I thus refer to myself as the agent of that combination. In this sense, time is "in me," where "me" clearly does not refer to a thing (such as a thinking substance) but rather to the agent of the unity of representations which is *both* the condition for my thinking of those representations as "my" representations, and the condition for their being related to independently existing objects. The unity of time is thus, for me (from my standpoint), constituted by me. But the formulation can be turned around. As far as my experience of myself with respect to time is concerned, saying that "time is in me" is equivalent to saying: "I am numerically identical throughout the whole of time." One and the same I of transcendental apperception is present at each instant in the time of my experience. I am immediately and indubitably conscious of its numerical identity through time, an identity that is not that of an object I identify and reidentify through time, but that of myself as the agent of the unity of thought at work in my representations.

> The identity of the consciousness of myself at different times is therefore only a formal condition of my thoughts and their coherence, and in no way proves the numerical identity of my subject. (A363)
> [Note that "subject" at the end of this quote means *metaphysical* subject, not the mere logical subject I: see distinction in note 1 of this paper.]

This consciousness of the numerical identity through time of myself as the referent of "I" in "I think," however, is not the only standpoint I have on myself. I can also adopt the standpoint of *another* on myself. Then I am an object, and moreover an object of outer sense, a physical thing, albeit one that the outside observer is capable of recognizing as endowed with consciousness and self-consciousness. But there will be, from the standpoint of this outside observer, no immediately given numerical identity through time of the outer object that is "me," in the way there is for me and for me alone an immediately given numerical identity through time of myself as the "I" of apperception.

> But if I view myself from the standpoint of another person (as object of his outer intuition) it is this outer observer who first represents me *in time* [. . .]. Although he admits, therefore, the "I" which accompanies, and indeed with complete identity, all representations at all times in *my* consciousness, he will draw no inference from this to the objective permanence of myself. For just as the time in which the observer sets me is not the time of my own but of his sensibility, so the identity which is necessarily bound up with my consciousness is not therefore bound up with his, that is, with the consciousness which contains the outer intuition of my subject. (A362–63)

So, to sum up: what Kant calls "transcendental self-consciousness" is a consciousness of ourselves *not* as an identifiable and reidentifiable object, but merely as the "I" or "me" to which I relate my representations when I combine them so that they can be related to objects and more generally, so that they belong in one process of judging and reasoning. There is no object we need to be aware of and reidentify through time in order to ascribe our representations to ourselves in this way.

What about, then, *empirical* self-consciousness? Is it all consciousness of oneself *as an object* (in Kant's sense) and *qua object* (in Cassam's sense)?

V.2 EMPIRICAL SELF-CONSCIOUSNESS

V.2.1 the bare representation "I" as empirical consciousness

Kant writes:

> Consciousness of oneself [*das Bewusstsein seiner selbst*] according to the determinations of our state in inner perception is merely empirical, and always changing. No fixed and abiding self can present itself in this flux of inner appearances. Such consciousness is usually named inner sense, or empirical apperception. What has necessarily to be represented as numerically identical cannot be thought as such through empirical data. (A107)

This text indicates that there is, according to Kant, simply no way in which, by considering the empirical content of inner sense (awareness of our own mental states) we would ever come up with the representation "I." In this regard, Kant's position is quite like Hume's.[26] However, according to Kant the content of inner sense is ordered according to the unity of apperception (the unified and numerically identical act of combining, comparing, abstracting) and *this* gives us awareness of the identity of ourselves:

> We are conscious a priori of the complete identity of ourselves in respect of all representations which can ever belong to our cognition, as being a necessary condition of the possibility of all representations. (A116)

And most strikingly:

> The bare representation "I" in relation to all other representations (the collective unity of which it makes possible) is transcendental consciousness. Whether the representation is clear (*empirical consciousness*) or obscure, or even whether it ever actually occurs, does not here concern us. But relation to this apperception as a faculty necessarily conditions the possibility of the logical form of all cognition. (A118, italics mine)

How are we supposed to understand the claim that empirical consciousness is transcendental consciousness when it is "clear"? Kant says elsewhere that "I think" is an empirical proposition because "without some empirical representation to supply the material for thought, the actus 'I think' would not, indeed, take place" (B423n). I suggest that the "empirical proposition 'I think'" is the expression of the "clear" consciousness of the numerically identical act of thinking that is "obscurely" at work in all binding and comparing of our empirical representations.

So far, empirical self-consciousness would deserve, in Cassam's terms, to be characterized as awareness of oneself qua subject. For it is the "clear" awareness of one's numerically identical "I" through time. But this is only the first aspect of empirical self-consciousness as described by Kant. I announced two more. The second is awareness of my inner (mental) states. The third is awareness of myself as a body.

V.2.2 the "mere, but empirically determined, consciousness of my own existence"

First, consciousness of inner states. In his famous (or infamous) Refutation of Idealism, Kant argues that

> The mere, but empirically determined, consciousness of my own existence proves the existence of objects in space outside me. (B275)

What he means by "my own existence" is the existence of the unified sequence of my perceptual states. His argument in the Refutation is that I would have no consciousness of the temporal ordering of my perceptual states unless there were something permanent outside me to provide the objective temporal framework for this ordering. My purpose here is not to examine the validity of this argument. Rather, it is to call attention to two points. First, according to Kant, one is conscious of oneself in this empirical sense *not* when one directs one's "mental gaze" to one's inner states. But rather when, *in* directing one's mental gaze to *outside objects,* one becomes *also* aware of the distinction between the temporal determinations of those objects and the temporal determinations of one's perceptions and experience of them (what I called above one's perceptual states). Second, as the consciousness of the temporally ordered content of one's inner sense, over-against the temporally ordered content of one's outer sense, consciousness of my perceptual states is consciousness of my own existence as an object (of inner sense).[27]

Does that make it consciousness of myself qua object, in Cassam's sense; namely, the kind of consciousness that does not have "immunity to error through misidentification with respect to the first person?" I am not sure how to think about this case, but I am tempted to say that it *does* fall under Cassam's criterion for awareness of oneself, *qua* object. For one could make the case that I *can* mistakenly identify as "mine" or part of "myself" (as an object of inner sense) perceptions, experiences, emotions, and so on. Falsely identifying as mine, here, would mean: having the wrong causal chain in view, where under the power of suggestion, quasi-memory, hallucination, or what have you, I track as part of my history (the history of an empirically given body and of an empirically given, causally unified chain of mental states), what is really part of the history of another (namely, another empirically given body and causally unified chain of mental states).

Now what about myself as *my body?*

V.2.3 Consciousness of my own body

In the Third Analogy of Experience, Kant writes:

> We may easily recognize from our experience that only the continuous influence in all parts of space can lead our senses from one object to another. The light which plays between *our eyes* and the celestial bodies produces a mediate community between *us* and them, and thereby shows us that they coexist. We cannot empirically change *our position* and perceive the change unless matter in all parts of space makes *perception of our position* possible to us. (A213/B260, italics mine)

Clearly, the "me" (or "us") I am (we are) aware of here is my body (our respective bodies). Being conscious of *my* position is being conscious of the position of my body. So, in this case being conscious of myself is being conscious of my body as the bearer of perceptual states. As described here, the role of the body in mediating our awareness of the universal community of substances in space is very similar to the role of the numerically identical empirical subject in determining enabling conditions for perceptions, according to ESC.[28] It is tempting, therefore, to think that the empirical consciousness of ourselves *as this body* has the features Cassam assigns to intuitive awareness of oneself qua subject: immunity to error through misidentification with respect to "I," no temporal tracking. But Kant says nothing to indicate this possibility.[29] And indeed, it would not fit very well in his framework. For Kant, bodies, including my own, are one and all objects of outer sense, just as my mental states are objects of inner sense. The most we can say is that transcendental self-consciousness is for each individual thinker individuated as the "clear" (empirical) consciousness whose content is provided by sensory states and that the temporal order of the latter is related in some specifiable way to the temporal order of the positions of a particular body.

VI. CONCLUDING REMARKS

I started this paper with two questions: (1) Is Kant correct in distinguishing consciousness of ourselves *as subjects* and consciousness of ourselves *as objects?* (2) Is he correct in excluding our consciousness of our own body from any kind of consciousness of ourselves as subjects? I looked for novel insights into these questions in Cassam's book, *Self and World,* whose driving goal is to challenge Kant mildly on the first point and severely on the second.

One obvious aspect of this confrontation is that Cassam's notion of "subject" is significantly different from Kant's. The notion Cassam starts with is the classical metaphysical notion of a subject as substrate; i.e., as the bearer of properties. In this case the main relevant property is perceptual experience. Cassam's thesis is that, in being aware of ourselves qua subjects in this sense—i.e., qua bearers of perceptual experience—we are aware of ourselves as physical objects among physical objects.

Kant's notion of a subject, in contrast, is twofold. (1) "Subject" means the (unknown) transcendental subject which is the (unknown) referent of "I" in the proposition "I think." That notion of a subject, like Cassam's notion of a subject, is the classical metaphysical one. However, according to Kant we do not have any cognitive access to the transcendental subject so defined, for reasons having to do with his transcendental idealism. But this aspect of this view did not really concern me, since I chose to focus the discussion—as Cassam himself did—on those aspects of Kant's view that were not directly dependent on transcendental idealism. (2) Kant's second notion of "subject" is the "logical" subject "I" of the proposition "I think," a

thought which plays a role in bringing about and expressing in thought the "transcendental unity of apperception," i.e., the unitary act of combining and comparing representations which makes my experience *my own.* This notion of a subject is clearly completely different from Cassam's notion of subject as a bearer of (mental) properties. It is this notion we saw at work in the general structure of Kant's transcendental deduction of the categories, which I compared to the structure of Cassam's "objectivity argument" for his thesis, in the second part of this paper.

One might object that given this radical difference in the notions of "subject" at work in each argument, the confrontation between Kant's and Cassam's view is quite arbitrary. The reason I don't think it is arbitrary is that each notion appears *at the same point,* respectively, in Cassam's objectivity argument and in Kant's transcendental deduction of the categories (see above). So we have here a first answer to the question, why does Kant's view resist the position Cassam thinks he should have held (namely, that in being aware of ourselves qua subjects we are aware of ourselves as a physical object among physical objects)? The reason is of course that Kant's subject in the second sense, the *logical subject,* the subject "I" of the proposition "I think," is *no thing* at all, and so even less a thing we could be aware of as a physical object. It is just the focal point, for each of us individually, of the unity of apperception or unitary act of binding representations. All we need to think about ourselves insofar as we think of ourselves as the referent of "I" in this proposition "I think" is that we are the thinker of the thoughts so unified, and thus accountable for the consistency of these thoughts.

In a part of his book which I did not discuss in this paper, Cassam does recognize that the "I" of Kant's "I think" is a mere "logical subject" and the "I think" itself a mere form of representation (what I have called a mode of ordering representations).[30] But, he charges, so considered Kant's "I" is a mere abstraction from the concrete, complete notion of the subject, the numerically identical person whose experiential route through the world traces out the spatiotemporal enabling conditions for the perception of independently existing objects.[31] In thus reducing Kant's "I" of the "I think" to a mere abstraction, rather than acknowledging the role Kant assigned to the thought "I" in "I think," Cassam misses an important aspect, indeed the most important aspect of Kant's view. "I" in Kant's "I think" is not a self-referring expression in the modern sense of theories of reference. Rather, it is a term, or a thought, playing a role in our activity of binding representations in a way that makes them both, and inseparably, related to objects "in the weighty sense" ascribed to the agent that is accountable for the act of binding, whoever or whatever that agent might be. Considered in this way, if we want to find a modern descendent to Kant's "formal" or "logical" I, perhaps it could be found more in the direction—*horribile dictu?*—of Freud's *ego* as opposed to *id* (both of which, rather than referring to a particular *entity,* define a specific logic of the mind)[32]—than in the direction of contemporary theories of self-reference.

Now we also saw that in complementing the "concept version" with the "intuition version" of his argument, Cassam surreptitiously moved to a second use of the

word "subject": to be intuitively aware of oneself qua subject is to be aware of oneself in a way that is immune to error through misidentification relative to the first-person pronoun, and requires no temporal tracking of one's identity. From a context where "qua subjects" meant "in our capacity as bearers of experiential states" we thus moved to a context where it meant: "in the peculiar mode of access to ourselves that makes reference to ourselves immune to error through misidentification relative to the first-person pronoun, and requires no temporal tracking of the identity of oneself." Is this slide justified?

What justified it in Cassam's eyes was the search for a criterion that would allow claiming for *bodily* self-awareness the status of awareness of oneself qua subject in the first sense: as the bearer of experiential states. So the question is: do the criteria Cassam does come up with (immunity to misidentification, no temporal tracking) cash in on a mere play of words, relating Cassam's "awareness of self qua subject" in the metaphysical sense, and Wittgenstein's "use of 'I' as subject" (which is certainly not metaphysical)? The answer, I think, is that it is *not* a mere play of words. Cassam is correct to state that those two criteria uniquely apply to *self*-awareness, where the "self" one is aware of is a subject of proprioceptive, perceptual, or more generally mental states. So, the criteria are not arbitrary, and ESC's argument to the effect that at least in some cases *awareness of our own body* meets those criteria, if successful, is an interesting and important point for Cassam's purposes.

Now, *Kant's* self-consciousness meets the two criteria only under two of its descriptions: transcendental self-consciousness, and empirical self-consciousness as transcendental self-consciousness made "clear." Of the two further specifications of empirical self-consciousness, I suggested that one (consciousness of myself as the unified sequence of inner states I recognize as "my own" under the transcendental unity of apperception) is open to misidentification. And the other (consciousness of my own body) should, as far as Kant's position in the *Critique* is concerned, be characterized as consciousness of oneself as an object, although some of the features of this consciousness, as exemplified in the Third Analogy of Experience, bring it very close to Cassam's "consciousness of myself, qua subject, as a physical object."

Compare again this result with what emerged from Cassam's "concept version of the objectivity argument." As we saw, no successful argument could be mounted to the effect that *believing* oneself to be, qua subject, a physical object among physical objects, is a necessary condition for conceiving of one's experience as experience of objects in the weighty sense. The only necessary condition was conceiving of oneself as a geometrical point of reference traveling through the world and thus determining spatiotemporal enabling conditions of perception. The intuition version of the argument, in contrast, established that *being intuitively aware of oneself, qua subject, as a physical object among physical objects,* was a necessary condition for such perception. But Cassam himself acknowledged that this was in fact a weaker condition than the belief condition of the concept version. For one could be intuitively aware of oneself, qua subject, as a physical object, while believing that *in fact*

one's subjective states are merely associated with the route through the world of a physical object.[33]

The upshot, then, is that where transcendental self-consciousness is concerned (consciousness of the "logical I" as a condition and an expression of the transcendental unity of apperception), Cassam missed the force of Kant's view. Where empirical self-consciousness is concerned, Cassam's view is gradually weakened to a point where it comes very close to Kant's view. I conclude that after Cassam's assault, Kant's view is still standing. Nevertheless, it is to the credit of Cassam's analysis that its relentless probing helps us identify, as in a chemical precipitate, what is original and unique about Kant's view.

NOTES

1. See for instance Immanuel Kant, *Critique of Pure Reason,* A346/B404; A402; B422. (Kant's *Critique of Pure Reason* is cited in the standard way, by reference to the pagination in the first, 1781 edition (indicated by A) followed by reference to the pagination in the second, 1787 edition (indicated by B). Kant's claim that we cannot know the subject of thinking *as an object* because it is presupposed in all thinking seems particularly lame. Would we say that we cannot know our brain as an object because brain functions are at work in all thinking? As we shall see, a stronger version of Kant's argument is that "I" as the logical subject in the proposition "I think" is a mere thought whose role is to express the unity and logical consistency of the thoughts predicated of it. So considered, it has no object given in intuition. And insofar as it has an object that is *merely thought,* as opposed to being given in intuition and related to other objects in space and time, that object is unknowable. I shall say more on this point below. Note also that Kant uses the term "subject" in two ways. On the one hand, "subject" is the logical subject "I" in the proposition "I think." On the other hand, it is the *transcendental* subject, namely a subject in the traditional, metaphysical sense: a metaphysical substrate of thought. To say that the logical subject "I" is not known as an object is to say that there is no *thing* to be known as the referent of "I" (and thus "as an object"). The transcendental subject, on the other hand, is a thing (or things). To say that it is not known "as an object," however, is to say that it is not given in sensible intuition, and thus identifiable and reidentifiable under a concept. On this point, see my "Kant's 'I Think' versus Descartes' 'I am a thing that thinks,'" in *Kant and the Early Moderns,* ed. Daniel Garber and Béatrice Longuenesse (Princeton, N.J.: Princeton University Press, forthcoming).
2. See Martin Heidegger, *Being and Time*, trans. Joan Stambaugh (Albany: SUNY Press, 1996); Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (London: Routledge, 1992); P. F. Strawson, *The Bounds of Sense* (London: Methuen, 1966), especially 104–8; 162–74; Gareth Evans, "Self-Reference," in *The Varieties of Reference* (Oxford: Oxford University Press, 1985), 1982; John McDowell, *Mind and World* (Cambridge: Harvard University Press, 1994); Quassim Cassam, *Self and World* (Oxford: Oxford University Press, 1997).
3. Cassam uses two different locutions, *qua* and *as:* we are aware of ourselves *qua* subjects, *as* physical objects (see the quote referenced below, n. 4). He never explains his reasons for using these two different locutions *("qua,"* "as"). I think he in fact has good reasons for doing so. But because he never lays them out explicitly, he lets an equivocation slip into his argument, as I shall show later (see pp. 297–98). I shall generally follow his use (*qua* subject, *as* an object) and eventually discuss it (298). Note also that Cassam uses the expression "awareness" where Kant uses, in German, "Bewusstsein" (for which I offer the standard translation: "consciousness"). Kant's "consciousness" and "self-consciousness" are less empirical-psychological than Cassam's "awareness" and "awareness of oneself," as will appear from the discussion below. Nevertheless, Cassam's "awareness of oneself, qua subject" is inspired by Kant's "consciousness of oneself, as a subject" just as Cassam's "awareness of oneself, as an object" is inspired from Kant's "consciousness of one-

self, as an object." Cassam also uses the expression "self-consciousness," especially in formulating the grounding thesis of his book: "It is a necessary condition of self-consciousness that we be aware of ourselves, qua subjects, as a physical object among physical objects." What he means by "self-consciousness" is then the capacity to ascribe our representations to ourselves, to describe them as "mine." One of the goals of the present paper is to clarify the relevant differences between Kant's and Cassam's respective presuppositions and vocabulary in discussing the issue of self-consciousness (and self-awareness).

4. *Self and World,* 25. I have slightly altered the quote. Cassam says, "*intuitive* awareness of the self, qua subject." Since the notion of "intuitive awareness" will be explained below, I prefer for now to skip the specification and say just: "awareness." I also write "awareness of oneself" rather than "awareness of the self." On this point, see below, n. 16.
5. *Self and World,* 198.
6. Cassam himself recognizes this proximity. See *Self and World,* 35.
7. This is not a controversial premise. That we think of our experience as being experience of independently existing objects does not mean that we know it to be experience of independently existing objects. Even Bishop Berkeley would have accepted that we think of our experience in this way, although he of course argues that we are deluded in doing so. In his interpretation of Kant's Transcendental Deduction, Strawson has taken great pains to free Kant's argument of this premise, which he took to be too strong. Instead, he attempted to read Kant's transcendental deduction as an anti-skeptical argument starting with the mere assertion of self-consciousness (understood in the minimal sense of self-ascription of representations: we are self-conscious when we ascribe our representations to ourselves) or even more minimally, with the thought of experience as experience (namely, as distinct from what it is experience of); and arguing from there to the necessity of representing objects as independently existing, and finally to the necessity for these objects to fall under categories such as those of substance and causal connection (see *The Bounds of Senses,* 96–108). I think Strawson resisted Kant's premise (our experience is as of independently existing objects) partly because he gave it too strong a sense. He seems to have thought that Kant started from the premise that we know our experience to be experience of objects in the "weighty" sense. Now, eventually Kant does provide an argument to this effect (see the Refutation of Idealism). But it does not constitute the premise of the Deduction.

   Note also that by "experience" I mean what Kant means by this word: empirical intuitions (sensory representations) recognized under concepts. The word is used in the singular because, as Kant states, various perceptions belong to *one* experience (see for instance A110; A176–77/B218–19).
8. Here I am unifying into one step the complex core of the Transcendental Deduction in B, with its two main steps, which concern respectively the categories as conditions for *thinking* objects (§§19–21), and the unity of apperception as a condition for intuiting objects (§26). This is because my only concern here is with elucidating *where* and *how* the role of "I" appears in the proof (§16).
9. Cassam's notions of "intuition" and "intuitive awareness" are inspired from Kant in they have the two features of singularity and immediacy by which Kant characterizes intuition. However, Kant would not call "intuition" consciousness of oneself as a subject, since for him intuitions are representations *of objects,* and this is precisely what, according to him, consciousness of oneself as a subject cannot be. More on this below.
10. See Gareth Evans, "Things without the Mind: A Commentary upon Chapter Two of Strawson's *Individuals,*" in *Collected Papers* (Oxford: Clarendon, 1985), 249–90; Sydney Shoemaker, "Persons and Their Past," in *Identity, Cause and Mind* (Cambridge: Cambridge University Press, 1984), 19–48; Quassim Cassam, *Self and World,* 35–40.
11. This example is inspired from Cassam's own example of perceiving London's Marble Arch or an exact replica of it in Dallas, Texas. See *Self and World,* 41, and the quote referenced below, n. 16.
12. Of course, it is also true that the subject's location is determined by her perceptual information telling her *which* physical objects she is surrounded by. So the determination is mutual. But, as Cassam rightly points out, this is not viciously circular. There needs to be one and the same subject of perceptions for the latter to be interpretable as perceptions of this or rather than that particular object. But conversely, the interpretation depends on the whole set of objects the perceiving

subject takes herself to have encountered in her experiential route. This is precisely what makes the plurality of perceptions parts of one experience (cf. n. 7 above). Kant makes a very similar argument in the Third Analogy: see A213/B260, and below n. 17.

13. See *Self and World,* 48–49. The point was familiar to Berkeley.
14. Note that here Cassam introduces a more specific gloss on the idea of "independently existing object" or "object in the weighty sense" than the mere idea of existence unperceived. The properties of shape, location, and solidity attributed to objects existing independently of our perception of them are *prima facie* empirically given properties. As Cassam's argument progresses, it looks more and more like an elucidation of some important connections between *de facto* features of our experience rather than a transcendental argument in the orthodox sense: an a priori, conceptual analysis of necessary conditions of experience. On this point, see *Self and World,* 51.
15. These issues would be: (1) Kant's conception of space and time as transcendentally ideal (mere representations in us, and as such conditions of possibility of any representation of objects). And (2) the fact that in this context, for Evans/Shoemaker/Cassam "enabling conditions" would be constituted by the subject. What I want to say here about the relationship between Kant's view of self-consciousness and his view of what ESC call "spatio-temporal enabling conditions" can be considered independently of those issues. This is not to say, of course, that they are not of primary importance for Kant.
16. *Self and World,* 40. Cassam is quoting from Kemp Smith's translation. The German says: "Wir sind uns a priori der durchgängigen Identität unserer selbst in Ansehung aller Vorstellungen, die zu unserem Erkenntnis jemals gehören können, bewusst, als einer notwendigen Bedingung der Möglichkeit aller Vorstellungen (weil diese in mir doch nur dadurch etwas vorstellen, daß sie mit allem anderen zu einem Bewußtsein gehören, mithin darin wenigstens müssen verknüpft werden *können*)." Kemp Smith translates "unserer selbst" by "the self," and Cassam follows suit. It would be more accurate to translate "our self." With only a few exceptions, Kant almost always uses "selbst" in this strictly reflexive mode (unserer selbst, ihrer selbst, and so on) rather than as an independent substantive. Kemp Smith almost always uses the substantive "the self." I think this is misleading. Although Kant does coin the even more bizarre expression "*the* I think," he has a keen sense that "selbst" expresses the reflexivity of consciousness for each individual thinker rather than any kind of substantive entity. What he means by "*the* I think" is the universal form of consciousness that, while making reference to objects possible, also makes self-reference possible for each individual thinker.
17. See in particular the Third Analogy, A213/B260. I shall say more about this point in part V of this paper.
18. See Ludwig Wittgenstein, *The Blue and Brow Books, Preliminary Studies for the* Philosophical Investigations (Oxford: Blackwell, 1975), 66–70. *Self and World,* 60.
19. Wittgenstein, *Blue Book,* 66–67.
20. See Sydney Shoemaker, "Self-Reference and Self-Awareness," in the *Journal of Philosophy* 65, 19 (1968): 555–67; reprinted in Quassim Cassam (ed.), *Self-Knowledge* (Oxford University Press, 1994), 80–93, esp. 81–85. Gareth Evans, "Self-Identification," in *The Varieties of Reference,* ed. John McDowell (Oxford University Press, 1982), 204–57, esp. 215 ff.
21. There are other features differentiating the use of demonstrative judgments and I-thoughts. See Shoemaker, "Self-Reference," 83–85. I am focusing on the no-temporal-tracking because it plays an important role in Cassam's discussion and because, as we shall see, it has important counterparts in Kant's view of self-consciousness.
22. Cassam calls this the "incompatibility objection" to his materialist conception of self-consciousness. See *Self and World,* 68–71.
23. As Cassam recognizes, this is leaving aside issues of quasi-memory, brain transplant, and similar thought experiments. In other words, this is taking into account the way in the world as we know it states of consciousness are related to a living body.
24. Cassam himself notes the proximity between his view and Merleau-Ponty's view. See *Self and World,* 72. However, he suggests that Merleau-Ponty relapses into a form of dualism of subject and object in distinguishing "phenomenal body" and "objective body." Cassam softens his suspicion of dualism, however, when he writes (see *Self and World,* n. 36): "It is not entirely clear, how-

ever, whether the distinction between 'objective' and 'phenomenal' body is supposed to be a distinction between different entities or between different views of the same entity. The latter interpretation is suggested by Merleau-Ponty." As I suggested above, Cassam's own view suffers from a lack of clarity in his use of "qua" and "as" in "qua subject, as object." If he did clarify his use he would have to see that his view amounts to distinguishing two kinds of awareness of oneself: qua subject and qua object, both of which are awareness of *the very same entity,* which we are aware of "as a physical thing among physical things." Now this is just Merleau-Ponty's claim.

25. See B135.
26. See Hume, *A Treatise of Human Nature,* ed. L. A. Selby-Bigge and P. H. Nidditch (Oxford: Clarendon, 1985), Book I, section 6, *Of Personal Identity,* 251–63.
27. The case of perceptual states (objects of our "inner experience") is nevertheless like that of no other object. They are not objects in the weighty sense, and they do not call for tracking through time since they do not persist (it would make no sense to ask whether the perception I have now is the very same, numerically identical perception I had yesterday). Nevertheless, by insisting, in the Refutation of Idealism, that the temporal order of objects of inner sense is determined only against the background of an experience of the permanent that can be an object only of outer sense, Kant does treat experiental states *as objects*—albeit not objects in the weighty sense.
28. See above, 289–90.
29. I don't mean he could have said it in just these terms. His theory of self-consciousness, whether empirical or transcendental, is not related to a theory of reference in the modern sense. Nevertheless, we saw that we do find, in the case of transcendental self-consciousness, characterizations that strikingly map ESC's two referential features proper to the use of "I" as subject: no descriptive identification and thus, no misidentification (In Kant's terms: no identification *as an object*); no temporal tracking (in Kant's terms: it is the same to say that time is in me or that I remain identical through time). We find no such mapping in anything he says about bodily self-consciousness.
30. See *Self and World,* 158 ff.
31. *Self and World,* 162.
32. On this point, see Jonathan Lear, *Open Minded* (Cambridge: Harvard University Press, 2000), especially chapters 5 and 12.
33. See *Self and World,* 50–51. And see also what Cassam says of the "three grades of apparent presence in the world," in *Self and World,* 58.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Sensory Consciousness in Kant and Sellars

John McDowell
University of Pittsburgh

I.

If we understood Kant's theoretical philosophy, we would understand how to think about the limits of intelligibility—the bounds of sense, in one interpretation of P. F. Strawson's intentionally ambiguous title.[1] That would put us within reach of an insight only glimpsed, I think, by Kant himself: that those limits are not well conceived as a boundary, enclosing a territory by leaving other territory outside it. But we can approach that connection with the theme of boundaries and limits only by dealing with the details of the first *Critique,* and some of that is all I will be doing here.

II.

Sensibility is one of the "two stems of human knowledge" that Kant distinguishes in the Introduction to the *Critique* (A15/B29), in an image he reverts to near the end of the work (A835/B863).[2] In the first passage, the other stem is understanding; in the second, it is "the whole higher faculty of knowledge."

As Kant begins to explain how sensibility and understanding are related, it can seem that sensibility is supposed to account, by itself, for *intuitions*, while understanding accounts for *concepts*, which are, on this picture, simply separate from

intuitions. As he proceeds, however, it emerges that in his view the spontaneous cognitive faculty that, in the guise of the understanding, is responsible for concepts also enters into the constitution of intuitions. That is how things are in his dominant conception of intuitions; this is explicit by the time we reach the Metaphysical Deduction. (See A79/B104–5.)

But in holding that the higher faculty is partly responsible for intuitions, Kant is not dislodged from crediting them to sensibility as well, in that—in a standard Kantian metaphor—sensibility provides their material, though their form is due to the higher faculty. We might say he conceives an intuition—that through which a cognition is immediately related to an object (see A19/B33)—as *sensory consciousness of an object*.

I want to compare two answers to this question: in a Kantian view, how should we conceive the *sensory* character of sensory consciousness of objects?

III.

Though it is a stem of human knowledge, Kant is firm that sensibility alone does not yield cognition. Cognition requires thought, and sensibility is not a capacity to think. "[T]hrough mere intuition," he says, "nothing at all is thought, and the fact that this affection of sensibility is in me does not . . . amount to a relation of any such representation to an object" (A253/B309).[3] The reason "it is . . . correct to say that the senses do not err" is not that "they always judge rightly" but that "they do not judge at all" (A293/B350).

Given what I said about Kant's dominant conception of intuitions, it may be surprising that in the first of these passages he says *intuition* is insufficient for thought, and hence for (cognitive) relation to an object. But this is consistent with his holding, as I claimed, that the higher faculty enters into the constitution of intuitions. That need not imply—what would contradict what he says here—that intuitions as such involve the understanding, the capacity to think. If there is thought in an intuition, its content must have been articulated, analyzed into contents for determinate conceptual capacities. And the sheer occurrence of intuitions does not ensure that such analysis has been effected. We can say this even while we insist that the higher faculty is responsible for their form. We must suppose it is not in its guise as the understanding, the faculty of concepts, that the higher faculty does the informing that makes intuitions what they are. If, with Wilfrid Sellars, we connect intentionality with being conceptual,[4] we should say that apart from that work of articulation intuitions have at most proto-intentionality. An intuition as such is, as Kant says (A20/B34), of an appearance, by which he means, in this context, something (conceptually) undetermined—even though the higher faculty enters into the constitution of the intuition whose object it is.

But that is only a complication in the interpretation of the doctrine that sensibility alone does not provide for cognition.

A thought on these lines is operative in Sellars's attack on empiricist forms of the Myth of the Given. Sellars urges that if the deliverances of the senses are independent of conceptual capacities,[5] then receiving those deliverances cannot be knowing anything, and cannot ground the knowing of anything else, as traditional empiricism makes out that it does.

The *locus classicus* for Sellars's attack on the Given is "Empiricism and the Philosophy of Mind."[6] There he does not invoke a Kantian provenance for his campaign. But elsewhere he stresses its Kantian inspiration. Here is a characteristic statement: "My thesis will be that sense is a cognitive faculty only in the sense that it makes knowledge possible and is an essential element in knowledge, and that of itself it knows nothing. It is a necessary condition of the intentional order, but does not of itself belong to this order. This thesis was first advanced by Kant, but can, fortunately, be separated from other, less attractive, features of the Kantian system."[7]

IV.

Kant introduces sensibility as "the capacity (receptivity) for receiving representations through the mode in which we are affected by objects" (A19/B33). He explains sensation (*Empfindung*) as "the effect of an object upon the faculty of representation, in so far as we are affected by it" (A19–20/B34). In the taxonomy of kinds of representation (*Vorstellung*) near the beginning of the Transcendental Dialectic (the *Stufenleiter*: A320/B376–7), sensation figures as "a perception [that is, a representation with consciousness] which relates solely to the subject as a modification of its state."

Now Sellars has a distinctive interpretation for this conception of sensibility and sensation.

As Sellars understands the Kantian position, sensibility yields sensations, and sensations are inner episodes (or states)[8] *exhaustively* characterizable by descriptions that relate them solely to the subject as modifications of its state. They do not have intentional directedness. Sellars insists that "of" in, say, "a sensation of red" must not be assimilated to "of" in, say, "a thought of a man."[9] (It is more like "of" in "a sensation of pain.") And for Sellars an episode (or state) that is a sensation is *completely* describable—so far as concerns what it is for consciousness—by descriptions that use "of" only in that non-intentional way. As Sellars sees things, this is just a way of expressing the fundamental Kantian insight, that sensibility alone does not yield cognition, because it does not provide for thought.[10]

One might wonder whether, given this conception of sensations, it is appropriate to call them "representations," as Sellars does when he expounds Kant in *Science and Metaphysics*. But Kant himself classifies sensations as one of the varieties of representation in the *Stufenleiter*, even though he says they are perceptions that relate solely to the subject as modifications of its state. I shall come back to this.

Sellars holds that, in contrast with sensations, perceptual episodes and states exemplify intentionality. And he provides for this by maintaining that—to put the thought in Kantian terms—the understanding is involved in their constitution.

In "Empiricism and the Philosophy of Mind," he introduces a conception of a perceptual experience "as, so to speak, making an assertion or claim."[11] Kant might have invoked judgment in offering a parallel image. But Sellars wants to express a Kantian thought by exploiting a view of his own: that the understanding acquires first actuality, the potential for the second actuality that consists in intellectual acts, when a subject is initiated into language. Later in the essay, he cashes out that "so to speak"—delivering on what he earlier acknowledged as a promissory note—by suggesting that thought about inner episodes with conceptual content uses episodes of overt speech as a model. The intentionality of unspoken thoughts is to be understood by analogical extension from the directedness at their subject matter of acts we can conceive as thinking-out-loud.[12] That is a picture of thought in general, but Sellars notes that it entitles him to the thesis he signaled as promissory when he was characterizing experiences in particular.[13] For Sellars, the intentionality of experiences is a case of the intentionality of acts of thinking.

In contexts in which he is aligning himself more directly with Kant, Sellars shifts the focus from experiences in that sense, items with propositional content, to intuitions. On Sellars's interpretation, intuitions, in Kant's dominant sense, have contents expressible by phrases of the form "this such."[14] Such a content is not the content of a claim. But it exemplifies intentionality, and it comes within the scope of Sellars's Kantian insistence that intentionality is not on the scene unless the understanding is. The intentional directedness of an intuition at reality—its being an intuition *of*, say, a pink cube—is to be explained by analogical extension from the way in which, given the presence of a demonstrative phrase, say "this pink cube," in a form of words uttered in a certain context, anyone who understands the utterance can identify a certain object as what the utterance is about. As before, this gives a specific shape, suitable for philosophy after the linguistic turn, to a Kantian thought about intentionality, now applied to intuitions in particular: that their intentionality is to be understood in terms of their being partly constituted by the spontaneous cognitive power that, in its guise as the understanding, is the faculty of concepts.

For Sellars, then, when one enjoys experiences, conceived as having propositional content, one engages in thinkings, and intuitions have contents that can be constituents of what is thought in thinkings about objects present to one in experience. But experiences and intuitions are not *just* thinkings (in a sense in which thinkings can have less than propositional content, so that intuitions too can count as thinkings). The immediate relation to an object that a cognition acquires through an intuition is a matter of the object's being—in some sense—*sensibly* present to the knowing subject. And when an experience, in the sense Sellars exploits in "Empiricism and the Philosophy of Mind," is a cognition, the state of affairs thanks to whose obtaining the experience is veridical is—in some sense—

sensibly present to the knowing subject. Experiences and intuitions are not just thinkings but also shapings of sensory consciousness.

Here we come to what is distinctive about Sellars's interpretation of the fundamental Kantian insight, that sensibility alone does not yield cognition. For Sellars, sensory consciousness in a strict sense, the primary product of sensibility, is populated by sensations, and sensations are exhaustively describable in a way that relates them solely to the subject as modifications of its state. So, as I noted, they lack intentionality, and they must be distinct from anything that has intentionality. The result is that Sellars has to conceive experiences and intuitions as *composites*: they must comprise *both* items whose character as thinkings provides for intentionality *and* items whose character as sensations provides for placement in sensory consciousness. A visual intuition, for instance, is a thinking of an object as a this such *accompanied*, in a special way (I shall come back to this), by visual sensations. The sense in which an intuition is not just a thinking but also a shaping of sensory consciousness is that part of the composite that is an intuition is a thinking and another part is a shaping of sensory consciousness.

My question was this: in a Kantian position, how should we conceive the *sensory* character of sensory consciousness of objects? Sellars's answer is that, while sensory consciousness of objects is *of objects* by virtue of the presence of thinkings in the composite that philosophical reflection reveals it to be, it is *sensory* by virtue of the presence of sensations in that composite.

For Sellars, as I said, intuitions are thinkings—in a sense in which thinkings can have less than whole propositions as their contents—accompanied in a special way by sensations. The mode of accompaniment is a topic of some difficulty. In any plausible elaboration of a view on these lines, the thinkings that are one element in these composites would be *occasioned* by the sensations that are the other element. But this occasioning cannot be a causal connection of the sort in which it is a mere contingency that some specific cause has some specific effect—as if the sensations that occasion thinkings of things as green might just as well have occasioned thinkings of things as red. The nature of the sensations that constitute one element in an intuition must be more intimately connected than that with the intentional content of the thinking that is its other element. It is presumably at least in part with a view to capturing this intimate connection that Sellars, in *Science and Metaphysics*, represents the conceptual elements in perceptual consciousness as *guided* (not merely caused) by the sensational elements.[15]

Elsewhere he tries to capture the unity of the composite items he takes experiences to be with this remark: "visual perception itself is not just a conceptualizing of colored objects within visual range—a 'thinking about' colored objects in a certain context—but, in a sense most difficult to analyze, a *thinking in color* about colored objects."[16]

Sellars's most sophisticated treatment of the relation between the conceptual and sensational elements in experience is in "The Role of the Imagination in Kant's Theory of Experience."[17] There he offers a reading of Kant on the productive imagination—

a power that belongs both to sensibility and to understanding. The essential point in Sellars's reading is that the productive imagination, presented with a sensory manifold in which an object is made available to intuition, performs *two* tasks. As a power of the understanding, it generates a conceptual representation, partly expressible by, say, "this red pyramid facing me edgewise." And as a power to form images, it constructs out of materials contributed by sense (and imagination) a corresponding "image-model," which in the same case is "a point-of-viewish image of oneself confronting a red pyramid facing one edgewise."[18] Each task influences the other. Importing the metaphor from *Science and Metaphysics*, we might say the image-model guides the conceptual representation. But the conceptual representation provides a "recipe" for the construction of the image-model—or better, series of image-models, varying in their perspectival ("point-of-viewish") character as the actual or envisaged relative positions of the perceiver and the object change. Raw sensations, deliverances of sensibility independently of the higher faculty, presumably constrain the possibilities for image-models and so for the conceptual activity that stands in this complex relation to image-models. But what guides conceptual goings-on is not a mere aggregate of raw sensations but the result of a construction, with sensations included in its material, according to a recipe supplied by the conceptual goings-on themselves. So in this picture the higher faculty enters into the constitution of what does the guiding as well as that of what is guided by it.[19]

V.

The sensational element in visual intuitions would need to include, at least, sensations of *color*. In the terms introduced in Sellars's reading of Kant on the productive imagination, a sensation of translucent pink would need to be included in the material for the image-model that combines with a conceptual representation to constitute an intuition of a translucent pink cube.

The character of the sensational element, so far as concerns its capacity to guide the conceptual element in the intuition in respect of the color the cube is represented as having, would need to be more determinate than could be captured by describing it as a sensation of translucent pink. But that would need to be a correct, though incompletely determinate, description of it.

For Sellars, then, color concepts (in some sense) must characterize the *sensational* component of visual intuitions. And this role for color concepts is in one way fundamental. In Sellars's view, it is only because color enters into the phenomenal character of visual sensations that color figures in thoughts about perceptible objects.

This may seem surprising, because Sellars holds that the color concepts that characterize color sensations are derivative from concepts of colors as apparent properties of perceptible objects.[20] The present point is that he combines this, per-

fectly consistently, with holding that the primary place in reality for the phenomena of color is at the level of sensation.[21]

Now it is a striking phenomenological fact that in visual sensory consciousness color is inextricably connected with *shape*. The translucent pink, in the sensory consciousness of translucent pink that figures in seeing a translucent pink cube, is a *volume* of translucent pink with a perspectivally presented *cubic* shape. (Something similar goes for surface colors.) So in the Sellarsian picture color naturally brings shape with it into the sensational part of the truth about visual intuitions. *Being of something cubic* has to be recognized as a manner of *sensing*.

Here, too, the spatially sensational element in an intuition would need to have more determinacy than such a description captures. It would need to have features sufficient to make intelligible its guiding the conceptual representation that is the other element in the intuition, not just in the intuition's representing the seemingly seen object as cubic, but also in respect of, for instance, how the seemingly seen cube is represented as oriented to the viewer. But the unspecific characterization, "sensation of something cubic," will do to bring out the feature of Sellars's thinking I want to focus on here.[22]

Kant holds that space is the form of our outer sensibility. As Sellars notes, it becomes increasingly clear, as we progress through the *Critique*, that Kant's thought concerns an order that characterizes the objects of our outer *intuitions*, in the sense in which intuitions are partly constituted by the higher faculty.[23]

But Sellars thinks that in a properly Kantian picture, manners of sensing would have to include being of something cubic. And he insists that it would be a confusion to equate this spatial specificity of *sensations* with the spatial specificity exemplified in an *intuition's* being, say, of something cubic. That would be conflating the non-intentional "of" in descriptions of sensations with the intentional "of" in descriptions of thinkings, which include the intentionality-involving components of intuitions.

In Sellars's view, then, Kant needs a spatiality that informs the *sensational* element in our outer intuition. It must be distinct from the spatiality that informs the intentional content of our outer intuition. But this latter spatiality is the only spatiality Kant considers. Sellars thinks Kant could have explained a purely sensational spatiality by analogical extension from the spatiality of our outer intuition. But Kant does not do that. He does not equip himself with a purely sensational spatiality. In Sellars's view, that implies that he contrives, in effect, to miss the very point of the idea he is trying to express when he talks of space as a form of *sense*. As Kant develops it, Sellars says, "the idea that Space is the form of outer sense is incoherent."[24]

To the extent that the spatiality of the sensational element in intuitions can be equated with the spatiality of image-models, Sellars's reading of Kant on the productive imagination puts him in a position to tone down this criticism. As we saw, Sellars conceives image-models as constructed according to recipes supplied by conceptual activity. There can be nothing wrong with their having formal properties, including spatial organization, that are intelligible only in terms of an involvement

on the part of the higher faculty. But even in this sophisticated version of Sellars's picture, it is natural to think there must also be a spatial ordering at the level of the raw sensations that serve as material for image-models. How could there be, say, a blue spot at the apex of an imaged pyramid, presented in an image-model with the apex upward, if a sensation of blue were not related, in a purely sensational space, by an analogue of the "above" relation to sensations of color that constitute the material for the parts of the image-model that present the lower parts of the imaged pyramid? So it still seems that a Kantian view, as Sellars understands it, requires a purely sensational spatiality. And Sellars still needs to accuse Kant of failing to appreciate what his own thinking requires.

VI.

But what is the alternative? (To echo a move often made by Sellars himself.)[25]

Our sensibility should be our version of something non-rational animals also have. What functioning sense-organs yield for a non-rational animal is not items exhaustively describable in a way that relates them solely to the animal as modifications of its state. Sensibility provides an animal with representations—awarenesses in some sense—of features of its environment. As such, the products of sensibility are characterizable not only in a way that relates them to the subject as modifications of its state, but also in a way that relates them to what they are representations of. It is true that for Kant, since non-rational animals do not have a spontaneous higher faculty of knowledge, their sensory representations can be ordered only by association, and so cannot amount to cognitions in the demanding interpretation he places on that idea.[26] Thanks to the higher faculty that distinguishes us from non-rational animals, our sensory representations can have the status of cognitions, as theirs cannot. But the higher faculty is not needed for what sensibility yields to be representations. It is by virtue of the higher faculty that the representations we receive through sensibility are cognitions, but not that they are representations *überhaupt*.

This makes it open to question how faithful to Kant Sellars is in his understanding of what is yielded by sensibility as such.

In Sellars's view, which he takes to be Kant's, the whole truth about an item that is a sensation is captured by a characterization that relates it solely to the subject as a modification of its state. But Kant's explanations of the idea of sensation are compatible with the following different possibility.

Start with a representation acquired through sensibility. It may or may not be one that, because the higher faculty is operative in its constitution, has the status of a cognition—a perceiving that something is the case—or of something that makes cognition possible by putting the subject in immediate relation to an object—an intuition. In any case, if we characterize it as the representation it is, we do not relate it solely to the subject as a modification of its state.

But we can redescribe *that same item* in a way that abstracts from its being a representation, which, if it is a cognition or cognition-enabler, is its intentionality. And when we abstract from its representational character, we describe it—that very item —as the effect of an object on the faculty of representation, insofar as the subject is affected by the object: that is, as a sensation (A19–20/B34). Suppose we started with a cognition or cognition-enabler. Then what the abstraction enables us to describe as a sensation is not something that *accompanies* a thinking, a possessor of intentionality. It *is* a thinking, but it comes into view as the sensation it also is when we describe it in a way that abstracts from its intentionality.

In this picture, what provides for an intuition, say, to belong to sensory consciousness is not apportioned to an item other than one whose characteristics provide for the intuition to be of an object, as in Sellars's picture. We can still say sensory consciousness contains sensations. But the intentionality of intuitions is accounted for by the fact that in intuitions *sensory consciousness itself* is informed by the higher faculty. The thinkings that provide for the intentionality of perceptual cognitions are not *guided* by sensory consciousness, as it were from without. They *are* sensory consciousness, suitably informed.

There is no backsliding here from what I described as the fundamental Kantian insight, that sensibility alone does not yield cognition.[27] Without the higher faculty, sensibility can yield at most the representations, merely associatively ordered and so not amounting to cognitions, that Kant allows to non-rational animals. If we are asked to contemplate an affection of an animal's sensibility through which it receives a representation, but we are not told whether it is a rational animal, we cannot tell whether what we are contemplating—the representation received through the mode in which the subject is affected—is even a candidate for being a cognition, or something that enables cognition in the way intuitions do. If it is a cognition or cognition-enabler, that is because its being what it is is not provided for by sensibility alone, but depends on its being informed by the higher faculty. So the fundamental Kantian insight is respected.

In describing an item that is a representation, and perhaps a cognition, as the sensation it may also be, we abstract from that about it in virtue of which it is the representation it is. Perhaps that can help toward making it intelligible—more intelligible, anyway, than it can be in Sellars's reading—that sensations figure as representations in the *Stufenleiter*.

VII.

Consider an intuition of a translucent pink cube. How might we redescribe it so as to abstract from its intentionality and display it as a case of sensation, thus placing it in sensory consciousness?

Here is a possibility: it is an instance of the kind of affection of sensibility that is characteristic of intuitions of translucent pink cubes.

That may seem a cheat. But there can be nothing wrong with specifying sensational character indirectly, exploiting what we need to abstract from in order to describe an item as a mere modification of the subject's state.

To stay with such indirect specifications of sensational character is to diverge from Sellars. Not that Sellars disputes that such specifications are possible. But he thinks he is obliged to devise ways of describing sensations directly, not just in terms of the kinds of perception they figure in.[28] (He does this by introducing analogical uses of concepts of the proper and common sensibles, modeled on their uses for properties seemingly possessed by perceptible objects.) However, in the context of the alternative interpretation I am putting forward for a Kantian conception of sensory consciousness, there is no such obligation. On this view the sensory aspect of perceptual consciousness of objects is not secured by items that, by virtue of autonomous sensational properties, guide other elements in perceptions into having certain intentional contents. The relevant items *are* possessors of intentional content, but considered under an abstraction from their intentionality. So the indirect style of specification for their sensational character is perfectly legitimate.

But we can exploit the idea of abstraction in a different way. As before, we start with an intuition of a translucent pink cube. But we aim to redescribe it as a sensation by omitting from that specification anything whose presence reflects what we must abstract from in order to describe the item solely as a modification of its subject's state.

Obviously we may no longer describe it as an intuition. More interestingly, since for Kant (in the doctrine Sellars complains about) spatiality informs the intentionality of outer intuition, we must omit "a . . . cube" from the specification of what the item is of. (The article goes with the count noun.) But it is not so clear that "translucent pink" must go. If it does not, we are left with this: "a sensation of translucent pink."

On the surface, this matches Sellars's usual form for describing sensations of color. However, according to Sellars "of" in "an intuition of a translucent pink cube" expresses intentionality, whereas "of" in "a sensation of translucent pink" does not. But if we reach "of translucent pink" by dropping "a . . . cube" from "of a translucent pink cube" in what was a specification of the intentional content of an intuition, why should "of" change its character? Why not suppose this form for describing sensations of color exploits—in a vestigial form—the apparatus of intentionality?

Can "a sensation of translucent pink" describe a mere modification of a subject's state even if "of" signals intentionality in a vestigial form? There is no obvious reason why not. The point is precisely that the intentionality is vestigial. If spatiality is essential for intentional directedness at outer reality, then we abstract from outward directedness when we omit the specification of shape from the description of an intuition we began with. Why not suppose the result describes the item as a mere affection of sensibility?

It is in intuitions, with their non-vestigial intentionality, that we should locate the inextricable connection of color with shape in visual consciousness. We reach these specifications of color sensations by abstraction from specifications of intuitions in whose content we can acknowledge that color and shape are indissolubly bound together. If we say that *qua* sensation the item we are concerned with is of color and not of shape, we do not imply that we have given a complete characterization of an item in whose nature being of color is somehow separated from being of shape.

That sensations of color are mere affections of sensibility is a natural thought for Kant, given that he thinks the true home in reality of colors, which falsely present themselves as qualities of perceptible objects, is in these configurations of subjectivity. (See, e.g., B44.) Sellars has a version of this characteristically eighteenth-century thought. But even if we suppose—as I think we should—that the colors we seemingly see really are, in the best cases, qualities of the objects we seemingly see to have them, we can still find a point in the idea that sensations of color as such—that is, characterized with the abstraction that makes "of" only vestigially indicative of intentionality—are mere affections of sensibility. Once we lift the abstraction, they come back into view as putative cognitions, or enablers of cognition, of objects with their color qualities, which, on this account, the objects really have if the putative cognitions are cognitions. But the descriptions yielded by the abstraction omit the context that would be needed if the colors they mention were to be figuring in them as apparent qualities of external objects.

In this picture, spatial specificity figures in the complete truth about items that are visual sensations, but not in descriptions of their character as sensations. There is no need for the purely sensational spatiality whose absence from Kant Sellars complains about. And there is another respect in which this picture promises to line up more closely with Kant than Sellars can manage. In this picture, the idea of magnitude gets a grip on sensations, as such, only in the guise of intensive magnitude. (See the Anticipations of Perception.) For Sellars, the presence of that thought in Kant must be a mark of the same defect, in Kant's grasp of what his thinking requires, that Sellars finds in Kant's failure to provide for a purely sensational spatiality.

I have been suggesting that visual sensations in the sense Kant explains are not, *qua* sensations, of shape. This does not imply that access to spatial properties is not sensory. This restriction in what sensations as such can be said to be of is consistent with insisting that the *whole* content of visual experience, including what it reveals about spatial properties, is a matter of informing, by capacities that belong to the higher faculty, *of sensory consciousness*. An intuition of a translucent pink cube, with all its content, is an affection of its subject's sensibility. It is just that in order to describe it in a way that relates it *only* to its subject, as a modification of the subject's state, we have to omit its being of something cubic, since that characterizes outwardly directed intentionality.

VIII.

In "Empiricism and the Philosophy of Mind," as I said, Sellars puts forward a conception of experiences on which they contain propositional claims. I used to take that to be a version of the thought I have attributed to Kant—that experience is sensory consciousness informed by the higher faculty.[29] That made it an urgent question for me why Sellars thinks he must *also* invoke sensations, conceived as a further element in experiences over and above their containing claims.

An implication of what I have urged here is that my question had a false presupposition. Sellars comes close to Kant in saying experiences contain claims. But all he can make of that idea is that experiences are composites, with claim-containing items accounting for their intentionality and sensations accounting for their sensory character. And this reflects his not arriving at what I take to be the authentically Kantian view. Sellars does not envisage claim-containing occurrences that are themselves shapings of sensory consciousness.

Sellars thinks a phenomenologically acute consideration of experiences in which one seems to see the red and triangular facing side of an object discloses a "descriptive core" consisting in "the fact that *something* in *some* way red and triangular is in *some* way present to the perceiver *other than as thought of*."[30]

It is implicit here that there are two kinds of presence: presence to thought and presence to sense. Sellars's talk of presence otherwise than as thought of distinguishes the sensational aspect of experiencing from the thinking that is its other aspect. He writes: "A scholastic might say that in perception (and ostensible perception) the relevant proper and common sensibles have *being for sense* as well as *being for thought*. Thus, when I see or ostensibly see something to be a pink ice cube, a pink cube has not only being for thought but also being for sense. The *somehow* presence of the pink cube could then be referred to as its being sensed."[31]

In this formulation, it is the *same* items that have being for sense and being for thought. This is not an identification of being for sense with being for thought. For Sellars, being for thought is a matter of intentionality, and being for sense is not. But he takes quite seriously the idea that what has being for thought, in the intentional component of an ostensible seeing of a pink cube, is the *something somehow* pink and cubic that he thinks is present to the perceiver otherwise than as thought of, the "descriptive core" of the experience.[32] On this view the conceptual element in perception misconstrues sensed volumes of color as occupants of public space endowed with sensible properties. What has being for thought in experience is, as in the scholastic formulation, the same thing that has being for sense.

It can seem unquestionable that whenever one ostensibly sees a pink cube, even if one's experience is a merely ostensible seeing, there is an actual sensory presence to one, something that cannot be accommodated by acknowledging that one is *thinking*, in whatever way, of a pink cube. That is what Sellars is supposing when he takes it to be clear that over and above the intentionality in an ostensible seeing

of a pink cube, there is sensing in the of-a-pink-cube manner—that *something somehow* pink and cubic is present to one *otherwise than as thought of*, in no matter what mode of thought. But this idea loses its seeming compulsoriness if thinkings of a pink cube can include items that are sensory consciousness informed by the higher faculty.

With this different conception of the possibilities for acts of thought, we can say that when one sees a pink cube, the pink cube has a being for thought that *is* being for sense. When one merely seems to see a pink cube, there merely seems to be an instance of that kind of being for thought. That is, there merely seems to be an instance of the being for sense that that kind of being for thought is.

Not that there merely seems to be visual *Empfindung*. By abstracting from intentionality, we can redescribe a merely ostensible seeing, no less than an actual seeing, as a mere affection of its subject's sensibility. *Qua* mere affection of sensibility, a merely ostensible seeing can be indistinguishable from the affection of sensibility there would have been if there had been an actual seeing. That leaves it unmysterious that there should seem to be an instance of the being for thought that is being for sense. That is the only kind of presence we need to countenance. Merely ostensible seeings seem—merely seem—to be instances of that kind of presence. That suffices to accommodate their phenomenology. There is no need for a kind of presence of which they are actual instances.

In this picture, there is only one task for the productive imagination where Sellars's reading has two. The productive imagination generates representations with conceptual content partly expressible by phrases of the form "this such." So far, this matches Sellars's reading. But there is no extra task of effecting constructions in sensibility, Sellars's image-models. The conceptual representation partly expressible by, say, "this pink cube" already belongs to sensibility no less than to the understanding. An episode or state with content expressible like that is itself a shaping of sensory consciousness. What the productive imagination generates is a unity involving both sensibility and understanding—not an amalgam, however intimately bound together, of components that belong severally to sensibility and understanding.

IX.

Why is Sellars convinced that Kantian thinking must be understood his way? I shall end by mentioning some explanations. Each would need a great deal of discussion.

First, Sellars is influenced by a disputable interpretation of the idea, in itself plausible, that to have its objective purport conceptual activity must be constrained from outside itself. This part of his thinking is encapsulated in the following passage: "it is only if Kant distinguishes the radically non-conceptual character of sense from the conceptual character of the synthesis of apprehension in intuition . . . and,

accordingly, the *receptivity* of sense from the *guidedness* of intuition that he can avoid the dialectic which leads from Hegel's *Phenomenology* to nineteenth-century idealism."[33]

Second, Sellars's thought about perception must be understood in the context of his project of a stereoscopic vision, combining the scientific and the manifest images of man-in-the-world. Sellars thinks due respect for the scientific image requires us to displace colors from their manifest-image status as real qualities of external objects. His conception of the sensational aspect of experience is, in part, a concession, by way of compensation, to the phenomenological basis for the manifest-image conception of colors. (He envisages an ultimate integration of sensation into the scientific image, conceptually enriched as needed.)[34]

As a ground for thinking the philosophy of perception must take the shape Sellars gives it, and for reading Kant as adumbrating a view on those lines, this stands or falls with the project of a stereoscopic vision. That is a large issue. But as I have already indicated, I see no good reason to say external objects are not colored. And I add: not just when we delineate the manifest image, but when we say how things really are. This does not deny science the respect it is due.[35]

As I noted, Sellars's attitude toward the manifest-image conception of colors matches something in Kant. But that does not justify reading Kant as Sellars does. We can bypass questions about secondary qualities and still see a point in conceiving experience as sensory consciousness informed by the higher faculty. We do Kant better service, not by denying him that conception, on the ground that the result would underwrite the view he takes of secondary qualities, but by relieving him of that view, on the ground that it has no basis apart from a misconstrual of what science can teach us.

Third, it is plausible that Sellars's thinking is shaped by a dualism of rationality and animal nature. That would account for the absence, from his inventory of possibilities, of the idea that the higher faculty—what distinguishes us from other animals—might inform the deliverances of our sensibility, a capacity we have by virtue of being, simply, animals. But one great beauty of the position I am representing as authentically Kantian is its immunity to such dualisms. It exemplifies a frame of mind in which they are seen as mere prejudice.

Fourth, Sellars has a conception of thought's bearing on objects—as we can put it so as to leave everything open—that would imply that no idea of being for *thought* could accommodate the *presence* to us that characterizes the phenomenology of our perceptual experience when we see something, and that seems to characterize it when we seem to see something. It would make no difference if we singled out a kind of thought supposedly distinctive of ostensible seeing. For Sellars, thinking has its subject matter in the mode of *signifying*, and he holds that signifying must not be understood in relational terms.[36] But a genuine *presence* of an object to a subject would be a relation between the object and the subject. So for Sellars, it could not be captured by any idea of being for *thought*. I believe this reflects a mistake on Sellars's part. But that is a topic for a different paper.[37]

NOTES

An ancestor of this paper was delivered to a Kant conference called "Thinking about Boundaries and Limits," held in Kirkenes, Norway, in June 2006 under the auspices of the Barents Institute and the Norwegian Kant Society, to both of which institutions I am grateful. Thanks to James Conant for help and encouragement.

1. P. F. Strawson, *The Bounds of Sense* (London: Methuen, 1966).
2. *Critique of Pure Reason*, trans. Norman Kemp Smith (London: Macmillan, 1929).
3. Kemp Smith inserts "[by itself]" where I have marked an ellipsis. This does not distort the thought, but the addition seems needless.
4. See Sellars's *Science and Metaphysics: Variations on Kantian Themes* (London: Routledge, 1967; reissued Atascadero, Calif.: Ridgeview, 1992), 23: "the intentional is that which belongs to the conceptual order."
5. That is, of the higher faculty in the guise of the understanding. At *Science and Metaphysics*, 4–7, Sellars attributes to Kant a conception of intuitions according to which the capacities operative in them are only proto-conceptual, and this could be taken as an acknowledgment of the complication I have just been discussing. But the complication does not figure in the version of Kantian thinking that Sellars himself endorses. Nothing in my paper will turn on this, and I shall ignore it from now on.
6. In Sellars's collection *Science, Perception and Reality* (London: Routledge, 1963; reissued Atascadero, Calif.: Ridgeview, 1991).
7. This is from "Being and Being Known," in *Science, Perception and Reality*, at 46. In *Science and Metaphysics*, Sellars deals with the main themes of his own philosophy through a reading of Kant.
8. In "Empiricism and the Philosophy of Mind," Sellars focuses on episodes. This is because his attention is on a certain reading of Ryle. But his concern is with vindicating a non-dispositional inner in general; states that cannot be reduced to dispositions should be just as important to him as episodes.
9. See, e.g., part V of "Empiricism and the Philosophy of Mind," 154–56 in *Science, Perception and Reality*; compare the passage I cited from "Being and Being Known."
10. See the excellent treatment of Sellars on sensory consciousness in chapter 8 of Willem A. deVries, *Wilfrid Sellars* (Chesham, Bucks: Acumen, 2005).
11. §16, 144 in *Science, Perception and Reality*.
12. The first phase of the "myth of Jones": part XV of "Empiricism and the Philosophy of Mind," 186–89 in *Science, Perception and Reality*.
13. §60, 190 in *Science, Perception and Reality*.
14. In his own voice, Sellars sometimes calls these items "takings." See, e.g., "Some Reflections on Perceptual Consciousness," reprinted in the very useful collection of Sellars's writings relating to Kant (edited, with a substantial introduction, by Jeffrey Sicha), *Kant's Transcendental Metaphysics* (Atascadero, Calif.: Ridgeview, 2002), at 434–35. For intuitions as having content of the form "this such," see, e.g., chapter 1 of *Science and Metaphysics*.
15. See, e.g. 16, 29.
16. "The Structure of Knowledge," in Hector-Neri Castañeda, ed., *Action, Knowledge and Reality: Studies in Honor of Wilfrid Sellars* (New York: Bobbs-Merrill, 1975), 305.
17. Reprinted in *Kant's Transcendental Metaphysics*.
18. *Kant's Transcendental Metaphysics*, 426.
19. I have imported the metaphor of guidance from *Science and Metaphysics* so as to bring out that the picture Sellars offers in "The Role of the Imagination in Kant's Theory of Experience" is not vulnerable to my objections, in Lecture II of "Having the World in View: Sellars, Kant, and Intentionality" (*Journal of Philosophy* 95 [1998]), against the way the metaphor figures in the earlier work.
20. See, e.g., "Empiricism and the Philosophy of Mind," part XVI (190–95 in *Science, Perception and Reality*).

21. This is especially clear in his later work, but the idea is already operative in, e.g., "Philosophy and the Scientific Image of Man" (*Science, Perception and Reality*, 1–40).
22. On the inextricability of color and shape in sensory consciousness, see especially "Berkeley and Descartes: Reflections on the Theory of Ideas," reprinted in *Kant's Transcendental Metaphysics*.
23. See *Science and Metaphysics*, 28–30.
24. *Science and Metaphysics*, 8. DeVries writes (*Wilfrid Sellars*, 231) that "one reason (among many) that Sellars finds Kant so amenable" is that Kant "also [that is, like Sellars] believes that there is a kind of 'inner space-time' whose structure mimics physical space-time to a large degree." But the fact is that Sellars chides Kant for *not* arriving at such a conception; he thinks this is what Kant should believe, not what he does believe.
25. For a couple of examples, see "Empiricism and the Philosophy of Mind," §35, 167 in *Science, Perception and Reality*; and "Being and Being Known," §7, 43 in *Science, Perception and Reality*.
26. He urges this in, among other places, a well-known letter to Marcus Herz (May 26, 1789). See the translation in Arnulf Zweig, ed., *Immanuel Kant: Correspondence* (Cambridge: Cambridge University Press, 1999).
27. I am defending what deVries calls "intentionalism in the treatment of sensations" (*Wilfrid Sellars*, 305, n.20). He connects Sellars's rejection of this with "his Kantian distinction between sense and conception." But my point is that the reading of the Kantian distinction according to which sensory consciousness cannot itself be informed by intentionality is not compulsory. There is nothing unKantian about the position I am defending.
28. See, e.g., "Empiricism and the Philosophy of Mind," §22 (last paragraph), 152 in *Science, Perception and Reality*; §45 (third paragraph), 175 there; and §61, item (2), 192 there.
29. This was how I understood Sellars in "Having the World in View."
30. "The Structure of Knowledge," 310. He uses this kind of language in several places.
31. Ibid.
32. See the closing pages of "Some Reflections on Perceptual Consciousness," in *Kant's Transcendental Metaphysics*; and "Foundations for a Metaphysics of Pure Process," in *The Monist* 64 (1981).
33. *Science and Metaphysics*, 16. I consider this part of Sellars's thinking in "Having the World in View."
34. See "Philosophy and the Scientific Image of Man," and "Foundations for a Metaphysics of Pure Process."
35. See my papers "Values and Secondary Qualities" and "Aesthetic Value, Objectivity, and the Fabric of the World," reprinted in my *Mind, Value, and Reality* (Cambridge, Mass.: Harvard University Press, 1998).
36. See, e.g., *Science and Metaphysics*, ix, where Sellars says that appreciating "the non-relational character of 'meaning' and 'aboutness'" is "the key to a correct understanding of the position of mind in nature." He uses the language of signifying in, for instance, "Being and Being Known."
37. There is a first shot, not quite in this context, in my "Having the World in View."

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

The Bounds of Sense

A. W. Moore
St Hugh's College

I.

My title is, of course, a direct echo of the title that P. F. Strawson gave to his famous study of Kant's *Critique of Pure Reason*.[1] Strawson's title, as he pointed out in his preface, was in turn a partial echo of a title that Kant himself had considered for the *Critique*, or at any rate for an embryonic version of the *Critique*.[2] In a letter to Marcus Herz, written in 1771, Kant had told Herz that he was busy on a work which he called *The Bounds of Sensibility and Reason*.[3] Not that this was Strawson's only reason for his choice of title. The title also, he claimed, "[alluded] compendiously to the three main strands in [Kant's] thought."[4] As he went on to amplify this claim, he indicated how, among other things, his title played on the ambiguity of the word "sense", with its connotations of both experience and meaning. He wrote:

> In two ways [Kant] draws the bounds of sense, and in a third he traverses them. He argues, on the one hand, that a certain minimal structure is essential to any conception of experience which we can make truly intelligible to ourselves; on the other, that the attempt to extend beyond the limits of experience the use of structural concepts, or of any other concepts, leads only to claims empty of meaning . . . [But Kant] seeks to draw the bounds of sense from a point outside them, a point which, if they are rightly drawn, cannot exist.[5]

That Strawson managed to accomplish so much in the mere naming of his book prompted one reviewer to write, "The title itself is a roguish stroke of genius."[6]

My aim in this essay is to explore some of the resonances of that book's wonderful Kantian title, and to relate these to some key moments in twentieth-century analytic philosophy, one of whose defining features has been the aspiration to draw the bounds of sense. Both experience and meaning have been of fundamental concern to twentieth-century analytic philosophy, but the latter quintessentially so, and my chief concern in this essay will be with the bounds, in particular, of meaning. Henceforth I shall accordingly use "sense" only in that sense.

This aspiration of twentieth-century philosophy to draw the bounds of sense has in turn been dogged by the very threat of self-stultification to which Strawson saw Kant fall prey. That threat, at a highly schematic level, is clear. Any attempt to draw the bounds of sense by dividing some metaphorical space into two, that whereof one can make sense and that whereof one cannot, looks as if it must fall foul of the fact that one cannot make sense of the divide itself unless one can make sense of both sides. As Wittgenstein famously says, in his preface to the book whose contribution to this dialectic has arguably been more significant than any other and whose own echoes will have been clear in what I have said so far, "in order to be able to draw a limit to thought, we should have to be able to find both sides of the limit thinkable (i.e., we should have to be able to think what cannot be thought)."[7] There are various episodes in the history of analytic philosophy in the last century that have been, in effect, more or less self-conscious attempts to work around this aporia, either by drawing the bounds of sense in some entirely different way, or by drawing them in this way and denying that doing so is self-stultifying, or by drawing them in this way, acknowledging that doing so is self-stultifying, and learning to live with the self-stultification.

II.

Let us begin with the *Tractatus*. Among the countless exegetical problems posed by that extraordinary and perplexing book, perhaps the deepest are problems about where it stands in relation to this aporia. All three of the ways just mentioned of trying to work around the aporia have been read into the book. The two extremes, whereby on the one hand Wittgenstein is read as attempting some quite different way of demarcating sense, and whereby on the other hand he is read as attempting to live with self-stultification, are emblematic of what I shall call "new" readings of the book and "traditional" readings of it.[8]

New readings of the *Tractatus* hold the following:

> The limit to be drawn is the straightforward limit that separates those signs to which, as a matter of brute historical fact, meanings have been assigned from those signs to which, as a matter of brute historical fact, no meanings have been assigned; and there is not the least self-stultification in characterizing what lies on the latter side of the limit in precisely that way. What gives the project the interest it has, as a philosophical rather

> than a merely lexicographical exercise, is in part its generality. But its chief interest lies in the fact that there are temptations of a distinctively "philosophical" kind to see meaning where it is lacking. Wittgenstein's aim in the *Tractatus* is to eliminate such temptations. And the way in which he tries to achieve this aim is by producing signs to which such temptations attach; then indulging the temptations to such an extent that they eventually become unsustainable and disappear. Again, there is not the least self-stultification in this.

Traditional readings of the *Tractatus*, by contrast, hold the following:

> There are, in Wittgenstein's view, things that cannot be put into words. And what divides these things from the things that can be put into words is something that itself cannot be put into words. Any attempt to say what divides them must therefore issue in nonsense. If this means that any attempt to say what divides them must be self-stultifying, so be it. It does not follow that any such attempt must be a failure. For there may be a *special kind* of nonsense that is able to serve the very function required here. And indeed Wittgenstein thinks there is. Such nonsense is precisely what he takes the bulk of the *Tractatus* to consist in. He thinks that the nonsense that he himself produces can help us to apprehend some of the things that cannot be put into words. In particular, it can help us to apprehend what divides the things that cannot be put into words from the things that can. The self-stultification is benign.

It is not my purpose here to arbitrate in this exegetical debate. But I do want to highlight one advantage that new readings certainly have over their more traditional rivals, namely that they chime well with that section in the preface from which I quoted earlier. Significantly, my quotation, though relevant to the structure of the aporia that I was using it to illustrate, was concerned with drawing a limit to *thought*, not with drawing a limit to sense (= meaning). But it is the latter that is currently of concern to us. And precisely Wittgenstein's point, in the larger context from which I quoted, is that, although the former is impossible—for the very reason given in the quotation—the latter, where attention turns from the object of thought to the expression of thought, and where the limit to be drawn is the limit that separates those signs that are used to express thoughts from those signs that are not, is perfectly possible. For there is no suggestion in this latter case that the limit to be drawn is a limit between what has one kind of subject matter and what has another. It is a limit, rather, between what has any kind of subject matter and what has none. And we can certainly say what constitutes *this* limit—without having to say anything about a subject matter about which, in the nature of the case, nothing can be said. Whatever lies on the "wrong" side of this limit "will simply be," as Wittgenstein says, "nonsense."[9]

Here is another way of approaching these issues—in terms of different kinds of possibility. Intuitively, some kinds of possibility are strictly subsumed by others. Thus whatever is technologically possible is physically possible, but not vice versa; whatever is physically possible is mathematically possible, but not vice versa. The natural picture here is that of a series of concentric circles, in which larger circles

include possibilities that smaller circles exclude. To be sure, there are some kinds of possibility, notably those that have a cognitive element, that may not fit this picture. These kinds of possibility may cut across the others. For instance, a given physical possibility may qualify as such for reasons that are too complex or subtle for us fully to grasp and may thereby count as an impossibility of another, cognitive kind that in other cases extends beyond the physical: say, the imaginable.[10] Furthermore, it may be that none of these kinds of possibility admits of a precise characterization and that what separates any two is always contestable. But still, the picture of a series of concentric circles, applicable in at least some central cases, is an intuitively compelling one. And it is often the means we use to indicate what a given kind of possibility excludes, or at least some of what it excludes: we say that certain things are not possibilities of that kind, by first identifying them as possibilities of some more inclusive kind. Thus a politician may say, adverting to what is technologically possible, "There are *some* ways of improving the safety of our railways that are unaffordable." A botanist may say, adverting to what is physically possible, "There are *some* temperatures below which plant life is unsustainable." (The politician is not vindicated by the technological impossibility of a completely failsafe automated signaling system; nor the botanist by the physical impossibility of any temperature below absolute zero.)

Now it is natural to suppose, further, that there is one kind of possibility that subsumes all the rest. We might call this "ultimate" possibility, or "logical" possibility. True, there are various reasons why this idea of an all-inclusive kind of possibility is not as straightforward as it appears, even when complications concerning possibilities of a more or less cognitive kind are set aside. Thus consider the fact that the impossibility of something's being both green all over and red all over, though logical in a loose sense, does not turn on the meanings of what would standardly be recognized as logical constants.[11] But, to the extent that we are entitled to think in terms of one all-inclusive kind of possibility, we have a further compelling illustration of the aporia that afflicts the drawing of the bounds of sense. For we obviously cannot say, except as a kind of joke, that what this all-inclusive kind of possibility excludes are possibilities of such and such another kind, as it may be the 'illogical' possibility that grass both is and is not green. This all-inclusive kind of possibility is not just another circle in the space we have been considering. It *is* the space we have been considering. To delimit it requires something of an altogether different kind. It requires an ascent, however indirect, to the metalanguage, whereby certain combinations of words can be said not to represent possibilities at all. They can be said, in one good sense of the phrase, *not to make sense*. This accords with Wittgenstein's shift of attention in the preface to the *Tractatus* away from thought to the expression of thought. It also accords with various remarks in his later work. At one point, in *Philosophical Grammar*, commenting on the infinitude of the sequence of cardinal numbers, Wittgenstein insists that we should not say, "There is no last cardinal number"—as though we were excluding some possibility —but should rather say, "The expression 'last cardinal number' makes no sense."[12]

And in *Philosophical Investigations*, having remarked that "*essence* is expressed by grammar," he says of a puzzle that he is wrestling with there, "The great difficulty here is not to represent the matter as if *there were something* one *couldn't* do."[13]

This shift of attention from the object of thought to the expression of thought, or from possibilities to the representation of possibilities, does seem to provide a non-self-stultifying way of drawing the bounds of sense. (Of course, there remains the exegetical puzzle of why Wittgenstein should nevertheless have stepped beyond those bounds when trying to execute this project in the *Tractatus*; but we have already seen how new readings of the *Tractatus* address this puzzle.) The basic procedure of drawing the bounds of sense by distinguishing, not between that of which sense can be made and that of which it cannot, but between that which has sense and that which does not, appears unimpeachable. But is it?

I alluded earlier to the fact that the project is supposed to be a philosophical project, not a merely lexicographical one. It will of course count as a philosophical project in so far as it provides for a general account of *what it is* to have sense and does not merely, and literally, issue in a combined lexicon and grammar for some particular language. Nevertheless, if it is to have the kind of philosophical point that drawing the bounds of sense had for Kant, it must do more than that. For one thing, it must combat various illusions of sense.

According to new readings of the *Tractatus*, that is precisely what the project, as executed there, does do; or at least, that is precisely what Wittgenstein intends it to do. The way in which Wittgenstein tries to realize this intention, according to new readings, is by so presenting various illusions of sense that they eventually disappear. But is there not more to it than that? *Should* there not be more to it than that? Surely our philosophical aspirations are not going to be satisfied except in so far as we have some sort of diagnosis—some sort of explanation for why various assignments of meanings to signs appear to confer sense where they do not—and, more generally and more significantly, except in so far as we have some general philosophical understanding of what assignments of meanings to signs can achieve and what, despite appearances, they cannot.[14] How clear is it that we can attain and express *such* an understanding, itself a project in drawing the bounds of sense, without self-stultification? How clear is it, for instance, that we can attain and express such an understanding without identifying various things which cannot be expressed, and which cannot therefore be suitably identified, no matter what assignments of meanings to signs we make? How clear is it, for that matter, that this is not Wittgenstein's project in the *Tractatus*?[15]

At the very beginning of his book Wittgenstein writes, "The world is all that is the case. The world is the totality of facts, not of things."[16] This is connected to his subsequent remark that "propositions can only say *how* things are, not *what* they are."[17] Thus although we can *name* things, and thereby speak *about* them, we cannot put them into words, or express them by means of propositions, in the way we can facts. These remarks help to combat the temptation, real enough in my view, to express what one understands in knowing the meaning of a word by casting it in

propositional form, as though what one knew were *that* something is the case. Such remarks also have the kind of diagnostic generality to which I was referring in the previous paragraph. Yet the claim that the world consists of facts, not of things, stands in direct violation of something that Wittgenstein says later in the book, echoing his admonishment in the preface against drawing the limits of thought:

> [We] cannot say in logic, "The world has this in it, and this, but not that."
> For that would appear to presuppose that we were excluding certain possibilities, and this cannot be the case, since it would require that logic should go beyond the limits of the world; for only in that way could it view those limits from the other side as well.[18]

So Wittgenstein has found himself falling prey to the very threat of self-stultification that he highlighted in the preface.[19] Nor is it clear that he has any other way of conveying his insights into the nature of language. True, he might urge upon us a distinction between effable states of knowledge, such as someone's knowledge that grass is green, and ineffable states of knowledge, such as someone's knowledge of the meaning of the word "green"; and he might insist, without any obvious self-stultification, that only knowledge of the former kind can be expressed by what has sense, or in other words can be expressed at all. But if he did thereby manage to avoid self-stultification, then he would do so only at the price of vacuity. He would still not have done justice to his own insights into what an abortive attempt to express knowledge of the latter kind would be an abortive attempt to do—insights, that is, into what would *motivate* the attempt. It remains unclear whether he has any way of conveying these insights without himself making that same abortive attempt. The aporia remains stubbornly in his way, still to be negotiated.

III.

Let us return to the very idea of demarcating that of which one can make sense by dividing some metaphorical territory into that of which one can make sense and that of which one cannot. In taking for granted that there is something incoherent about this, we are taking for granted a relatively undemanding conception of what it is to make sense of something. For the thought, presumably, is that

(1) in order to effect such a divide, one must make sense of it,

and

(2) in order to make sense of such a divide, one must make sense of what lies on both sides of it.

But there are more demanding conceptions of what it is to make sense of something which allow us to resist either (1) or (2). Thus on a conception whereby one does not make sense of something unless one's understanding of that thing has a

suitable grounding in experience, we can resist (1): one might be able to effect such a divide by arriving at an understanding of it which is not in any relevant sense experiential. Again, on a conception whereby one does not make sense of something unless one attains a significant amount of knowledge about that thing, we can resist (2): one might be able to attain a significant amount of knowledge about such a divide without knowing anything, or anything substantial, about what lies on its "far" side. We need to consider ways of working around the aporia which are variations on one or other of these two themes.

It is instructive, first, to ask whether Kant himself might be exonerated in these terms. Consider the opening section of John McDowell's *Mind and World*.[20] In that section McDowell refers to the famous passage in the *Critique* where Kant argues that we need both intuitions and concepts in order to know anything and insists that the former in the absence of the latter are "blind" while the latter in the absence of the former issue in thoughts that are "empty".[21] "For a thought to be empty," McDowell comments, " . . . would be for it not really to be a thought at all, and that is surely Kant's point; he is not, absurdly, drawing our attention to a special kind of thoughts, the empty ones."[22] But it seems to me that that is precisely what Kant is doing, or at least what he takes himself to be doing. This is why, elsewhere in the *Critique*, he insists on the distinction between what we can think and what we can know. What we can think outstrips what we can know precisely because it includes what we can think without intuitions: it includes our "empty" thoughts.[23] Granted this distinction, the distinction between what we can think and what we can know, it is entirely reasonable to equate the bounds of sense that Kant wishes to draw with the bounds of what we can know. It is entirely reasonable, in other words, to accredit Kant with a relatively demanding conception of what it is to make sense of things, whereby we can make sense only of what we can be given in intuition.[24] This in turn allows him to work around the aporia in the first of the two ways suggested in the previous paragraph. Kant can freely admit that the distinction he has drawn between that of which we can make sense and that of which we cannot—between how things appear to us and how they are in themselves, basically—is not itself something of which we can make sense but, along with other things of which we cannot make sense, is something that we can quite legitimately *think*. Thus Kant writes:

> That we can . . . have no knowledge of any object as thing in itself, but only in so far as it is an object of sensible intuition, that is, an appearance . . . is proved in the analytical part of the Critique. Thus it does indeed follow that all possible speculative knowledge of reason is limited to mere objects of *experience*. But our further contention must also be duly borne in mind, namely, that though we cannot *know* these objects as things in themselves, we must yet be in a position at least to *think* them as things in themselves; otherwise we should be landed in the absurd conclusion that there can be appearance without anything that appears.[25]

Does this show that Kant does after all have a satisfactory way of drawing the bounds of sense? Well, no; that conclusion would be precipitate, not least because there is reason to doubt his distinction between what we can think and what we can know.[26] And even if we grant Kant that distinction, there is reason to doubt whether his handling of it is as careful as it should be. For example, he claims to have "proved" that we can have no knowledge of things in themselves. But would such a proof not issue in knowledge of the very sort it is meant to preclude?[27] (Or is there some contrast between the "negative" knowledge in which it would issue and the "positive" knowledge with which it would implicitly be concerned?[28]) However that may be, we are not yet in a position to say that Kant has a satisfactory way of drawing the bounds of sense. But we *can* say that he avoids the immediate structural threat of self-stultification that constitutes the aporia with which we have been concerned.

IV.

Let us now return to twentieth-century analytic philosophy, where there is a notable attempt to draw the bounds of sense which looks as though it might retain this very advantage. Indeed it looks as though it might retain the advantages of *both* the principal attempts to draw the bounds of sense that we have considered so far while avoiding the defects of either. It shares with what we found in Wittgenstein a metalinguistic focus on the distinction between that which has sense and that which does not. But it also ventures a general philosophical account of why this distinction needs to be drawn where it does, and here it shares with what we have just found in Kant a relatively demanding conception of what it is to make sense of something. Each of these can, in ways that we have seen, serve to keep self-stultification safely at arm's length.

The position I am thinking of is the logical positivism that finds popular and forthright expression in A. J. Ayer's *Language, Truth and Logic*.[29] The principle of verification enunciated in that book, whereby a statement has "literal meaning" if and only if it is either analytic or, in some suitably refined sense, empirically verifiable,[30] is a way of distinguishing between that which has a kind of sense and that which lacks it—which provides one sort of protection against the threat of self-stultification. But the principle allows for all sorts of meaningful statements that lack this kind of sense. Most notably, it allows for statements of value, whose meaning is of an altogether different kind, namely to express feelings and/or to prescribe courses of action.[31] To this extent such positivism works with a relatively demanding conception of what it is to make sense of something—which provides a different sort of protection against the threat of self-stultification.

But how exactly is this latter sort of protection to be implemented? We saw two models in the previous section: drawing the boundary around sense in a way that does not involve making sense of that boundary, *contra* (1); and drawing the bound-

ary around sense in a way that does involve making sense of that boundary but does not involve making sense of what is on the "wrong" side of it, *contra* (2). Which of these do advocates of such positivism profess to be doing? This choice is, in effect, a choice about how to answer the question, "What status does the principle of verification itself have?", a question that is often posed as a challenge to such positivism. Both alternatives are reckoned to be unattractive. But actually both alternatives are (*prima facie*) attractive; and advocates of such positivism, if they experience any embarrassment with the question at all, are liable to experience the embarrassment of riches. The first alternative, whereby drawing the boundary around sense does not involve making sense of that boundary, is to regard the principle as a literally meaningless *prescription* about how to use the expression "literal meaning". The second alternative, whereby drawing the boundary around sense does involve making sense of it, but in a way that is innocuous, is to regard the principle as an analytic truth validated by how the expression "literal meaning" is already used, at least by philosophers party to the relevant disputes. In *Language, Truth and Logic* it is unclear which of these tactics Ayer takes himself to be adopting. He calls the principle a "definition", but insists that "it is not supposed to be arbitrary."[32] Later he makes clear that he took himself to be adopting the first alternative. He says that he was never tempted to regard the principle as either empirically verifiable *or* analytic, then continues:

> Happily not everything that the verification principle failed to license was cast by me on the pyre of metaphysics. In my treatment of ethics, I made provision for prescriptive statements . . . . Accordingly, in . . . *Language, Truth and Logic*, I treated the verification principle as a prescriptive definition.[33]

So far, one might think, so good. However, as Ayer also goes on to remark, there remains the question of why the prescription should be obeyed. "I evaded this awkward question," he writes, "by defying my critics to come up with anything better."[34] But why is the question awkward? More particularly, why is it awkward for Ayer? Not because he has nothing to say in answer to it. There is plenty that he might say, and that would be consonant with his overall view of these matters, most pertinently that only when a statement has what he calls "literal meaning" is there any such thing as determining its truth or falsity; indeed, only then that it is either true or false. What makes the question awkward for him is something that Michael Dummett forcefully argues in the essay to which Ayer is replying when he makes these remarks: namely, that no answer he gives will be fully satisfactory unless and until it is placed in the context of some general semantic theory that is of just the kind that he wants to cast "on the pyre of metaphysics."[35] Any such theory must include a philosophical account of what, if anything, enables the truth or falsity of statements of various kinds to be determined, and of how this in turn relates to whether statements of those kinds are true or false. If, for instance, the presence of an evaluative element in a statement prevents its truth or falsity from being determined, and thereby ultimately prevents it from being true or false, then the theory

must indicate why—which is as much as to say that it must engage with the "metaphysics" of value. This is enough to constitute a significant *ad hominem* point against Ayer. More importantly, when combined with the worries expressed above in §2 about the project of attaining and expressing a general philosophical understanding of what any assignment of meanings to signs can achieve, it indicates that there is *still* a threat of self-stultification to be negotiated. Logical positivism may not provide us with the best of both the Wittgensteinian world and the Kantian world after all.

V.

In §3 I voiced a worry about Kant's own way of drawing the bounds of sense. This is a worry about his distinction between what we can think and what we can know. The "empty" thoughts that Kant sanctions seem to me (just as they seemed to Strawson[36]) to be too "empty" to do the work that he requires of them. Still, at least in drawing such a distinction Kant indicated one way to avoid the immediate structural threat of self-stultification that afflicted his project. It was something of this same general sort, specifically a distinction of meaning between statements of different kinds, which, momentarily at least, seemed to provide logical positivism with protection against its own equivalent threat.

In the work of Quine there is a descendant of logical positivism which is as hostile as its forebear to the excesses of metaphysics and as deeply committed to the links between sense, verification, and experience, but which is also utterly impatient with any such distinctions of meaning. On Quine's view, if a statement has meaning at all, then it is either true or false, and there is such a thing as determining its truth or falsity. "Suppose," Quine writes,

> we think of truth in terms of Tarski's paradigm. The paradigm works for evaluations . . . as well as for statements of fact. And it works equally well for performatives. "Slander is evil" is true if and only if slander is evil, and "I bid you good morning" is true of us on a given occasion if and only if, on that occasion, I bid you good morning . . . . There are good reasons for contrasting and comparing performatives and statements of fact, but an animus against the true/false fetish is not one of them.[37]

Furthermore, whatever else might distinguish determining that one statement is true from determining that another is, there is a holistic interdependence between such things which means that there is never any answer to the question, "What empirical evidence is required to verify just *this* statement?"[38] In particular, there is no statement for which the answer is "None"—no statement which can be verified irrespective of what empirical evidence there is. That is, there is no such thing as an analytic statement. Hence even the distinction of meaning that Quine's positivist predecessors wanted to draw *within* the range of statements that have sense is

uncongenial to him. Indeed, it is his hostility to *this* distinction which is as emblematic as anything of his own brand of positivism.[39]

Prima facie, then, Quine is in trouble. He is espousing a kind of positivism which involves him in drawing the bounds of sense, but which lacks the very resource which looked as though it might enable someone in his position to draw those bounds non-self-stultifyingly. In fact, however, as I indicated in the previous section, what really carries the threat of self-stultification is the attempt to attain and express some general philosophical understanding of why the bounds of sense should be drawn where they should. But Quine's refusal to recognize various distinctions of meaning between statements goes hand in glove with a refusal to recognize various distinctions of aim and methodology between explanatory projects: in particular, the distinction between trying to attain and express such a general philosophical understanding and trying to account, in broadly scientific terms, for how, as a result of interactions between us and our environment, some things come to have sense while others do not. As long as understanding why the bounds of sense should be drawn where they should is seen as part of this scientific enterprise, and not as some philosophical propaedeutic to it, then it is not at all clear that it carries any threat of self-stultification. And as long as it is *not* seen in this way, then it is not at all clear either that Quine will want anything to do with it or that he should.

To be sure, Quine may find it harder than he supposes to keep some of his predecessors' distinctions at bay. There is a revealing section in *Pursuit of Truth*[40] where Quine addresses the question whether the empiricism that underpins his semantic views is itself empirical. Unsurprisingly, he insists that it is. He writes that "it is a finding of natural science itself, however fallible, that our information about the world comes only through impacts on our sensory receptors."[41] And he later adds, "It would take some extraordinary evidence to [testify to either telepathy or clairvoyance] . . ., but, if that were to happen, then empiricism itself . . . would go by the board."[42] Yet he also seems to acknowledge, as an issue quite different in kind from the empirical issue of what elicits or is used to justify any given scientific statement, the issue of why the statement *counts* as a scientific statement (and thereby counts as having sense). He writes:

> When I cite predictions [that is, predictions of sensory input] as the checkpoints of science, . . . I see [that] as defining a particular language game, in Wittgenstein's phrase: the game of science . . . A [statement's] claim to scientific status rests on what it contributes to a theory whose checkpoints are in prediction.[43]

Given the context, this last statement can readily be heard as a prescription, such as Ayer took the verification principle to be; or, worse still for Quine, as an analytic truth.[44]

The important point, however, is that Quine's drawing of the bounds of sense is to be seen as part of a scientific enterprise and, seen as such, it does not appear to be under any special threat of self-stultification. His semantics is informed by his

general worldview and is proffered from a point of immersion within that worldview. Thus just as he couches his empiricism in terms of impacts on sensory receptors, ocular irradiation, and the like, so too he couches his positivist conception of meaning in those same terms.[45]

There is much here to give pause however. I shall mention two worries in particular that Quine's critics have had. First, there is a worry to which McDowell has given celebrated expression, a worry in which we can hear muffled echoes of Wittgenstein's insistence that the world is the totality of facts, not of things.[46] This is the worry that, by construing our evidence for our worldview as a matter of impacts on our sensory receptors, ocular irradiation, and suchlike, Quine is casting entities that are external to our worldview in a role that ought to be filled by entities that are already part of our worldview, namely experiences we have of things being thus and so; and, by the same token, he is representing what ought to be a logical or rational relation, namely the relation between our evidence and the rest of our worldview, as a merely causal relation.[47]

The second worry suggests, conversely as it may appear (but see further below), that Quine has represented the relation between our evidence and our worldview as something *too* intimate. This is a worry that John Campbell has expressed very forcibly.[48] It is the worry that, by construing our evidence for our worldview in terms that depend so heavily on that very worldview, Quine has negated an important principle whose importance, indeed, he himself would be the first to emphasize, namely that our worldview is underdetermined by our evidence. "[Given that] the patterns of ocular irradiation have to be described in terms of the physics of the day," writes Campbell, "how . . . could they be consistent with some rival to the physics of the day?"[49]

Now one might think that Quine has a perfectly satisfactory riposte to Campbell's rhetorical question. What matters, one might think, is not how the patterns of ocular irradiation are to be described, but what their *content* is. Here is an analogy. Imagine a brain in a vat, in a classical skeptical scenario,[50] whose subject thinks that he is living the life of a medieval monk. And suppose we have to draw on various principles of computerized neurotechnology to describe what is happening to the brain. It simply does not follow that what is happening to the brain is enough to refute the subject's impression of what kind of life he is living. Again, suppose we have to use some realist theory about middle-sized dry goods to describe the impact of Samuel Johnson's foot on a stone. It simply does not follow that this impact is enough to refute Berkeleian idealism.[51] Similarly, if we have to use the physics of the day to describe certain patterns of ocular irradiation, it simply does not follow that these patterns are enough to refute each and every rival to that physics. If there were people who, on broadly the same evidence as ours, accepted such a rival, then they could not acknowledge any such phenomenon as ocular irradiation (which of course would be a deficiency by our lights). They would have to tell their own rival story about what empirical evidence they had for their theory. Yet, for all that, their evidence would in fact (by our lights) involve

ocular irradiation. There is nothing incoherent in this. Such is how the underdetermination of theory by evidence is bound to be described from a point of immersion in one of the underdetermined theories—the only kind of point, in Quine's view, from which it *can* be described.[52] Nor does this mean that various pragmatic forces cannot eventually bring us to a point of immersion in one of the rivals to the physics of the day. Campbell suggests that, without an Archimedean point, Quine's view leads to an unacceptable conservatism.[53] But the image of Neurath to which Quine famously appeals is precisely meant to show that this is not so: we can entirely rebuild our boat even while staying afloat in it, provided that we rebuild it plank by plank.[54]

Is this a legitimate reply on Quine's behalf to Campbell's rhetorical question? Only on one absolutely fundamental assumption: that it makes sense *in Quine's terms* to talk about the "content" of our evidence. If it does not, the question whether our evidence refutes this or that theory cannot so much as arise for Quine. But this now brings us back to McDowell's worry. For McDowell's worry is precisely that it does *not* make sense, in Quine's terms, to talk about the content of our evidence; that Quine has construed evidence as a matter of events and episodes which can enter into causal relations but not into logical relations. This is why McDowell thinks that Quine needs a fundamentally new and more commonsensical conception of our evidence whereby our evidence is a matter of how we experience things as being. But really that is Campbell's point too. "Scientific theorizing," Campbell writes, "can never let go of the idea that it is ultimately our experiences [as of macroscopic physical objects] that have to be explained."[55] The two worries, despite an initial impression of disparity, are of a piece.

And they cut deep. For they suggest that there is after all room for some kind of philosophical propaedeutic to science. They suggest that we can legitimately seek a general philosophical understanding of what science is answerable to. Moreover, when this idea is combined with the broadly positivist conception of meaning that Quine favors, with its perceived link between what science is answerable to and what makes sense, then it leads down the very path that I have already identified as the main route to self-stultification: the path of trying to attain and express a general philosophical understanding of why the bounds of sense should be drawn where they should. So it seems that Quine has become yet another example of how *not* to evade the threat of self-stultification.

VI.

I have suggested more than once that, when drawing the bounds of sense is construed as a philosophical enterprise, or in other words when the aim of the enterprise is to attain and express some general philosophical understanding of why the bounds are to be drawn where they are, then self-stultification looms. There is evidence for

this in the *Tractatus*. And we have seen evidence in the work of various positivists for how hard it is to keep a suitable distance from just such a philosophical enterprise, even given the firmest of resolves.

That there are links here with Kant should be evident to anyone familiar with the accusation of self-stultification levelled against him by Strawson (see above, §I). But the links are more profound than that. It is not just that attempts by twentieth-century analytic philosophers to draw the bounds of sense share certain structural defects with Kant's attempts to do something analogous. They actually lead in the direction of transcendental idealism. When Wittgenstein declares in the *Tractatus* that the world is the totality of facts, not of things, he is setting the limits of the world as the limits of what can be thought or said.[56] That grass is green is part of the world, because it is possible to think and to say that grass is green; but neither grass nor greenness is part of the world, because there is no such thing as either thinking or saying either grass or greenness.[57] This is a kind of transcendental idealism.

The worry, of course, is that, in as much as a construction such as "thinks greenness" is nonsense, then so too is a sentence such as, "There is no such thing as thinking greenness." Or, to put the worry somewhat less accurately but with greater rhetorical force, if there is no such thing as either thinking or saying something, then neither is there any such thing as either thinking or saying that there is no such thing as either thinking or saying that thing. Transcendental idealism itself is nonsense.[58]

If these suggestions are even broadly correct, then it is impossible to attain and express any general philosophical understanding of why the bounds of sense should be drawn where they should. It is impossible, on that ambitious construal of drawing the bounds of sense, to draw the bounds of sense; and any attempt to do so will issue in nonsense. But what follows? Each time that I have referred to what it is impossible to do, I have quite deliberately used the phrase "attain and express": it is impossible to *attain and express* such a general philosophical understanding. What follows, then—or at least, one thing that follows—is that *either* it is impossible to attain such an understanding *or* it is possible to do that, but it is not possible at the same time to express the understanding, in other words the understanding is ineffable. My own view is that twentieth-century analytic philosophy provides the resources to accommodate the latter alternative, and indeed to accede to it. But that is a story for another occasion.[59]

NOTES

1. Strawson (1966), a study of Kant (1933). (I have specified Kemp Smith's translation of the *Critique*, even though, on the whole, I prefer the translation by Paul Guyer and Allen W. Wood (Cambridge: Cambridge University Press, 1998). I have done so because Kemp Smith's translation of one crucial passage that I shall be citing later is clearer for my current purposes: see below, note 25 and accompanying text.)
2. Strawson (1966), 11.

3. Kant (1999), 10:123, p. 127. Cf. another letter to Herz, written the following year, ibid., 10:129, p. 132, where he said that he had been "making plans for a work that might perhaps have the title, *The Limits of Sensibility and Reason*." Although Zweig translates the title differently in the two cases, the original German is the same: the word that is rendered first *Bounds* and then *Limits* is *Grenzen.*
4. Strawson (1966), 11.
5. Ibid., 11–12.
6. Cerf (1972), 601.
7. Wittgenstein (1961), 3.
8. I use these labels because they usefully signal two exegetical tendencies. I do not mean to suggest that there is a simple polarization in the secondary literature. Cf. in this connection Sullivan (2003), footnote 2 and 214–15. For a traditional reading, see Hacker (1986), esp. ch. 1; and for new readings, see Diamond (1991) and Conant (1989). For an intermediate reading, see McGinn (1999). And for a quite different reading, see Moyal-Sharrock (2007). I myself try to provide something that is not readily classifiable as either a traditional reading or a new reading (or perhaps rather that *is* classifiable, with suitable qualifications, as both): see Moore (2003).
9. Wittgenstein (1961), 3. Cf. Sullivan (2003), esp. 209–11, to which I am much indebted.
10. Kripke (1980) is a classic discussion of a variation on this theme. See also Edgington (2004): but note her footnote 12, where she says that, although the metaphysically possible and the epistemically possible cut across each other, "one has to search hard for examples, which are rather contrived and on the whole not very important or interesting, of the metaphysically possible which is not epistemically possible."
11. *Contra* Wittgenstein: see Wittgenstein (1961), 6.3751.
12. Wittgenstein (1974a), 465.
13. Wittgenstein (1974b), Pt. I, §§371 and 374, first and third emphasis his, second emphasis mine. Cf. in this connection Wittgenstein (1961), 4.113–4.116, and Williams (1981), 159–60—where in each case there is an image of working outward from within the space of sense toward its 'edge', which, if it means anything at all, surely means (something like) producing combinations of words that make sense with a view to registering the point at which similar combinations of words fail to make sense. Note: the failures to make sense that are of concern here may quite properly be distinguished from other failures to make sense. Thus, even in Wittgenstein (1961), where Wittgenstein is impatient with various attempts to discriminate between ways of failing to make sense (see 5.473 and 5.4733), he himself distinguishes between lacking sense and being nonsensical (see 4.461–4.4611). This observation may in turn help Wittgenstein to treat as an ally someone who is *prima facie* a foe: I am thinking of Deleuze and his comments in Deleuze (1990), 35.
14. Cf. Sullivan (2003), 211–12.
15. This paragraph is a summary allusion to ideas that I have expressed elsewhere. See Moore (2003), esp. 189–90, where similar questions are posed.
16. Wittgenstein (1961), 1 and 1.1.
17. Ibid., 3.221, his emphasis.
18. Ibid., 5.61. An obvious reply on Wittgenstein's behalf is that he does not in fact say anything in 1.1 that he proscribes saying in 5.61, since he uses the word 'world' differently in the two cases: in the former, to refer to the realm of the actual; and in the latter, to refer to the realm of the possible. I incline to the view that he uses it to refer to the realm of the actual throughout the *Tractatus*; and that what enables him to refer to the realm of the possible in 5.61 is his use of other words and phrases, notably "limits" and "in logic". But even if I am wrong about that—even if Wittgenstein's use of 'world' is ambiguous in the way proposed—what he says in 1.1, with its clearly implied application to any other possible world, is still surely offensive to the spirit of what he says in 5.61.
19. And, for reasons that I shall sketch in §VI, he has found himself endorsing a species of transcendental idealism to boot. The links with Kant are profound.
20. McDowell (1994).
21. Kant (1933), A50–51/B74–75.
22. McDowell (1994), 3–4.

23. E.g., Kant (1933), Bxxvi, footnote; B146; B166, footnote; and A771–72/B799–800.
24. Cf. ibid., B148–49; A239–40/B298–99; A247/B304; A696/B724.
25. Ibid., Bxxvi, his emphasis. (This is the passage to which I referred in note 1.)
26. Cf. Moore (1997), 139–40. See also ibid., 250–51.
27. If Williamson (1996) is right, then there is even a question about whether Kant is entitled to make assertions about what we can know nothing about: Williamson argues that, in asserting something, one represents oneself as knowing it.
28. Cf. Kant (1933), B307 ff.
29. Ayer (1971).
30. See ibid., Introduction.
31. Ibid., ch. 6, passim.
32. Ibid., 20–21.
33. Ayer (1992), 149.
34. Ibid.
35. Dummett (1992), esp. 133–34. Ayer partially concedes this point in Ayer (1992), 150.
36. Strawson (1966), e.g., 264–65.
37. Quine (1981), 90.
38. Or hardly ever. Quine does acknowledge some rare and artificial exceptions: see Quine (1986), 620.
39. The *locus classicus* is Quine (1961).
40. Quine (1992), §8.
41. Ibid., 19.
42. Ibid., 21.
43. Ibid., 20. There are three things to note here. First, my gloss on "predictions" in the first pair of square brackets is taken from ibid., 21. Second, my replacement of "sentence" by "statement" in the third pair of square brackets is simply to bring the quotation into line with my usage elsewhere in this essay: I hope it does not do violence to Quine's intentions. Third, in the second ellipsis Quine writes, "in contrast to other good language games such as fiction and poetry," which indicates that he is not impatient with all distinctions of usage between statements.
44. But perhaps Quine manages to stop it from sounding like the latter when he subsequently observes that, given evidence for the falsity of empiricism, "it might indeed be well to modify the game itself," ibid., 21. For the significance of this observation, and its relevance to whether his own earlier statement is analytic, see Moore (2002), §I.
45. It is largely on this basis that he famously draws the conclusion that, if a question about meaning cannot be answered by adducing empirical evidence, then there is no fact of the matter concerning what its answer is: e.g. Quine (1960), ch. 2, and Quine (1992), ch. 3.
46. For McDowell's own explicit reference to Wittgenstein in this connection, see McDowell (1994), 27.
47. See esp. ibid., Afterword, Pt. I, §3. It is interesting to note in this connection how evasive much of Quine's language is. In Quine (1992) he speaks of "the flow of evidence from the triggering of the senses to the pronouncements of science," 41. The word "flow" here nicely straddles the very divide that McDowell is trying to get Quine to recognize.
48. Campbell (2002), ch. 11, §5.
49. Ibid., 233.
50. See Putnam (1981), 5–6.
51. Johnson famously thought it was enough: see Boswell (1887), vol. 1, 471.
52. See e.g. Quine (1960), ch. 1, passim.
53. Campbell (2002), 234.
54. Quine (1960), 3.
55. Campbell (2002), 234. Cf. also Stroud (1984), ch. 6, esp. 250–54.

56. I do not mean to deny that he is doing the converse as well. There may be reciprocal dependence here.
57. This is connected with the fact, as I see it, that there is no such thing as saying what it is for something to be green, where this means saying what it is, *in essence*, for something to be green (cf. Moore [1997], 134–35, 163–64, and 184). But surely there is such a thing as *knowing* what it is for something to be green? Perhaps there is. But see in this connection Wittgenstein (1974b), Pt. I, §78. (There is also a connection with the remarks made toward the end of §II above about the ineffability of knowing the meaning of the word 'green'.)
58. Cf. Wittgenstein (1961), 5.6 ff. The links between Wittgenstein's early work and transcendental idealism, and other related links, including the link between his later work and transcendental idealism, have been a preoccupation of mine for some time. See e.g., Moore (1985); Moore (1997), esp. chs. 6–9; Moore (2003), which deals in particular with the threat that accompanies any attempt to categorize something as nonsense, namely the threat of uttering further nonsense (see esp. §VIII); and Moore (2007). The inspiration for much of this is Williams (1981).
59. See again the material cited in the previous footnote.

REFERENCES

Ayer, A. J. 1971. *Language, Truth and Logic*, 2nd ed. Harmondsworth: Penguin.

Ayer, A. J. 1992. "Reply to Michael Dummett," in L. E. Hahn (ed.), *The Philosophy of A. J. Ayer.* La Salle: Open Court.

Boswell, James. 1887. *The Life of Samuel Johnson, LL.D.* Oxford: Oxford University Press.

Campbell, John. 2002. *Reference and Consciousness.* Oxford: Oxford University Press.

Cerf, Walter. 1972. "Review of *The Bounds of Sense,*" in *Mind* 81.

Conant, James. 1989. "Must We Show What We Cannot Say?", in Richard Fleming and Michael Payne (eds.), *The Senses of Stanley Cavell.* Lewisburg: Bucknell University Press.

Deleuze, Gilles. 1990. *The Logic of Sense*, trans. Mark Lester and Charles Stivale and ed. Constantin V. Boundas. New York: Columbia University Press.

Diamond, Cora. 1991. "Throwing away the Ladder: How to Read the *Tractatus,*" reprinted in her *The Realistic Spirit: Wittgenstein, Philosophy, and the Mind.* Cambridge: MIT Press.

Dummett, Michael. 1992. "The Metaphysics of Verificationism," in L. E. Hahn (ed.), *The Philosophy of A. J. Ayer.* La Salle: Open Court.

Edgington, Dorothy. 2004. "Two Kinds of Possibility," in *Proceedings of the Aristotelian Society* Supp. vol. 78.

Hacker, P. M. S. 1986. *Insight and Illusion: Themes in the Philosophy of Wittgenstein*, rev. ed. Oxford: Oxford University Press.

Kant, Immanuel. 1933. *Critique of Pure Reason*, trans. Norman Kemp Smith. London: Macmillan.

Kant, Immanuel. 1999. *Correspondence*, trans. and ed. Arnulf Zweig. Cambridge: Cambridge University Press.

Kripke, Saul. 1980. *Naming and Necessity.* Oxford: Basil Blackwell.

McDowell, John. 1994. *Mind and World.* Cambridge: Harvard University Press.

McGinn, Marie. 1999. "Between Metaphysics and Nonsense: Elucidation in Wittgenstein's *Tractatus,*" in *Philosophical Quarterly* 49.

Moore, A. W. 1985. "Transcendental Idealism in Wittgenstein, and Theories of Meaning," in *Philosophical Quarterly* 35.

Moore, A. W. 1997. *Points of View.* Oxford: Oxford University Press.

Moore, A. W. 2002. "What Are These Familiar Words Doing Here?", in Anthony O'Hear (ed.), *Logic, Thought and Language.* Cambridge: Cambridge University Press.

Moore, A. W. 2003. "Ineffability and Nonsense," in *Proceedings of the Aristotelian Society* Supp. vol. 77.

Moore, A. W. 2007. "Wittgenstein and Transcendental Idealism," in Guy Kahane, Edward Kanterian, and Oskari Kuusela (eds.), *Wittgenstein and His Interpreters: Essays in Memory of Gordon Baker.* Oxford: Basil Blackwell.

Moyal-Sharrock, Danièle. 2007. "The Good Sense of Nonsense: A Reading of Wittgenstein's *Tractatus* as Non-Self-Repudiating," in *Philosophy* 82.
Putnam, Hilary. 1981. *Reason, Truth, and History.* Cambridge: Cambridge University Press.
Quine, W. V. 1961. "Two Dogmas of Empiricism," reprinted in his *From a Logical Point of View: Logico-Philosophical Essays*, rev. ed. Cambridge: Harvard University Press.
Quine, W. V. 1981. "On Austin's Method," reprinted in his *Theories and Things* Cambridge: Harvard University Press.
Quine, W. V. 1986. "Reply to Jules Vuilleman," in L. E. Hahn and P. A. Schilpp (eds.), *The Philosophy of W. V. Quine.* La Salle: Open Court.
Quine, W. V. 1992. *Pursuit of Truth*, rev. ed. Cambridge: Harvard University Press.
Strawson, P. F. 1966. *The Bounds of Sense: An Essay on Kant's "Critique of Pure Reason."* London: Methuen.
Stroud, Barry. 1984. *The Significance of Philosophical Scepticism.* Oxford: Oxford University Press.
Sullivan, Peter. 2003. "Ineffability and Nonsense," in *Proceedings of the Aristotelian Society* Supp. vol. 77.
Williams, Bernard. 1981. "Wittgenstein and Idealism," reprinted in his *Moral Luck.* Cambridge: Cambridge University Press.
Williamson, Timothy. 1996. "Knowing and Asserting," in *Philosophical Review* 105.
Wittgenstein, Ludwig. 1961. *Tractatus Logico-Philosophicus*, trans. D. F. Pears and B. F. McGuiness. London: Routledge & Kegan Paul.
Wittgenstein, Ludwig. 1974a. *Philosophical Grammar*, ed. Rush Rhees and trans. Anthony Kenny. Oxford: Basil Blackwell.
Wittgenstein, Ludwig. 1974b. *Philosophical Investigations*, trans. G. E. M. Anscombe, rev. ed. Oxford: Basil Blackwell.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Logical Form as a Relation to the Object

Sebastian Rödl
University of Basel

Analytic philosophers have turned to Kant to free themselves from the empiricism that dominates the analytic tradition. Their effort must be carried further, if it is to achieve its end. They have contested a conception of sensibility that represents logical form as external to what is given in sensory intuition. In order to complete what they have begun, we must renounce the conception of logical form that is the correlate of this conception of sensibility.

According to the view that is canonical in the analytic tradition, the logical form of a thought is the way in which it is inferentially *related to other thoughts.* Call this the inferentialist conception of logical form. By contrast, according to Kant, the form of a thought is, more fundamentally, the way in which it *relates to an object,* which in the case of theoretical thought is something given in sensory intuition, and in our case something temporal.[1] Call this the transcendental conception of logical form. Contemporary Kant exegesis, be it more systematically or more philologically inclined, has been hampered by an unconscious and therefore unquestioned allegiance to the inferentialist conception of logical form. This has had two consequences. First, many authors who find value in Kant's account of experience take little interest in his account of *pure* knowledge, even though Kant presents that account as the sole end of the *Critique*. For, the form of thought cannot come into view as a source of pure knowledge when it is understood inferentially, but only when it is seen to be a way of relating to the object. Secondly, Kant scholars are confounded by the Analogies of Experience. For, these describe the logical form through which thought relates to the temporal. And the idea of such a form cannot be

framed within the inferentialist conception. I want to suggest, then, that both philosophical logic and the interpretation of Kant will move forward only when it is appreciated that Kant challenges not only the empiricist conception of sensibility, but also the inferentialist conception of logical form that is its counterpart.

I shall proceed as follows. I introduce in a general manner the notion of logical form and the correlate notion of a category (section 1). Then I discuss Frege's philosophy of logic as an example of the inferentialist conception of logical form, with the aim of bringing out an obstacle to giving a complete account of the form of thought in terms of inferential relations: an account of the form of thought must explain how the intellect determines its object a priori by its form, and this cannot be explained by appeal to relations thoughts bear among themselves alone (section 2). Quine's account of logical form attempts to circumvent the obstacle by denying that thought as such has a form. Then, of course, it does not determine the object by its form. However, Quine fails since, denying it any form, what he presents as thought lacks the character of thought (section 3). Kant explains how the intellect determines its object a priori in this way: it a priori determines what is given in intuition by determining it according to the form of intuition. As this form is time, the form of thought, as it a priori determines sensibility, is the form of thinking the temporal, not only in the sense that what is represented according to it is temporal, but in the sense that it is *represented as temporal* in virtue of being thought according to that form (section 4). The Analogies of Experience describe this form of thought, thus articulating pure knowledge of what is given in intuitions whose form is time. I develop this account of the Analogies in a reading of the First Analogy (section 5). This will show how the inferentialist conception of logical form depends on the transcendental conception (section 6).

1. FORM OF THOUGHT AND CATEGORY

The logical form of a thought is the manner in which it is articulated; equivalently, it is the way in which its elements are joined so as to yield a thought. The form of a thought is its unity. As Kant puts it, forms of thought are "Funktionen der Einheit in den Urteilen" (B 94).

A category, or formal concept, determines something solely with regard to the form according to which it is thought, that is, solely with regard to the manner in which, being thought according to that form, it is joined with other things. Kant says the category contains "allein die Form des Denkens eines Gegenstandes überhaupt" (B 74). A table of forms of thought gives rise to a table of categories.

Categories are not empirical concepts. While empirical concepts derive from sensation, the categories originate in the intellect. In the fundamental case, one possesses an empirical concept in virtue of the fact that objects falling under it have affected one's sensibility. One has the concept from the objects falling under it, as

these are given in intuition. By contrast, one applies a category in thinking thoughts of the corresponding form, that is, in joining things in the manner the category describes. Hence, not sensory affection by an object, but acts of thinking an object, thinking it according to a certain form, provide one with the category. One does not receive the category *from the object.* In Kant's apt words, the intellect supplies the category *from itself* (B 1).

2. FREGE

2.1. FREGEAN CATEGORIES

Gottlob Frege writes in the preface to *Grundgesetze der Arithmetik*:

> Jedes Gesetz, das besagt, was ist, kann aufgefasst werden als vorschreibend, es solle im Einklang damit gedacht werden, und ist also in dem Sinn ein Denkgesetz. Das gilt von den geometrischen und physikalischen nicht minder als von den logischen. Diese verdienen den Namen "Denkgesetze" nur dann mit mehr Recht, wenn damit gesagt sein soll, dass sie die allgemeinsten sind, die überall da vorschreiben, wie gedacht werden soll, wo überhaupt gedacht wird. (XV)

The laws of logic do not govern thought about a particular subject matter; they govern thought as thought. In this way, they reveal what thought is. Frege also says that logic is the science of the mind or the thinker or the intellect, as opposed to this or that mind or thinker or intellect.[2] He means that the logical laws are laws of thought, not in the sense that they describe how this or that intellect happens to operate, but in the sense that they are the nature of the intellect.

If thought is subject to the laws of logic, then the intellect is defined by certain logical forms, certain "Funktionen der Einheit in den Urteilen". Frege's concept-script, representing only the character of a thought that decides how the laws of logic apply to it, shows this: it represents thoughts as articulated in certain ways. Representing thought as subject to the laws of logic is representing it as articulated in these ways. An exposition of the Fregean system of the laws of logic contains a table of logical forms.

The concept-script represents elementary thoughts, thoughts whose truth conditions do not depend on the truth conditions of other thoughts, as articulated in a certain way. Frege describes this mode of articulation by calling what such a thought represents "object" and "first-order concept". The concept of a Fregean object and the concept of a Fregean concept are categories: they describe to what they apply solely with regard to the form according to which it is thought. An exposition of the laws of logic contains, with its table of logical forms, a table of categories.

As thought is subject to the laws of logic, it exhibits certain logical forms, to which correspond certain categories. According to Frege the laws of logic are the nature of the intellect; thought as thought is governed by them. It follows that the

forms of thought and the categories that spring from these laws define the intellect. That is, the intellect supplies from itself the system of categories of the concept-script.

The laws of logic are the principle of the form of thought, the principle of the kind of articulation that belongs to thought as thought. Now, the laws of logic of which Frege speaks are, fundamentally, laws of deductive inference. Their study is the office of what Kant calls general logic, which he characterizes as follows:

> Die allgemeine Logik [. . .] abstrahieret von allem Inhalt der Erkenntnis, d. i. von aller Beziehung derselben auf das Objekt, und betrachtet nur die logische Form im Verhältnisse der Erkenntnisse aufeinander [. . .]. (B 79)

General logic attends to relations thoughts bear among themselves, their inferential relations.[3] It abstracts from the fact that thoughts represent an object. It is not that general logic leaves it open whether the thoughts whose relations it studies represent an object. It presupposes that they do, but does not make that a topic.

I said Frege's laws of logic are laws of general logic in Kant's sense. This may seem wrong. Does not the concept-script by showing how the way in which a thought is related to other thoughts according to the laws of logic reveal it to relate to Fregean objects? For Frege, then, attending to the form thoughts bear in relation to each other does not mean abstracting from their relation to the object, and Kant's opposition of transcendental and general logic is not sound. But Frege uses the term "object" differently from Kant. He employs it to designate a specific formal concept, which describes to what it applies as such as to be thought according to a specific form. In Kant, an object is what thought as such seeks to represent and by its agreement with which, if it succeeds, and not per accidens, it is knowledge. When Kant says that thought relates to an object, he does not represent it as articulated in any particular way. If an object in Kant's sense can be thought according to the elementary form represented by the concept-script, then it, the Kantian object, is articulated into Fregean object and Fregean concept. I speak of an object simpliciter when I use the term as Kant does so, of a Fregean object otherwise.

According to Frege, thought as thought exhibits a certain articulation, which its expression in the concept-script reveals. The expression shows, and shows only, how the thought expressed falls under the laws of deductive inference. So these laws are the principle of the articulation that belongs to thought as such. This is the inferentialist conception of logical form: the deductive order of thought is *the principle* of its inner articulation; an exposition of the laws of inference is a *complete* account of the form of thought. Then general logic can by its own means comprehend the form of thought and articulate the content of the categories. For, a description of the system of laws of inference *exhausts* their content. For example, in order to understand what a Fregean object is, it is necessary and sufficient to grasp the laws of the concept-script.

The inferentialist conception of logical form cannot be maintained. An exposition of the deductive order of thought is not a complete account of its inner articulation. General logic does not possess the means to comprehend the form of thought and to expound the content of the categories. We see this when we attend to the fact that thought as such represents an object. (Here we are using "object" in Kant's sense, not in Frege's.)

A form of thought gives rise to a category, which characterizes an object as such as to be thought according to this form. Therefore, as Kant puts it, we describe the same function of the intellect when we describe the form of thought and when we describe the category (B 104–5). However, considering the category, we consider the intellect under a certain aspect: we reflect on the fact that, as thinking is representing an object, forms of thinking are forms of representing an object. As a form of representing an object, a form of thinking *determines the object:* an object thought according to a certain form is represented, being thought in this way, as such as to be thought in this way. Thinking an object according to a form is determining the object as being such as to be represented according to this form. The category contains this determination: it contains what, and only what, is true of the object in virtue of its being such as to be represented according to the form of thought. So, in the category, we think the determination of the object by the form of thinking it.

This applies to Frege's categories: the concepts of Fregean object and concept contain the determination of the object (in Kant's sense) by the forms of thought that the concept-script exhibits. Statements whose truth depends only on the validity of the laws of logic articulate this determination, as they state what holds of Fregean objects and concepts as such.[4] That is, they say what holds of the object (in Kant's sense) in virtue of its being articulated in this way, in virtue of its being such as to be thought according to the elementary form of thought represented by the concept-script.

Thinking of it as category, we consider the form of thought as a determination of the object. And this is how we must consider it, if we are to give a complete account of it. As thinking is representing an object, we have no complete understanding of the form of thought until we see how it can be a form of representing an object, and this is, how the category can determine the object. A complete account of logical form reveals the form of thought to be a source of knowledge. We shall see that this entails that general logic cannot attain to a complete account of logical form.

In the case of theoretical thought, to which we confine ourselves here, the object thought exists independently of being thought. Therefore the object can be thought only if it affects the subject, affects her in such a way as to be represented by her. Thinking an independent object depends on a receptive representation of the object. The object of theoretical thought is something given through the senses or, in Kant's terminology, a sensory intuition. Hence, as the intellect determines the

object, thinking it according to a certain form, it determines what is given through the senses. The category contains the determination of sensory intuition as being such as to be represented according to the form of thought. This is Kant's explanation of the categories:

> Vorher will ich nur noch die Erklärung der Kategorien voranschicken. Sie sind Begriffe von einem Gegenstande überhaupt, dadurch dessen Anschauung in Ansehung einer der logischen Funktionen zu Urteilen als bestimmt angesehen wird. (B 128)[5] Nun sind aber Kategorien nichts andres, as eben diese Funktionen zu urteilen, so fern das Mannigfaltige einer gegebenen Anschauung in Ansehung ihrer bestimmt ist. (B 143)

Categories are not empirical concepts. They do not derive from sensory affection; the intellect supplies them from itself. One applies a category in thinking thoughts of the corresponding form, and as the logical form characterizes thought as thought, one applies the category if thinking it is what one does. Hence, the determination of the object by the category cannot depend on sensations one receives from an object. In Kant's terminology, the category determines the object purely. An exposition of the content of the category articulates pure knowledge of the object affecting one's sensibility, knowledge of the object affecting one's sensibility that yet does not depend on what one receives from the object as it affects one's sensibility.

Frege accepts this. His interest is in mathematics, but the form of thought the concept-script exhibits is to be not only the form of mathematical knowledge, but also the form of empirical knowledge. This means that the intellect determines what is given in intuition as such as to be represented according to that form. The determination is pure: it is pure knowledge of what holds true of what is given through the senses in virtue of its falling under the Fregean categories.

The inferentialist conception of logical form says that general logic can give a complete account of logical form; it can account for the content of the category. But then it can account for the pure knowledge of the object that is that content. And then general logic is transcendental, as Kant defines the term:

> Und hier mache ich eine Anmerkung [. . .]: dass nicht jede Erkenntnis a priori, sondern nur die, dadurch wir erkennen, daß und wie gewisse Vorstellungen [. . .] a priori angewandt werden, oder möglich sein, transzendental (d. i. die Möglichkeit der Erkenntnis oder der Gebrauch derselben a priori) heißen müsse. (B 80)

Transcendental logic investigates how the intellect is a source of pure knowledge. It shows how the intellect determines its object purely, that is, solely with regard to the form of thought. Hence, the inferentialist conception of logical form denies that there is space for a transcendental logic distinct from general logic; general logic is transcendental. But general logic cannot be transcendental. It cannot explain how the intellect determines the object a priori.

An object given in intuition does not have its origin in the intellect. It exists independently of being thought, while the forms of thought have their origin in the intellect; they are not derived from the object. This makes it hard to see how the

forms of thought can, as Kant puts it, meet the object (B 124). But it is not only hard but impossible to comprehend this, if the form of thought is nothing other than the deductive order of a suitable totality of thoughts. In this case, an account of logical form abstracts from the relation of thought to what is given in sensory intuition and considers only the relations of thoughts among themselves. But if we can give a complete account of a certain character of thought while abstracting from the fact that thoughts represent something given through the senses, then this account will not explain how that character of thought determines the object of the senses. Transcendental logic cannot abstract from the relation of thought to the object, and this is, in theoretical thought, sensory intuition, for it inquires how thought is a priori related to sensory intuition, determining it a priori by its form.

General logic cannot on its own account for the form of thought. It depends on transcendental logic, which is distinct from it, and from which it must receive an account of its topic. For, the intellect is a power to represent objects, and since it cannot represent an object unless it can determine it a priori by its own form, transcendental logic, explaining how the intellect determines the object purely, reveals the ground of the possibility of the intellect, and a fortiori the ground of its general-logical employment (B 131, 137).

3. QUINE

3.1. QUINE'S EMPIRICIST ACCOUNT OF LOGICAL FORM

We began our discussion of Frege with a quotation that shows him to think of the laws of logic as laws that govern thought as such and thus define the intellect. Then the forms of thought and the categories, having their source in these laws, are not received from the object; rather, the intellect supplies them from itself. And then the form of thought must determine the object a priori, if it is to be possible to represent the object according to this form, and this is, if it is to be thought of which this form is the form, for thought is a manner of representing the object. This in turn entails that general logic cannot give a complete account of logical form. For, abstracting from the relation of thought to the object and attending only to relations thoughts bear among themselves, general logic cannot explain how the intellect determines the object a priori.

Now, we can hold on to the idea that laws of inference are the principle of logical form and deny that we need a transcendental logic distinct from general logic in order to understand the possibility of the latter, if we deny that the intellect determines the object a priori by its form. And this we can deny if we reject the idea that the intellect supplies the form of thought from itself. We must hold, then, that there is no such thing as laws of logic as Frege understands them. There are no laws that govern thought as thought, and thought as thought bears no form at all.

This is the view of W. V. O. Quine. He argues that the categories of Fregean object and concept are introduced as a suitable inferential order is imposed upon a given totality of sentences. This order does not characterize thought as thought, but is an empirical hypothesis. It follows that forms of thought and categories, conceived in the inferentialist way, do not determine the object a priori, but on the basis of sensation. It will help briefly to sketch how, according to Quine, logical form is an empirical hypothesis.[6]

At the fundamental level of language and thought, there are observation sentences, sentences that a differential responsive disposition ties to certain stimuli: a speaker assents to the sentence when and only when she receives stimuli of a certain sort; she dissents from the sentence when and only when she receives stimuli of a certain other sort. Then observation sentences are conjoined by the connective "__ whenever __" to yield observation categoricals. An observation categorical expresses the speaker's association of the stimuli connected with the observation sentences it conjoins; it expresses her having come to expect to suffer a certain kind of stimulus when she suffers a certain other kind.[7] An observation categorical no longer directly expresses what is given to the senses; acceptance or rejection of it does not depend on current stimuli. It is an empirical hypothesis, which is corroborated by stimuli if, in the past, stimuli that cause assent to the one observation sentence often concurred with stimuli that cause assent to the other. Next, inferential relations are imposed upon observation categoricals. We can think of these as made explicit in conditionals; then imposing them takes the form of assenting to suitable compound sentences. Inferential relations, or compound sentences expressing them, go beyond what is given to the senses. They are corroborated if they yield corroborated observation categoricals. In a fourth step, a certain structure is imposed on these inferential relations, the structure represented by the predicate calculus. Again, this form exceeds the testimony of the senses. It is a very general hypothesis, corroborated if and to the extent that it licenses corroborated observation categoricals. In this way, the deductive order that constitutes the articulation of thoughts caught up in this order is not supplied by the intellect from itself. It is received from the object in the sense that its validity of the object is a hypothesis, which is corroborated as it yields observation categoricals corroborated by stimuli tied to observation sentences conjoined in these categoricals.

Quine saves the inferentialist conception of logical form by denying that thought as thought bears any form. On the fundamental level, thinking a thought is using an observation sentence, and observation sentences as such, that is, insofar as assent and dissent to them is prompted by stimuli from a certain range, are not articulated. Their articulation comes from above, from an order that links observation categoricals according to laws of inference. This order, and with it the form of thought to which it gives rise—for example, the articulation of its object into Fregean object and concept—is an empirical hypothesis. It is corroborated by stimuli without circularity because the nexus of observation sentences with stimuli is independent of the hypothesis.

Quine supposes that acts of using observation sentences are judgments. But this is false. A judgment, as such, is correct or incorrect; the peculiar kind of this correctness earns it a special name, "truth". The correctness, truth, of a judgment does not depend on who made it and when and where. Moreover, this correctness is such that she who judges conceives of her judgment as correct in this manner. That is, the power of judgment supplies its subject with this idea of correctness. (Frege expressed this insight by saying that any thinker as such is familiar with two objects: the true and the false.[8]) If we connect this with the first point, it follows that, in judging, I represent my judgment as an act in which any judging subject anywhere and anytime is to join me. I judge for everyone. Another way of describing the kind of correctness that pertains to judgment is saying that it depends, not on who made the judgment and where and when, but on how things stand with its object. These are two ways of describing the same character of judgment: valid for everyone, and valid of the object. I reach out to the object reaching out to everyone and I reach out to everyone reaching out to the object.

An act of using an observation sentence lacks this character of judgment. Even holding time and place constant, when I use a certain observation sentence then and there, it is not necessary that another subject is prompted to use the same observation sentence, or that, if she is not, she is using the sentence she is prompted to use incorrectly. When indeed another subject is prompted to use the same sentence as I am using, then this will have an empirical explanation. (Perhaps it is explained by the fact that we have undergone the same linguistic training. Of course, whether, conceived in this way, the training merits the title "linguistic", is the point at issue.) The explanation will be empirical, that is, the subject cannot reach it by reflecting on the nature of her act. An act of using an observation sentence does not supply its subject with the notion of a unity of subjects bound to the same standard; equivalently, it does not supply the subject with the notion of an object of which the act is valid. This proves that the act is no judgment.

One might try saying that an act of using an observation sentence becomes a judgment when observation sentences are joined in observation categoricals. But as Quine explains, an observation categorical expresses the subject's habit to associate stimuli tied to the sentences it joins. It will not be necessary that, but require an empirical explanation if subjects are in agreement with regard to these habits.

Perhaps using an observation sentence becomes judging when observation categoricals are joined by inferential relations. But terms of inferential relations are judgments. Until we have established that an act of using an observation categorical is a judgment, we cannot say that relations among them are inferential. We must describe the relations (which are to turn out to be inferential relations as their terms turn out to be judgments) in a way that leaves it open whether their terms are judgments. But then these acts figure in these relations at best as acts of sensibility, responses to stimuli.

In Quine's theory judgment nowhere appears. Using an observation sentence is not judging; therefore neither is any act further up that joins and integrates observation sentences. Of course one may claim that there is no such thing as judgment; there is nothing that answers to its formal description: an act that is, and is understood by its subject to be, valid of an object, or, equivalently, valid for any subject. But claiming this is denying a reality of human life, denying it because one finds oneself incapable of comprehending its possibility, which is a fallacious manner of reasoning. However, this is true: we do not understand the possibility of the intellect as long as we do not comprehend how it can determine its object a priori. For, the possibility of the intellect depends on its power to think the object purely, its power to yield pure knowledge of the object.

4. KANT

If the intellect determines the object—and this is, what is given in sensory intuition—a priori, then the sensibility of a thinker is *always already* determined by the form of thought, and what is given in sensory intuition as such bears the unity expressed by the category. Hence, transcendental logic, explaining how the intellect thinks the object purely, renounces the empiricist notion that logical articulation is external to the deliverances of our sensibility. At the same time, it rejects the inferentialist conception of logical form, which seeks its principle in relations of thoughts among themselves. By contrast, transcendental logic describes the form of thought as the manner in which it relates, and thus relates purely, to the object.

Kant divides the Transcendental Logic into the Analytic of Concepts and the Analytic of Principles. The former shows how the category determines a priori what is given in intuition, while the latter develops the pure knowledge that springs from this determination. The heart of the Analytic of Concepts, the Transcendental Deduction, is again divided into two parts. The first shows that the category is nothing other than the pure concept of an object of thought given through the senses; the second shows that the category, the pure concept of an object of thought given in intuition, applies to the deliverances of our sensibility. I shall first give an account of the Deduction, then explain how it treats the form of thought as a manner of relating to an object.

4.1. THE DEDUCTION

The first part of the deduction applies a general thought of Aristotle's *De Anima*, that there is an inner unity of an act of the soul and its object by which the latter is the kind of thing to be an object of an act of this kind. Kant applies this to judgment: the intellect determines its object as the kind of thing that can be an object of that kind of act. We already encountered the relevant character of judgment in the discussion of Quine. A judgment is capable of a special kind of correctness: it

is correct independently of who is its subject, and it is put forth by its subject as thus correct. A subject, in judging, represents herself as *the* judging subject; in judging, she assumes the place of everyone. We describe the same character of judgment when we say that the subject conceives of her judgment as representing an object. Now, the power of judgment supplies its subject with this conception of judgment. So this conception is not received from the object of the act, but *contained in the nature of the act.* It is contained in the form of judgment. Hence, the most general description of the form of judgment, of the way of joining elements in a judgment, is that joining elements in this way is representing an object. The unity of judgment is the unity by which it represents, and is conceived as representing, an object. It is the objective unity of apperception.

> Wenn ich aber die Beziehung gegebener Erkenntnisse in einem Urteil genauer untersuche, [. . .] so finde ich, daß ein Urteil nichts anderes sei, als die Art, gegebene Erkenntnisse zur objektiven Einheit der Apperzeption zu bringen. [. . .] Dadurch allein wird aus diesem Verhältnisse ein Urteil, d. i. ein Verhältnis, das objektiv gültig ist. (B 141–42)

The categories determine the object with regard to this unity, the objective unity of apperception. It follows that they characterize the object as such as to be an object of an act that has the character of judgment: an act universally, or objectively, valid, conceived by its subject as so valid. Therefore, there is no room for doubting that the object of which we seek knowledge falls under the categories. Something not under the categories is, at best, an object of a lower faculty, a faculty that does not yield acts that are, and are put forth by its subject as, universally, or objectively, valid. Something not under the categories is not an object *for the subject* in the way in which the object of a judgment is: being understood by her as that of which the act is valid, or as that in relating to which she is joined to any subject.[9]

This is the first part of the Deduction. It is only a first part because, although it shows that intuitions that present the intellect with an object as such fall under the categories, it does not yet show that our sensory intuitions present the intellect with an object, as they must if there is such a thing as the intellect in us. The first part of the deduction does not yet show this because it abstracts from the manner in which something is given to us through the senses. It abstracts from our form of intuition.

> Im obigen Satz ist also der Anfang einer Deduktion der reinen Verstandesbegriffe gemacht, in welcher ich, da die Kategorien unabhängig von der Sinnlichkeit bloß im Verstande entspringen, noch von der Art, wie das Mannigfaltige zu einer empirischen Anschauung gegeben werde, abstrahieren mußte, um nur auf die Einheit, die in die Anschauung vermittels der Kategorie durch den Verstand hinzukommt, zu sehen. In der Folge (§ 26) wird aus der Art, wie in der Sinnlichkeit die empirische Anschauung gegeben ist, gezeigt werden, daß die Einheit derselben keine andere sei, als welche die Kategorie nach dem vorigen § 20 dem Mannigfaltigen einer gegebenen Anschauung überhaupt vorschreibt,

> und dadurch also, daß ihre Gültigkeit a priori in Ansehung aller Gegenstände unserer Sinne erklärt wird, die Absicht der Deduktion allererst völlig erreicht werden. (B 144–45)

If our intellect is to think purely what is given to us in sensory intuition, then our sensibility must give it something to think purely. Our sensory intuitions must contain something that can be thought purely. This cannot be the sensations that one suffers being affected by the object, for then the determination would not be pure. What is given to the intellect as something that can be thought purely must be supplied by our faculty of sensibility itself; it must be something that is contained in any intuition in virtue of its being an act of this faculty. Kant calls this the form of intuition.

> Weil in uns aber eine gewisse Form der Anschauung a priori zum Grunde liegt [. . .] so kann der Verstand [. . .] den inneren Sinn durch das Mannigfaltige gegebener Vorstellungen der synthetischen Einheit der Apperzeption gemäß bestimmen. (B 150)

The form of intuition is that by virtue of which intuitions can be thought purely. As Kant says: the intellect can determine a priori our sensibility *because* our intuition bears a certain form. We may call what is thought when intuitions are thought purely, the content of the pure thinking of intuitions, a *pure intuition.* This is how Kant employs these terms: form of intuition and formal, or pure, intuition.

> Der Raum, als Gegenstand vorgestellt [...] enthält mehr, als bloße Form der Anschauung, nämlich Zusammenfassung des Mannigfaltigen, nach der Form der Sinnlichkeit Gegebenen, in eine anschauliche Vorstellung, so daß die Form der Anschauung bloß Mannigfaltiges, die formale Anschauung aber Einheit der Vorstellung gibt. Diese Einheit hatte ich in der Ästhetik bloß zur Sinnlichkeit gezählt, um nur zu bemerken, daß sie vor allem Begriffe vorhergehe, ob sie zwar eine Synthesis, die nicht den Sinnen angehört, durch welche aber alle Begriffe vom Raum und der Zeit zuerst möglich werden, voraussetzt. Denn da durch sie (indem der Verstand die Sinnlichkeit bestimmt) der Raum und die Zeit als Anschauungen zuerst gegeben werden, so gehört die Einheit dieser Anschauung a priori zum Raum und der Zeit, und nicht zum Begriff des Verstandes. (B 161, fn.)

Space and time, pure intuitions, are given as the intellect, applying the categories to our sensibility, determines it purely. Independently of this application of the pure concepts to what is given in intuition, no pure intuition is given, for *a pure intuition is what is thought when what is given in intuition is thought purely.* Therefore, although the unity of the pure intuition requires the application of the categories to sensory intuition, this unity does not belong with the concept of the intellect. It is the content of the categories, which the intellect does not supply from itself, but receives as our sensibility gives it something it can think purely.

The intellect can determine our intuitions a priori because they present it with something to think purely, their form. Therefore, there is no room for asking

whether a given intuition might fail to fall under the category. The category determines intuitions purely, that is, independently of their matter. Hence, the idea that the category determines some of our intuitions, but not others, is incoherent; these intuitions could be distinguished only by their matter, on which the applicability of the category cannot depend. Our intuitions can be determined purely with regard to their form, which does not depend on sensation. This completes the transcendental deduction.

Our account of the Deduction might invite the following objection: We said in the first section that the category determines the object solely *with regard to the form of thought.* Now we say that, in its application to our sensibility, the category determines what is given in intuition solely *with regard to the form of intuition,* that is, solely with regard to their being in time. Are we confusing the form of thought with the form of intuition? No. We are saying that, since thinking purely what is given in intuition is thinking it with regard to its form, the form of thought in its application to our sensibility is nothing but the form of our intuitions, in saying which we are echoing Kant.

> In der Folge wird aus der Art, wie in der Sinnlichkeit die empirische Anschauung gegeben wird, gezeigt werden, daß die Einheit derselben keine andere sei, als welche die Kategorie nach dem vorigen § 20 dem Mannigfaltigen einer gegebenen Anschauung überhaupt vorschreibt. (B 144–45)

A pure determination of sensory intuitions determines them solely with regard to their form. In our case, this form is time. Thinking sensory intuitions purely, we think them only with regard to their being temporal; we deploy a *pure concept of something in time.* The pure concept of something in time is the content the category acquires in its application to our intuitions. Kant calls the category, so applied, the schema. As the category, applied to our intuition, acquires a determinate content, the form of thought acquires a determinate character. It is the form of thinking the temporal in the sense that what is thought according to this form is, in virtue of being so thought, represented as temporal.

4.2. THE FORM OF THOUGHT AS THE MANNER IN WHICH IT RELATES TO THE OBJECT

We can now see the Transcendental Logic developing a conception of logical form that seeks its principle not in the relations thoughts bear among themselves, but in the relation of thought to the object. It is not that the inferentialist conception denies that the intellect is a power to represent the object. It denies that the relation of thought to the object is the source of its form. An account of the form of thought abstracts from its relation to the object. Of course the object, being thought, exhibits this form. But this is a second thought, that we come to think only after we have explained logical form. Now, thinking of the intellect in this way makes it impossible to understand how it can determine a priori an object that exists independently of being thought.[10] If the relation of thought to the object is introduced

only after its form has been explained, then it is too late: then the form of thought cannot be shown to be the form of the object. But then we do not understand the very possibility of the intellect as a power to represent the object. So we must explain logical form *as* a manner of relating to the object. Then it is not a second thought that the form of thought determines the object, but that is contained in the account of logical form.

In § 10, Kant draws attention to the fact that the form of judgment determines the object given in intuition. The category contains that determination: "Dieselbe Funktion, welche verschiedenen Vorstellungen in einem Urteile Einheit gibt, die gibt auch der bloßen Synthesis verschiedener Vorstellungen in einer Anschauung Einheit, welche, allgemein ausgedrückt, der reine Verstandesbegriff heißt." (B 104–5) As Kant puts it later, the categories *are* the forms of judgment insofar as what is given in sensory intuition is determined in respect of them.[11] This makes it clear that an account of the form of judgment cannot attend only to relations thoughts bear among themselves. It is true, forms of judgment appear in general logic, and we first find them there. But this does not mean that general logic can by its own means explain what the form of judgment is.

In § 19, Kant writes:

> Ich habe mich niemals durch die Erklärung, welche die Logiker von einem Urteile überhaupt geben, befriedigen können: es ist, wie sie sagen, die Vorstellung eines Verhältnisses zwischen zwei Begriffen. [Ich] merke [. . .] nur an, daß, worin dieses Verhältnis bestehe, hier nicht bestimmt ist. Wenn ich aber die Beziehung gegebener Erkenntnisse in jedem Urteile genauer untersuche, und sie, als dem Verstande angehörige, von dem Verhältnis nach Gesetzen der reproduktiven Einbildungskraft [. . .] unterscheide, so finde ich, daß ein Urteil nichts anderes sei, als die Art, gegebene Erkenntnisse zur objektiven Einheit der Apperzeption zu bringen." (B 140–41)

The logicians here are general logicians. They can give no satisfactory account of the form of judgment. At best they could say, as Robert Brandom does in *Making It Explicit,* that the unity of a judgment is the unity of what can be a premise and a conclusion of an inference. But this answer is unsatisfactory, for it opens up no path to an account of how what is given in intuition can be determined a priori by the form of judgment. Instead, the form of judgment must be the unity by virtue of which judgment relates to the object in the manner that defines the intellect and distinguishes it from lower powers of representation ("wenn ich sie, *als dem Verstande angehörige,* unterscheide"). Kant identifies the form of judgment with its relation to the object.

There is a further step. According to Kant, the intellect cannot relate to the object immediately, but only through representations that spring from a receptive faculty. The relation of thought to the object is its relation to what is represented in acts of such a faculty. Hence, an account of the form of thought that reveals it to be the way in which it relates to the object is an account of the form by which it relates to what is represented in acts of a receptive faculty. Again, it must not be a second

thought that what is given in acts of the receptive faculty in question is thought according to a form that on its part is explained independently. Rather, that must transpire from the account of that form. As what is given in acts of our receptive faculty as such is temporal, a complete account of logical form reveals it to be the form of thinking the temporal, where "the temporal" does not signify a matter that is thought according to this form, but describes the form as form.

If the form of thought, as it applies itself to the deliverances of our sensibility, is the form of thinking the temporal, then this explains how the intellect is a power of pure knowledge. In thinking intuitions purely, we deploy the pure concept of something in time. Articulating what this concept contains, we say what holds true of an object in virtue of being temporal. We develop the pure knowledge of what is given in our sensory intuition, whose form is time.[12] This depends on the fact that "the temporal" specifies the form of thought as form. If, in "form of thinking the temporal" or "pure concept of the temporal", "the temporal" specified a matter that is thought according to a certain form and brought under the corresponding category, then we would know that the intellect must determine the temporal a priori by its form, but our conception of logical form would not show how this can be.

If the intellect is possible at all, then it purely determines the object according to its form. Hence, a description of the form of thought that reveals the ground of the possibility of the intellect reveals it to be a manner of relating to the object. Kant aims to give such a description: as the intellect determines sensibility a priori, the category acquires a specific content, or the form of thought a specific character. The content is the pure concept of something in time; the form is the form of thinking the temporal. Since the intellect relates to the object only through acts of a distinct faculty, the character of logical form as a manner of relating to the object is not provided by the intellect alone, but only through its a priori relation to this distinct faculty, which further entails that the intellect is not the complete ground of its own possibility. One may be critical of this manner of carrying out the task of transcendental logic. Hegel attacks Kant for thinking of the intellect as impotent in this way. Here is not the place to discuss his criticism, or to consider the transformation transcendental logic undergoes when it develops the form of thought as its relation to the object without appealing to an independent faculty of intuition.[13] Our interest is in the point Hegel takes over from Kant, that an account of logical form cannot be provided by general logic alone. For, the form of thought must be shown to determine the object a priori, which it can be shown to do only if this form is understood to be a relation to the object.

5. THE FIRST ANALOGY

When we describe the form of thought in its application to intuitions whose form is time, that is, when we articulate the content of the category in this application, the pure concept of something in time, then we develop the pure knowledge that

arises from the a priori determination of our sensibility by the intellect. The Principles of the Understanding, the most fundamental pure synthetic propositions, describe the object with regard to a form of thinking: they say what we know of the object thinking it according to this form. The relevant form is not the form of thought as described by general logic, in abstraction from the relation of thought to an object. It is the form of thinking sensory intuitions, in our case the form of thinking the temporal. In the Principles, the relation of thought to what is in time is exhibited as a principle of its form. We show this in an exemplary fashion by reading the First Analogy.

5.1. THE EPISTEMOLOGICAL INTERPRETATION

The Analogies describe the form of thinking by which something is represented as temporal, a logical form that lies outside the purview of general logic because it cannot be explained in terms of inferential relations. Now, we said contemporary Kant exegesis approaches the text unconsciously relying on the inferentialist conception of logical form. In consequence, its interpretation of the Analogies goes awry because it lacks the concept of their topic: the form of thought of the temporal.

According to the usual reading, the Analogies show how we can ascertain temporal relations of what is given in sensory intuition. Béatrice Longuenesse explains why this would seem difficult:

> Kant's reasoning concerning the role of the category of substance in our perception of objective temporal relations is most explicit in the second paragraph of the First Analogy in A. The paragraph opens with a reminder of the ever successive character of our apprehension, which makes impossible any direct perception of objective simultaneity or succession. By thus breaking the deceptive familiarity of temporal relations, [...]. We believe that we perceive the succession or simultaneity of the states of things. Actually, all we perceive (apprehend) is the succession of our representations, whereas the simultaneity and succession in states of things are not directly perceived. (*Kant and the Capacity to Judge*, 334–35.) All we perceive is the subjective succession of our perceptions. (Ibid., fn.)

Kant is said to hold that we cannot perceive that one thing is simultaneous with or succeeds another. Of course, nothing is more familiar: I heard the French horn coming in simultaneously with the clarinet, and I saw Petacchi crossing the finish line before Zabel. But Longuenesse tells us that this familiarity is deceptive and that Kant saw through it. We believe that we perceive succession or simultaneity, but in truth we do not. Now indeed, if we cannot perceive that one thing is simultaneous with or succeeds another, it is hard to see how we could know this. What if not perception could be the source of such knowledge? Longuenesse answers:

> The representation we have of objective simultaneity and succession is the result of the way we interpret the succession of perceptions in our apprehension. Now this interpretation, together with the resulting dis-

> tinction between simultaneous and successive, is possible only if we relate the representations we apprehend successively to a permanent substratum. (Ibid., 335)

There is direct and there is indirect perception. We directly perceive the succession of our perceptions. On this basis, we cannot determine the temporal relations of what we perceive; in order to do that, we must go beyond what we perceive. So we do, interpreting our perceptions according to certain principles, thereby fixing temporal relations of what we perceive, which thus we perceive indirectly, by way of the interpretation. The Analogies are the principles that govern this interpretation. For example, the First Analogy tells us to interpret our perceptions as belonging to a permanent substratum. When we interpret our perceptions in this way, we indirectly perceive the substratum.

Paul Guyer propounds the same reading.

> So the fact that the represented states of affairs succeed one another in a determinate order [...] cannot be inferred from the successive occurrence of the representations of those states of affairs. [...] The underlying premise of Kant's argument, then, is precisely that [...] objective temporal relations are not simply given in passive apprehension. [...] But the temporal order of the objective states of affairs cannot be determined by any direct access to the objects either, for it is of course only *by* the representations that the objects are given.
>
> So Kant's idea is that no alternative remains but that the occurrence of an event be inferred by *adding* to the omnipresent succession of mere representations a *rule* from which it can be inferred that in the circumstances at hand *one state of affairs could* only succeed the other. (*Kant and the Claims of Knowledge*, 244 and 248)

Guyer explains that from the succession of our perceptions we cannot infer the temporal relations of what we perceive. Evidently he supposes that we do not perceive these relations; if we did, there would be no need to infer them. However, the inference would not be possible, did we not deploy certain rules that constrain its conclusion. The Analogies are these rules.

Even without confronting this interpretation with the text, we know it is false, for it makes it a mystery how Kant could have thought that the Analogies articulate knowledge of the object, as opposed to habits of the subject. Suppose there are principles by means of which we derive from the order of our perceptions a certain other order of these perceptions. This derived order is objective and is the temporal sequence of the objects we perceive only if the principles in question are necessarily true of the objects we perceive. But according to the given reading, this cannot be shown. It is *not* shown by saying that only through these principles can we determine an objective temporal order. For the question is why that order should merit the title "objective".

The usual reading thus finds it difficult to distinguish Kant's position from Hume's. Longuenesse describes the difference as follows:

> Kant's description of the 'permanence of the real in time' as the result of a synthesis of imagination is certainly reminiscent of Hume's argument to the effect that the idea of substance [...] is a concoction of imagination. Yet Kant reverses Hume's skeptical view in two respects. First, he defines the transcendental synthesis of imagination as an "effect of the understanding on sensibility," and thus defines the relation between substance and accident in appearances not merely as the result of the empirical associations of imagination, but also as the result, first and foremost, of an a priori rule of synthesis guiding these associations in order to reflect them under concepts according to the logical form of categorical judgments. Second, Kant argues that the presupposition of a permanent substratum of transitory determinations is itself not a result [...], but a *condition* for perceiving the objective change as well as the objective simultaneity of sensible qualities that is, a condition for precisely those temporal relations no skeptic has put into doubt. (*Kant and the Capacity to Judge*, 334)

Longuenesse says that Kant "defines" the transcendental synthesis of the imagination as an "effect of the understanding on sensibility". But it is no good to define it thus and go on and describe it in a way that shows it to be "the result of the empirical associations of imagination". Further, she says that Kant shows that "the presupposition of a permanent substratum of transitory determinations" is a condition "for perceiving the objective change as well as the objective simultaneity of sensible qualities", which she thinks are "precisely those temporal relations no skeptic has put into doubt". However, without the "presupposition" of substance, no sense can be given to the notion of objective change of sensible qualities. By Hume's lights, the notion of an objective change of qualities distinct from a succession of impressions is every bit a reflection of habits of association as the concept of substance itself. Objective change of sensible qualities is precisely the temporal relation the skeptic has put into doubt.

According to the usual interpretation, the Analogies show how we can know that one thing is simultaneous with or succeeds another, given that we cannot perceive this. If there were such a question, it would be intractable. Nothing could answer it, a fortiori not the Analogies. But there is no reason to think that the Analogies address this question. Kant says repeatedly and unequivocally that we perceive that things are simultaneous with or succeed one another. For example, the Transcendental Aesthetic argues that the form of intuition is time, that is, what is given in intuition, as so given, is represented as standing in temporal relations.[14] One argument to this effect is the following:

> Die Zeit ist kein empirischer Begriff, der irgend von einer Erfahrung abgezogen worden. Denn das Zugleichsein oder Aufeinanderfolgen würde selbst nicht in die Wahrnehmung kommen, wenn die Vorstellung der Zeit nicht a priori zum Grunde läge. Nur unter deren Voraussetzung kann man sich vorstellen: daß einiges zu einer und derselben Zeit (zugleich) oder in verschiedenen Zeiten (nach einander) sei. (A 30/B 46)

Kant says we could not perceive that things are simultaneous with or succeed one another—simultaneity and succession would not enter into perception, that is,

would not be perceived—if we did not already represent time. He infers that the representation of time is provided by the form of our intuition. So Kant argues: X, because only if X can we perceive that things are simultaneous with or succeed one another. Such an argument could not be made by someone who thought that we cannot perceive that things are simultaneous with or succeed one another.

Not only the presupposition of the question that the usual reading assigns to the Analogies, but also the answer to this question it claims to find there is contradicted by the text. According to the usual reading, we do not directly perceive that things stand in temporal relations; we indirectly perceive this as we interpret our perceptions and draw inferences from them. For example, we interpret our perceptions as belonging to a substance. We do not perceive this substance; the substance is a construction of an interpretation, or the conclusion of an inference. But the text says:

> Folglich muß in den Gegenständen der Wahrnehmung, d.i. in den Erscheinungen, das Substrat anzutreffen sein, welches die Zeit überhaupt vorstellt. [. . .] Es ist aber das Substrat alles Realen [...] die Substanz. (B 225)

Kant does not say, we must be able to infer from our perceptions a substance to which they belong. He says, we must be able to *encounter* the substance *among the objects of perception.*

The usual reading sees the Analogies addressing a difficulty that does not exist, not according to Kant; it interprets the Analogies as giving an answer that, if the difficulty existed, would not solve it; and this alleged answer contradicts the text. This interpretive failure requires an explanation. The explanation is that the interpreters invent an imaginary topic for the Analogies because they lack the concept of their true topic.

5.2 THE LOGICAL INTERPRETATION

The topic of the Analogies is not epistemological: they do not ask how we can know that things stand in certain temporal relations. They have a logical topic, as befits a part of the transcendental logic: they describe the logical articulation by which thought represents something as temporal, that is, as the kind of thing that stands in temporal relations. The question is not how we find out that a thought of the following kind is true: "__, and then __", or, "__ while at the same time __". The question is what is the logical form of a thought that can fill the blanks in these schemata.

The Deduction showed that the intellect determines the object given through the senses, thinking it purely with regard to its form, which in our case is time. As the form of our intuition is time, the form of thinking an object, applied to our intuitions, is the form of thinking the temporal. This describes it as form: what is thought according to this form is, in virtue of being so thought, represented as temporal. The Analogies say what we know of an object, thinking it through this form.

The First Analogy reads as follows:

> Alle Erscheinungen enthalten das Beharrliche (Substanz) als den Gegenstand selbst, und das Wandelbare, als dessen bloße Bestimmung, d. i. als eine Art, wie der Gegenstand existiert. (A 182)

All appearances contain two elements: something that persists and something that changes. More precisely, all appearances contain what persists *as the thing* and what can change *as a way in which the thing exists.* Kant calls the persisting thing a *substance* and its changing determination a *state.* So the necessary articulation of appearances, of what is given in intuition, is *a form of predication:* its elements are a thing and how this thing is (A187/B 230). Here is Kant's proof of this theorem.

> (1) Alle Erscheinungen sind in der Zeit, in welcher, als Substrat [...] das Zugleichsein sowohl als die Folge allein vorgestellt werden kann. (2) Die Zeit also, in der aller Wechsel der Erscheinungen gedacht werden soll, bleibt und wechselt nicht; weil sie dasjenige ist, in welchem das Nacheinander- oder Zugleichsein nur als Bestimmungen derselben vorgestellt werden können. (3) Nun kann die Zeit für sich nicht wahrgenommen werden. (4) Folglich muß in den Gegenständen der Wahrnehmung, d.i. in den Erscheinungen, das Substrat anzutreffen sein, welches die Zeit überhaupt vorstellt, und an dem aller Wechsel oder Zugleichsein durch das Verhältnis der Erscheinungen zu demselben in der Apprehension wahrgenommen werden kann. (5) Es ist aber das Substrat alles Realen [...] die Substanz, an welcher alles, was zum Dasein gehört, nur als Bestimmung kann gedacht werden. (B 224–25, my numbers.)

Let us go through the proof sentence by sentence. (1) Kant recalls a claim of the Transcendental Aesthetic, that the representation of time precedes the representation of temporal relations because, as Kant puts it in *De mundi sensibilis atque intelligibilis forma et principiis*, "*post* se invicem [sunt], quae existunt *temporibus diversis,* quemadmodum *simul* sunt, quae existunt *tempore eodem*," so that "quid significet vocula *post,* non intellego, nisi praevio iam temporis conceptu."[15] Being after one another is being at different times; being simultaneous is being at the same time. We can understand this as follows. I do not perceive that *A* is after *B* simply by first perceiving *A* and then perceiving *B*. A sequence of perceptions is not the perception of a sequence. One may represent the members of a sequence without representing their sequence, that is, the unity of the members. In the case of a temporal sequence, the relevant unity is the unity of time: I represent a temporal sequence only if I represent its members as being in time. It follows that a thought that represents its object as temporal must be articulated; it must distinguish a time from what is at this time.

(2) If one thing succeeds another, they exist at different times, and if two things are simultaneous, they exist at the same time. Kant goes on to say that therefore these things—terms of temporal relations—are represented in time as *determinations of time.* A term *A* of a temporal relation is at a time t_i, and hence is in time. But then *A* determines time in the sense that it determines that part of it, t_i. Hence, the logical form of a temporal thought appears to be "*A* exists in t_i", or "*A* at t_i", or "At_i".

(3) But this is impossible. For time itself cannot be perceived. When one perceives how things are at a certain time, one does not perceive that time. A name of the form "t_i" does not refer to something given in intuition. The use of such names is the result of theory and not part of the basic form of expression of what is given through the senses.

(4) Terms of temporal relations are determinations of time. But one cannot represent something as a determination of a time by referring to this time and bringing it under that determination, "At_i". How then is something represented as being at a time? Kant answers that what is given in intuition—appearances—as such contain something that represents time in the sense that *something is conceived as a determination of time in virtue of being apprehended as a determination of it.* Apprehending *A* and *B* as determinations of this thing, we apprehend *A* and *B* as succeeding, or as simultaneous with, one another.

(5) Kant says all appearances contain an item such that other things are perceived as being temporally related through the relation they bear to it *in the apprehension.* A relation in the apprehension is a *logical relation,* not a real relation; it constitutes the unity of a thought, and is not an element of a thought. It is the unity of a thing and its determinations. So what is given in intuition or what is real insofar as it is capable of standing in temporal relations is a determination of something we encounter in intuition as well, and which is called "substance". We perceive that *A* succeeds or is simultaneous with *B*, as we apprehend *A* and *B* as determinations of time. And we apprehend *A* and *B* as determinations of time, not by predicating *A* and *B* of a time as in "At_1 and Bt_2", but by predicating *A* and *B* of a substance as in "*S* was *A* and is *B*". Temporal thought bears a predicative structure. It is not articulated into a time and what is at this time, but rather into a substance and its states. It is in virtue of being thus articulated that a thought distinguishes a time from what is at this time and thus represents its object as temporal. This completes the proof.[16]

Something is conceived as a determination of time as it is represented as a determination of a substance. When two things are linked to one substance as its determinations, they are represented as exhibiting a certain unity, which is a unity of distinct positions in time.

> [...] das Beharrliche ist das Substratum der empirischen Vorstellung der Zeit selbst, an welchem alle Zeitbestimmung allein möglich ist. Die Beharrlichkeit drückt überhaupt die Zeit, als das beständige Correlatum alles Daseins der Erscheinungen, alles Wechsels und aller Begleitung aus. (A 183/B 226)

The substance represents time empirically, that is, in what is given to the senses. More precisely, the unity of the substance represents the unity of time, because determinations are assigned to a certain time in being said of one substance. A substance can fall first under one and later under a contrary determination. Thus a thought that joins a substance to contrary determinations locates these determinations at different times. It locates the determinations in *one* temporal order because

it is *one* substance that first falls under this, and then under that determination. When we say "*S* was *A* and now is *B*", we represent the same thing as falling under contrary determinations. But the determinations do not determine distinct things as in "At_1 and Bt_2", but one thing. In "At_1 and Bt_2", the letter "*t*" shows that "t_1" and "t_2" refer to members of the same sequence. But the things to which "t_1" and "t_2" refer, and the unity of these, cannot be perceived. Here nothing satisfies "the condition of the empirical unity of time" (A 188/B 231). By contrast, in "*S* was *A* and now is *B*", there is no need to connect two things determined by *A* and *B* respectively, for there is only one thing, the substance, determined by both. Its unity represents the unity of time. In this way is the "condition of the empirical unity of time" satisfied.

Longuenesse and Guyer think we do not, not directly, perceive that one thing succeeds another. We perceive this indirectly as we interpret the succession of our perceptions in a certain way, as "we relate the representations we apprehend successively to a permanent substratum." This entails that we do not perceive, do not directly perceive, substances. Now Kant says very plainly that a substance is perceived. It is crucial to his argument that, in contrast to time, a substance is something we perceive. Substance, says Kant, represents time itself *in appearance.*[17]

6. THE DEPENDENCE OF GENERAL LOGIC ON TRANSCENDENTAL LOGIC

The intellect is a power to represent objects. If the intellect is defined by a certain form, then the intellect represents an object only if it determines the object a priori by its form. Hence, we do not understand the possibility of the intellect, a power to represent objects, unless we comprehend its power to determine the object a priori.[18] But this we cannot comprehend as long as we conceive of the logical form of thought as the way in which thoughts are related among themselves. As general logic cannot account for the power of the intellect a priori to determine the object, it can give no self-standing account of the form of thought. The form of thought must be the way in which it relates to an object. In its being related to the object we must find the principle of its form. The concept of an object is limited, in theoretical philosophy, to the concept of something given in intuition, which, in our case, is something temporal. Hence, we must reveal its form as the manner in which thought relates to something temporal. The First Analogy does that: "*S* was/is *F*" is the form of thought by virtue of which it represents something temporal. The proof of the Analogy shows that this is a form of thinking the temporal, not in the sense that what is thought according to it is in fact temporal, but in the sense that something is represented as temporal as it is thought in this way. Therefore, we have pure knowledge of the temporal, which we articulate when we describe how the object is determined in being thought according to this form.

Since general logic can give no self-standing account of the form of thought, we must turn a common metaphysical practice on its head. Fregean predication is atemporal; therefore, time can appear in the concept-script only as content, "*At*". But this is not the basic form of temporal thought. A thought is temporal, not in virtue of its elements, but in virtue of the unity of its elements. Time-consciousness is not a content of thought, but a form. It is a form of predication that contains a temporal contrast. It is common to seek to fit temporal thought into a Fregean notation. N. L. Wilson claims that temporal thought bears the form "*x* is$_{\text{atemporal}}$ *F*-at-*t*", while David Lewis argues that temporal thought has the form "*x*-at-*t* is$_{\text{atemporal}}$ *F*".[19] But neither "*x*-at-*t* is$_{\text{atemp}}$ *F*" nor "*x* is$_{\text{atemp}}$ *F*-at-*t*" have anything to do with time unless these formulae represent a thought the more fundamental representation of whose form is "*S* was/is *F*". It does not matter whether we represent "Claudius is bent" as "*x* is$_{\text{atemp}}$ *F*-at-*t*" or as "*x*-at-*t* is$_{\text{atemp}}$ *F*". Alleged puzzles about which of these represents the metaphysics of the case are spurious; neither is metaphysically fundamental. Neither lets us see the a priori knowledge of the temporal we have through thinking it.

The elements into which the object is articulated as it is thought according to the form "*S* was/is *A*" cannot be found among the elements into which it is articulated by "*x* is$_{\text{atemp}}$ *F*-at-*t*" or as "*x*-at-*t* is$_{\text{atemp}}$ *F*". N. L. Wilson claims that the values of "*x*" in "*x* is$_{\text{atemp}}$ *F*-at-*t*" are substances. But a substance is the subject of changing states, while "is$_{\text{atemp}}$ *F*-at-*t*" designates a Fregean concept, not a changing state. No content can be given to the idea of something's changing in respect of this determination. In the same way, the values of "*F*" in "*x*-at-*t* is$_{\text{atemp}}$ *F*" are not states, for a state is a determination with regard to which a substance may change. But "*x*-at-*t*" refers to a Fregean object, not to a substance. No sense attaches to the idea of such a thing's changing in respect of its determinations.

One may be tempted to represent the logical form of a temporal thought by the formula, "*x* is-at-*t F*". But this turns the logical copula "is" into a three-place predicate and thus is in effect equivalent to Wilson's proposal. Although the suggestion leads nowhere, it expresses a dim appreciation that the expression of time consciousness is neither a name, nor a predicate, but their nexus, or the form of predication. But this insight cannot be expressed as long as the predicate calculus is assumed to be the appropriate frame for the representation of the logical form of temporal thought.

General logic can give no self-standing account of the form of thought. The forms it represents are forms of thought only to the extent that they are grounded in the form of thought as transcendental logic expounds it. There is such a grounding for elementary Fregean predication. A temporal thought is articulated into a permanent substance and its changing states. The concepts of substance and state describe a kind of predication, which Frege's concept-script does not represent; for, the idea of time is not internal to it. However, we can derive the elementary form of thought of the concept-script from the form "*S* was/is *F*" by abstracting from the temporal contrast. The Fregean form "*Fa*" is not more fundamental than "*S* was/is

F"; it is poorer. An exposition of the origin of the Fregean form in a form of thinking the temporal is part of a complete account of this form. Thus, general logic cannot give a complete account of the categories of a Fregean object and a Fregean first-order concept. The complete account represents a Fregean object as an abstraction from a permanent substance and a Fregean first-order concept as an abstraction from a changing state. These latter concepts lie outside the reach of general logic, for they articulate the manner in which thought a priori relates to what is given in sensory intuition.

NOTES

1. And spatial; but we shall not consider space here.
2. "Der Gedanke", in Gottlob Frege, *Logische Untersuchungen*, G. Patzig (ed.), Göttingen: Vandenhoeck 1993, 50.
3. As transpires from § 19, Erkenntnisse may be judgments as well as concepts. However, as § 19 also makes clear, general logic attends to the relation of concepts in a judgment only in so far as it is relevant to how the judgment is related to other judgments.
4. Cf. Cora Diamond, "Frege against Fuzz", 162.
5. Kemp Smith's translation of this passage is inexplicably inaccurate: "But first I shall introduce a word of explanation in regard to the categories." Kant does not announce "a word of explanation in regard to the categories", but *the explanation of the categories*.
6. We follow Quine's exposition of his view in *The Pursuit of Truth*, chapters 1 and 2.
7. *Pursuit of Truth,* 24: "[An observation categorical is] a generalized expression of expectation." "Empirical Content," 26: "A child may learn the component observation sentences 'Here is smoke' and 'Here is fire' by ostension, and then the compound is an eternal sentence that expresses his having become conditioned to associate the one with the other."
8. "Jeder Behauptungssatz, in dem es auf die Bedeutung der Wörter ankommt, ist also als Eigenname aufzufassen, und zwar ist seine Bedeutung, falls sie vorhanden ist, entweder das Wahre oder das Falsche. Diese beiden Gegenstände werden von jedem, wenn auch nur stillschweigend, anerkannt, der überhaupt urteilt, der etwas für wahr hält, also auch vom Skeptiker." ("Sinn und Bedeutung", in Gottlob Frege, *Funktion, Begriff, Bedeutung*, G. Patzig (ed.), Göttingen: Vandenhoeck 1993, 48.)
9. "Die synthetische Einheit des Bewußtseins ist also eine objektive Bedingung aller Erkenntnis, nicht deren ich bloß selbst bedarf, um ein Objekt zu erkennen, sondern unter der jede Anschauung stehen muß, um für mich Objekt zu werden" (B 137).
10. Of course, we equally do not understand how thinking an object could be the cause of its existence. We neither understand practical nor theoretical thought of an object. But practical thought is not our topic.
11. As quoted above: "Nun sind aber Kategorien nichts andres, als eben diese Funktionen zu urteilen, so fern das Mannigfaltige einer gegebenen Anschauung in Ansehung ihrer bestimmt ist" (B 143).
12. Note that this entails that we know the form of our intuitionwe know what time and space is to the extent that these words designate the form of our intuition, only through the pure determination of our sensibility by the categories. See the passage quoted above: "[. . .] ob sie zwar eine Synthesis, die nicht den Sinnen angehört, durch welche aber alle Begriffe vom Raum und der Zeit zuerst möglich werden, voraussetzt."
13. See my "Eliminating Externality", *International Yearbook of German Idealism 5*, 2007.
14. That the form of intuition is time cannot mean merely that acts of intuiting are temporally ordered. It would not follow from this that the *representation* of time is a priori, which according to Kant is a consequence of the fact that time is the form of intuition.

15. §14.1. Compare *Critique of Pure Reason*, A 30/B 46.
16. We disregard the last sentence of the proof ("Da diese also im Dasein nicht wechseln kann, so kann ihr Quantum in der Natur auch weder vermehrt noch vermindert werden."), which does not pertain to anything stated in the First Analogy in the A-edition. It is a further thought, with its own difficulties, which lie beyond the scope of this essay.
17. Maintaining that Kant believes that we do not perceive substances requires an unusual resistance to textual evidence. Paul Guyer says about the passage, "Die Vorstellung von etwas Beharrlichem im Dasein ist nicht einerlei mit einer beharrlichen Vorstellung; denn diese kann sehr wandelbar und wechselnd sein [...] und bezieht sich doch auf etwas Beharrliches" (BXLIII): "Kant implies that the permanence [...] in empirical objects [...] must be inferred rather than directly perceived" (*Kant and the Claims of Knowledge*, 220). This is not implied. What Kant says is that a representation is of something permanent not by being itself permanent. Upon misreading the passage, Guyer finds it inconsistent with the following annotation of Kant's on the margins of A 183: "Die Warnehmung der Dauer ist nicht durch die Warnehmung der einander folgenden Bestimmungen und des Verhältnisses ihrer Reihe zur Zeit möglich, [...] sondern durch etwas, dessen Existenz keine Reihe von Folgen ist, aber diese als seine Bestimmungen in sich schließt, folglich per duribilitatem der Substanz" (AA 23, p. 31). Kant says, the perception of something permanent is possible, not as a perception of the relation of things that succeed one another in time, but only through the perception of a substance that contains them as its determinations. This does not contradict, but explains the passage Guyer misreads: a representation is of something permanent, not by being permanent, but by being articulated in a certain way. A representation of something permanent exhibits a certain kind of unity, the unity represented by the schema "*S* was/is *A*".
18. It is sometimes suggested that the question how we can represent objects at all is deeper than the question how we can know objects a priori. But these are the same question.
19. N. L. Wilson, "Space, Time, and Individuals", *Journal of Philosophy 52* (1955): 589–98; David Lewis, *On the Plurality of Worlds* (Oxford: Blackwell, 1986), 202 ff.

PHILOSOPHICAL TOPICS
VOL. 34, NOS. 1 & 2, SPRING AND FALL 2006

Kant on the Nature of Logical Laws

Clinton Tolley
University of Chicago

> In logic, however, one must think as if one has no will at all, [otherwise] from this it would become a practical science; we have therefore the science of thinking, and not of willing.
> —Kant, *Vienna Logic* (24:903)[1]

> We cannot think anything unlogical, for otherwise we would have to think unlogically . . . That logic is *a priori* consists in the fact that nothing unlogical *can* be thought.
> —Wittgenstein, *Tractatus Logico-Philosophicus*, §3.03, §5.4731

I.

By most of his readers, Kant is taken to hold that the laws of formal (or what he calls "pure general") logic stand in a very specific sort of relationship to that which is governed by these laws—i.e., our capacity for thinking and reasoning, or what Kant calls our capacity for "understanding as such [Verstand überhaupt]." Béatrice Longuenesse provides an especially clear expression of how this relation is most commonly understood in her recent essay "Kant on *a priori* Concepts."[2] There Longuenesse writes that, like the seventeenth-century Port-Royal *Logique* of Antoine Arnauld and Pierre Nicole, Kant's logic "is not just preoccupied with the way we happen to think, but establishes the norms for thinking *well*" (137). In fact, according to Longuenesse, Kant "is more explicit than they are about the *normative* character

of logic: logic, he [i.e., Kant] says, does not concern the way we think but the way we *ought* to think" (ibid.; my ital.).

In alluding to what "Kant says," Longuenesse is making reference to an oft-quoted passage from the text entitled *Immanuel Kant's Logic: A Handbook for Lectures*, a work prepared by Benjamin Jäsche (at Kant's behest), and published in 1800, at the end of Kant's life.[3] The passage (from the Introduction, §I) reads as follows:

> In logic . . . the question is not about . . . how we do think [denken], but how we *ought* to think [denken sollen] . . . In logic we do not want to know how the understanding is and does think and how it has previously proceeded [verfahren ist] in thought, but rather how it *ought* to proceed [verfahren sollte] in thought. (9:14; my ital.)

And indeed, the presence of the language of "ought" in this passage clearly does seem to indicate that Kant views the relationship which obtains between logical laws and our capacity for understanding along the lines suggested by Longuenesse's reading. That is, the passage strongly suggests that this relation is, as Longuenesse puts it, a *normative* relation. In fact, the passage seems to provide such a straightforward answer to the question of the relation between the laws of logic and their subject matter (thinking), that it is perhaps unsurprising that most contemporary interpreters of Kant are happy to simply repeat or paraphrase the passage with little further comment and move on to other issues.[4]

Let us use the label "normative interpretation" to pick out those interpretations that ascribe to Kant a position in which he takes the logical laws to be *imperatives* for thinking—i.e., laws that tell us how we *ought* to think, or tell us how to think *well*. It is safe to say that the normative interpretation is by far the most common interpretation currently on offer. The reasons for this prevalence no doubt extend beyond the presence of the above statement in Jäsche's text, as the type of position being ascribed to Kant by this standard interpretation is one which has itself enjoyed long-standing appeal. Longuenesse herself refers to the *Logique* of Port-Royal, and throughout the nineteenth century up till the present, it has been quite common for logic textbooks to propound precisely the sort of position these readers wish to ascribe to Kant—namely, one in which logic is taken to provide norms for reasoning, in the sense that its principles (like those of ethics and even of aesthetics, in the eyes of some) are adequately expressed in the language of "oughts."[5] This fact in turn might give a further motivation for the normative interpretation, insofar as Kant's readers might be predisposed to attribute what they take to be philosophically "sensible" views to a thinker whom they admire.

Even so, as I will show in what follows, there is reason for thinking that things are not as simple as this standard reading would have it. For there are actually quite strong reasons for thinking that most versions of this standard normative interpretation will end up being forced to ascribe beliefs to Kant that would be in *direct conflict* with other key Kantian commitments. In fact, I will contend that thorough and systematic reflection—upon both the presuppositions that the normative interpre-

tation would require, and the consequences that such an interpretation would have for our understanding of other aspects of Kant's philosophy—will show that it is actually far from clear that there is any room within Kant's conception of logic for the sort of "ought" that the normative interpretation wants to find in Kant's characterization of logical laws.

I will develop this criticism of the standard interpretation in the following manner. First, I will further specify (in Part II) what is involved in those readings of Kant which I would qualify as putting forward what I am here calling "the normative interpretation," by laying out several general conditions that, according to these readings, must be met for something to count as a "norm" or to be "normative" in the relevant sense. This will enable us to gain a more determinate grasp on what most interpreters appear to have in mind when they use these terms to characterize Kant's own position.[6] I then explore the extent to which Kant's *practical* philosophy provides us with an example of a discipline whose laws satisfy these conditions for being normative (in the sense defined in Part II), most straightforwardly in that Kant takes the laws of morality to function as the fundamental imperatives that are to guide all human volitional activity.

Yet as I go on to argue (in Part III), even in the practical sphere it is far from evident that Kant takes practical laws to be normative *in themselves*. Rather, I argue that Kant appears to hold that such laws function as norms only *in relation to* beings that are not purely rational. That is, moral laws become norms when they are "applied" to beings whose capacities for reasoning are conjoined with other, possibly obstructive forces—such as, in humans, the capacity for "inclination [Neigung], or sensible impulse [sinnliche Antrieb]," as Kant names them in his 1797–98 *Metaphysics of Morals* (6:213; hereafter *MM*). It is only due to the *interaction* within the human mind, between reason and sensible impulses, that we experience ourselves as having the power of "free choice [Willkür]," i.e., the capacity to act both in and out of accord with the moral law (*MM* 6:226), and so experience the moral law as a *norm*.[7]

By this point, then, we will have been given substantial grounds for thinking that, in the case of beings that possess only the capacity for practical reasoning, Kant would *not* take the moral law to be normative (in the sense defined in Part II),[8] but rather would view it as *constitutive* of its essence [Wesen]. I argue that this is implied by Kant's claim in his 1785 *Groundwork for the Metaphysics of Morals* (*GMM*), that to arrive at these laws, we are "to derive them from the concept of a rational being in general [aus dem allgemeinen Begriffe eines vernünftigen Wesens überhaupt abzuleiten]" (4:412).

After saying a bit more about what is meant by "constitutive" in this context, and emphasizing that the relevant meanings of "constitutive" and "normative" show them to be mutually incompatible terms—an opposition in meaning which Kant himself notes—I argue (in Parts IV–VII) that, if there is any analogy to be drawn between logical laws and practical laws, it would have to be drawn at this constitutive level.[9] For logical laws, too, can only be "derived" from a concept of a similarly

"purely rational" sort of being—namely, from the concept of an "understanding in general," considered *in isolation from* every other faculty or "force." As I show in these sections (cf., Part VII), this stems from Kant's partial acceptance of a *Leibnizian* account of the radical independence of "understanding" and its laws, within the mind. Most important for my purposes here, we will see that Kant shares Leibniz's commitment to a picture in which logic considers our capacity for understanding in isolation from the *will*.

I argue, furthermore, that Kant also follows Leibniz insofar as neither's use of the language of "spontaneity" to describe the activity of understanding is meant to introduce any element of "free choice [Willkür]" on the part of the understanding to follow the laws which govern thought as such. I do not, however, close off the possibility that there could be some such "Willkür"-like correlate present in a sphere in which thinking operates in conjunction with an additional (e.g., sensible) faculty. In particular (as I note in Parts V–VI), there are passages which suggest that Kant does appear to leave open the possibility of this sort of "freedom" with regard to acts of "holding-true [Fürwahrhalten]." Yet even if this is so, I show that it in no way implies that Kant takes us to have the "freedom" which would be necessary for the logical laws to function as norms—that is, the freedom to think but to do so *illogically* (Part VI). This last point entails that, unlike in the moral dimensions of human activity (in which we ought to exercise our "free choice" in accordance with the imperatives of practical reason), there is no relevant capacity (or composite of capacities) in view within formal logic for which formal-logical laws as such could then be normative.[10]

I show in Part VI that the constitutive interpretation alone makes sense of Kant's persistent claims that *no* thinking would "take place" if logical laws are not followed. That is, even if (as I explain in Part VIII) Kant surely thinks that we are free to make what might be called "second-order" mistakes (such as incorrectly thinking or misjudging, or succumbing to the *illusion*) that, in a given case, thinking or inferring has occurred, or mistaking certain putative laws for truly "logical" ones), I will contend that, for Kant, we are simply incapable of engaging in "first-order" thinking that fails to be logically structured. This too is in direct contrast with the "freedom" we have to act "immorally."[11] Hence, on my reading, if we are somehow able to perform an action (or "be" in a mental state) that is not in accord with logical law, Kant will say in such instances that we have simply *failed* to think (judge, infer).

At this point, the main challenge that my alternative, "constitutive" interpretation will face will be to find a way to re-incorporate the language contained in the well-known passage from Jäsche's *Logic* that I cited earlier as strongly suggestive of the normative interpretation. For, we might wonder, how can the constitutive interpretation be made to accommodate this clear insertion of an "ought" into Kant's description of the results of logical inquiry? I conclude the essay (Parts IX–X) by canvassing several options that appear to remain open for the constitutive reading, and propose that the option that provides the maximal amount of interpretive consistency is one that ascribes to Kant a position in which logic becomes normative

for our mental life *only* when viewed in reference to the fact that thinking and reasoning serve as necessary conditions ("means") for the fulfillment of the "ends" of humanity—i.e., for the realization of human "interests," such as the acquisition of scientific truth and the actualization of a moral community. In effect, I conclude that, for Kant, normativity is at best an externally conferred, rather than essentially inherent, property of logical law.

II.

What, then, do most contemporary interpreters seem to have in mind when they say that a law is "normative"? It seems that the relevant sense can be captured by the following three conditions:

(1) The "subjects" of the law—those beings which are governed by, or subjected to, the law—must both be able to succeed *and be able to fail* to act (or be) in accordance with the law.[12]
(2) The *subjects* of a norm *must retain their identity* as beings that are subjected to this specific sort of law regardless of their (actual) accord with it. This latter condition is important, as it implies that evaluative ascriptions in light of norms (e.g., *x* as "in" or "out of accord") institute a division *within* some otherwise well-defined class.
(3) The *laws must retain their validity* or bindingness over their subjects regardless of the (lack of) *actual* adherence to the norms by their subjects—though, to be sure, there must be the *possibility* of such adherence (to uphold the traditional formula that "ought" implies "can").[13]

So unlike descriptions, laws which are norms have a "direction of fit" (to use J. L. Austin's turn of phrase)[14] which provides them with a fixed content that prescribes certain behavior of their subjects as "correct," regardless (in typical cases)[15] of any actual behavior of their subjects; nothing subjects do can change the appropriateness of the norms' claim to governance.

To illustrate the intended sense of "normativity," let's take a concrete (if banal) example: the relation which obtains between traffic laws and drivers. According to the above analysis, these laws can be counted as normative for drivers for the following three reasons: (1) Drivers can succeed or fail to be in accord with them. Of course these laws are *not* normative for, say, stones, since there doesn't seem to be a clear sense in which stones (on their own) can (or cannot) succeed and fail to be in accord with regulations. And as a corollary of this condition, it seems that we should also say of petrological laws themselves that they are likewise *not* norms for stones, since stones cannot both succeed *and fail* to be in accord with these laws. Instead, part of the task of these laws is to separate stones from *non*-stones (not "failed" stones). As familiar cases like these indicate, not all relations of law to subject

have this normative valence. Rather, some laws (perhaps such as those of geology) provides a specification of what we might call the *essential constitution* of their subjects and their properties.[16] (2) Though traffic laws are normative for drivers, when someone fails to be in accordance with their prescriptions, they do not thereby fail to be a driver. In other words, the essential task of traffic law is to separate good from bad drivers, taking "driver" as an independently definable concept. It separates drivers from non-drivers only secondarily, if at all. Finally, (3) even if *no* driver at the moment were actually driving in accord with traffic law, these laws would still clearly represent (appropriately enforceable) prescriptions for driving.

Now that we have a better sense of what it means to say of a law (in this context) that it is a norm, we can see immediately why it has been commonplace for some time to use the language of normativity to interpret Kant's conception of *ethics* and, in particular, to interpret the way in which the moral law binds human beings.[17] We can now unpack the content of such claims by showing that the relation of moral law to human action fulfills the three conditions identified above.

Take the first condition: as Kant writes in the *Metaphysics of Morals*, "experience" itself shows us that the freedom inherent in the process of selecting our act-determining law-representations ("maxims") appears to us as if it results from the exercise of an "ability to make a choice for or against the [moral] law" (6:226). That is, "experience shows that the human being . . . is able to choose [wählen] *in opposition to* [zuwider] as well as *in conformity with* [gemäß] the law," even if the true "freedom of free choice [die Freiheit der Willkür]" cannot be "defined [definirt]" *solely* by our "being able to make a choice in opposition to [our] reason" (ibid.).

As a consequence, the second condition for normativity is then also met, since even morally incorrect acts retain their identity as human acts. Human action as such is not constitutively (essentially) defined as only that action which is morally worthy (or unworthy). Rather, as Kant writes in a footnote, the "highest concept" at issue in practical philosophy—a concept which is then divided further along the spectrum of moral evaluation ("right" and "wrong")—is actually that of the "act of free choice in general [Act der freien Willkür überhaupt]" (*MM* 6:218n). This implies that the higher concept of "free act of choice" is definable independently of "right" and "wrong," since it does not contain these concepts within its "content [Inhalt]," but rather contains them "under" itself, in its "extension [Umfang]." Hence this highest concept can be defined in a way which allows its instances to be identified as such regardless of their particular moral-evaluative status.

Finally, we can note that our third condition is met, in that even if no human being in fact (in history) has ever actually selected maxims that merited the ascription of moral worth to their actions, the moral law would still enjoy its validity. In the words of Kant's first *Critique*, these laws "say what *ought to happen* [was geschehen soll], even though perhaps it never does happen [nie geschieht]" (B830).

This, then, gives a clear sense to the claim that the moral law is, for Kant, *normative* for humans. Yet before we explore the extent to which a similar analysis can be given of our relation to logical laws, I want to introduce one further element of

Kant's moral theory, in order to raise a complication about the lines of comparison which ought to be drawn between the two spheres. For what I want to introduce now are considerations which Kant puts forward to argue that the moral law is *not* normative for *every* sort of rational being.

III.

The possibility for a non-normative relation between the moral law and a rational being emerges from Kant's discussion in the *Groundwork for the Metaphysics of Morals* of the possibility of a being which might be composed *solely* of the capacity for practical reason—a being that, as Kant puts it, has a "holy will" (*GMM* 4:439).

In the case of a being with a holy will, though it would succeed in fulfilling the demands of morality, Kant thinks that it *cannot fail* to do so. Its "volition [Wollen]," Kant writes, "is of itself necessarily in accord [notwendig einstimmig] with the law" (*GMM* 4:414). Of course, Kant is quick to point out that, even in this case, the act of selecting which representation of law will determine the actions of a holy will is an act which is itself determined without any influence of alien causes (*GMM* 4:446). Because of this absence of external influence, the activity of a holy will would remain "negatively free."

Moreover, Kant also holds that the activity of such a being would be determined entirely by principles which derive from its own "essence [Wesen]"—i.e., the essence of a rational being as such (4:412). Hence, a being with a holy will would be an "autonomous," self-determining agent, and so also be "positively" free (4:446–47). I will return to this point below (cf., Part VII), but this is, in effect, what I take to represent the basic significance of Kant's otherwise cryptic claim that a rational being can be said to give, or "be," a "law to itself [sich selbst ein Gesetz zu sein]" (4:447) (and so engages in "Selbst-gesetzgebung"). For something can be said to give itself its own law when the entire structural articulation of the space of its possible activity (here, the activity of a being with a holy will) can be understood *solely* on the basis of its own "internal" (essential) principles.[18]

The basic distinction between such a will and wills like our own (as humans) is summarized nicely by Allen Wood, in his *Kant's Ethical Thought* (1999): "[i]f the will is perfect or holy, the normative law tells us what its self-determined volitions necessarily *are*; if it is finite and imperfect rather than holy, then this law is a categorical imperative, determining what its volitions *ought* to be" (174). Yet in a long and difficult endnote, Wood goes on to claim that "the laws of *every* will must be *normative*," and hence concludes that "the laws of a holy will, just because it is a *will*, have to be normative, but they are not obligatory" (379 n. 25). Even leaving to one side the question of the intelligibility of something's being normative without being (in any way) obligatory, it is hard to see how Wood's basic claim can amount to anything more than a bare assertion of the contrary to Kant's own thesis. Moreover,

since there is *absolutely* no possibility for the holy will to err in any sense—that is, a holy will is not contingently or accidentally "perfect," but *essentially* so—it becomes difficult to see in what sense *at all* these laws can still serve as norms for such a will.[19] Indeed, Kant himself concludes that the language of "the ought [das Sollen]" is "out of place" in the case of such a divine or holy rational being (*GMM* 4:414).

The purity of such a thoroughly and solely rational being with a holy will would thus differ from humans in that it could not be characterized by the same possibility for deviance or error as a result of "free choice" (in the sense of "Willkür"). Rather, *its* activity just *is* universally and necessarily determined solely by what *we* ought to take as correct representations of moral law. Its "maxims" would thus be necessarily identical with the moral law, and so its activity would fully exemplify pure or perfect practical reasoning. But this means that the relationship between the moral law and the holy will of such a being would fail to meet the first condition set out above, since such a being would fail to *be able to fail* to accord with law. And on this basis, then, I would argue (against Wood) that the relation between the moral law and such a purely (practically) rational being should not be said to be normative.[20]

These points about a holy will are recapitulated nicely in §69 of the student transcripts from Kant's 1794–95 lectures on metaphysics (*Metaphysik Vigilantius* ["K_3"]): "God is not capable of a deviation [Abweichung] from the law, he determines himself only by the law, i.e., by himself [durch sich selbst], with him there takes place no necessitation [Nötigung], no ought [Sollen]" (29:1017). What I want to note now, however, is the fact that Kant uses the very same language to describe the faculty for pure practical reasoning "as such" (or "in general")—that is, the capacity which he later distinguishes as "Wille."[21] In the *Metaphysics of Morals*, for example, Kant claims that "Wille" can be "directed to [geht auf] nothing beyond the law," and so actually "cannot be called either free or unfree," because it "directs with absolute necessity and is itself *subject to* no necessitation [Nötigung]" (*MM* 6:226).[22] As a result of the complete and absolutely necessary accord of "Wille" with the moral law, it seems clear that the relation between this faculty itself—considered as a capacity on its own, in abstraction and in isolation from its possible cooperation with other faculties—on the one hand, and the moral law, on the other, should also be viewed as *non*-normative. For the moral law does not tell pure practical reason (as Wille) how it should, but might not, act. Rather, the moral law simply *expresses* what pure practical reason (Wille) *is*, in its very nature or essential *constitution*.[23]

All of this again points up an important fact about the nature of *human* beings. For it is quite clear that the moral law does not on its own express what humans "are," or lay bare the essence of the human form of being—or indeed the essence of any other being which is only partially, though not wholly or simply, rational. Humans are constituted by "lower," non-rational capacities in addition to possessing higher faculties. But then this implies that we will need to look elsewhere for the *constitutive* laws of our complete type of "being" (i.e., the principles which

constitute the kind of being that humans enjoy "as a whole").[24] Yet whatever these "cooperative" laws may look like, because of the relationship that Kant identifies between our capacity for "free choice" and pure practical reason, the moral law will stand above them insofar as it serves as a fundamental *norm* for all human activity, since (as we have seen) its relation to human action fulfills the three conditions outlined in the preceding section (Part II).[25] This normative relationship marks us out as a special type of (partially) "rational being," in that we can both succeed and fail to accord with moral law.[26] Moral law thus tells us humans not how we *do* act, nor which maxims we *do* choose, but how we—considered as the collection of our various capacities—*ought* to act, and so which maxims we *ought* to choose. And, as we have seen, the reference here to the rest of our humanity is essential.

IV.

We have found that the relation between moral law and its subjects takes on two different forms, due to the fact that one and the same law actually governs two different *types* of subjects: on the one hand, it governs purely rational beings, and on the other, it governs beings whose capacities for acting rationally are conjoined to other competing "forces" (e.g., inclination, "Willkür," and so on). With respect to a purely rational being, the moral law simply expresses the essential ("timeless") structure of its moral volition as such and gives a complete description of its "subjective constitution" (*GMM* 4:414). To be sure, even in relation to the more general sphere that includes both purely and impurely rational beings, this law represents the necessary condition which any act of will must meet if it is to count as the exercise (whether in us or in any other "being") of pure practical reason (rather than of some other capacity). It is just that such laws take on an added imperatival or normative force when they are viewed in relation to a kind of being (like humans) which can freely choose not to heed its demands.

All of these considerations will be relevant as we return to the main topic of the essay—that is, what relation Kant thinks obtains between *logical* laws and the capacity for understanding. For what we must now ask is whether things in the logical sphere look more like one or the other type of relation between moral law and moral subject—whether, that is, the logical subject is more like one or the other type of moral subject: whether the logical subject (the "thinker") should be viewed on par with a composite (e.g., human) being, or instead on analogy with a "pure" being with a holy will; whether it is more like a collective of possibly competing capacities, or rather a being constituted out of a single one.

The normative interpretation would seem to presuppose that the relation between logical laws and thinking is straightforwardly analogous to the relation between moral laws and human volitional capacities. But it is equally clear, I will now argue, that such an answer is unacceptable. First of all, Kant consistently argues

that logic considers the capacity for understanding *in isolation*, i.e., in abstraction from any and every other faculty. In the first *Critique*, Kant makes this point quite clearly (and most famously) in relation to *sensibility*, or our capacity to be receptive to representations caused by objects, writing that, in each of the sciences (logic and aesthetic) which investigate only one or the other capacity, "one has great cause to separate [absondern] them carefully from each other and distinguish them" (B76). Yet, though this is perhaps less well known, Kant also makes an analogous point (time and again) with respect to our *volitional* capacities, in both his logic lectures and in his so-called reflections (Reflexionen) on logic, which consist of the marginalia he added to the logic textbook from which he lectured.

Let me give a bit more of the historical background behind Kant's lectures, as it will allow us to further appreciate the precise significance of the point at issue. For almost all of his lecturing career, Kant used Georg Meier's 1752 *Auszug aus der Vernunftlehre* ("Excerpts from the Doctrine of Reason") as the textbook for his logic courses, and it is in the margins and blank pages of this text that we find most of the material that is now called Kant's "Reflections [Reflexionen]" on logic.[27] Now, as Meier's text is written from the Wolffian point of view, and as Kant's criticisms of Wolffian rationalism as a whole are well known,[28] it is not surprising to find that these notes, as well as the student transcripts from Kant's lectures, are peppered with critical remarks directed at "the author." The criticism most relevant to the present topic, however, may come as a surprise to some, and especially to those who embrace the normative interpretation of logical laws. What I have in mind is Kant's consistent rejection of Meier's decision to include a discussion of the "practical" sphere within his logic textbook.

Elements of the criticism can be found in the *Blomberg Logik*, a transcript of Kant's logic lectures from the 1770s:

> Our author [i.e., Meier] speaks in general in this whole section ([*Auszug*] §§216–48) of cognition, how it relates to free will [zum freyen willen]. In logic, however, the relation of cognition to will [zum Willen] is simply not considered; instead, this belongs to morals. The relation of free will is not an *objectum domesticum* of logic. (24:250)

Now, the title of the "whole section" from Meier's text is "On Practical Learned Cognition [von der praktischen gelehrten Erkenntniss]."[29] In §216, Meier defines a "practical cognition [cognitio practica]" as one that "can move us to a noticeable extent to do [tun] or allow [lassen] an action [Handlung]" (16:516). In §217 Meier adds to this the remark that a practical cognition is one in which we "represent to ourselves that something *ought* [solle] to be done or allowed" (16:517; my ital.). In other words, a practical cognition is something which today might go under the name of a *normative* assessment, the judgment that "such-and-such *ought* to come about." And though Meier does not use Kant's own phrasing here ("free will [der freie Wille]"), he does speak in §221 about the capacity for practical cognitions to "produce [würken]" something in our "power of desire [Begehrungskraft]" (16:520),

a term quite close to one of Kant's own titles for our volitional capacities, the "capacity for desire [Begehrungsvermögen]."[30]

The quote above from the *Blomberg Logic* (24:250) gives us Kant's response to Meier's inclusion of these topics within a "general" logic—topics which Kant summarizes under the heading: "the relation of cognition to free will." Kant's response states emphatically that all of these topics are to be banished from the science of logic. Logic is simply not concerned with any specific representations of what "ought" to "move" our free will, because it is not concerned with the relationship between free will or volition and cognition *at all*.

Kant's rejection of practical cognition as a topic for logic—and with it, issues connected to the will—is by no means restricted to these remarks. Kant returns to this point repeatedly in later logic lectures, consistently underlining the connection between practical cognition (normative representation) and our capacity for volition and claiming all the while that logic has no room for these topics, no "practical" component.[31] A particularly striking example of such a claim can be seen from the passage from the 1790s *Vienna Logic* lecture transcripts that contains the epigraph to the present essay. Again making reference to Meier, Kant argues once more that "[t]he whole doctrine of practical use, with which the author deals, simply does not belong to logic," claiming instead that, "in logic one must think *as if one had no will* [Wille]" (my ital.), since logic is "the science of thinking, and not of willing [Wollen]" (24:903).

Kant's criticisms of Meier thus appear to target precisely the idea that lies behind the normative interpretation—namely, the idea that logic deals with laws of the sort that are at issue in a practical discipline, i.e., laws which function as norms or prescriptions for our capacities for volition. Yet, as we have found, Kantian logic simply has no room for such a practical element. It is hard, then, to see how logic could give us any sort of "practical" guidance, or show us how to "do" anything (e.g., thinking) "well."

V.

Indeed, Kant feels strongly enough about the need to distinguish logic from practical philosophy in general that he makes precisely such a distinction fundamental to his general philosophical architectonic. For instance, in the preface to his *Groundwork for the Metaphysics of Morals* and in both the published and unpublished versions of the introduction to his 1790 *Critique of Judgment*,[32] Kant explicitly distinguishes logic from practical philosophy, classifying logic under the heading of *formal* philosophy, and classifying practical philosophy ("ethics") under the heading of *material* philosophy (along with "physics"). What is more, only practical philosophy is consistently aligned with the examination of the "*concept of freedom*" (*Critique of Judgment* 5:171) and "the laws of *freedom*" (*GMM* 4:387), while

logic is said to be "occupied only with the form of the understanding and of reason itself and with the universal rules of thinking in general" (*GMM* ibid.). It is hard to see how the normative interpretation can account for such a clear separation of topics in Kant's official disciplinary classification scheme, especially in light of the claims we encountered in the previous section, that logic has nothing to do with the will, or the relation of free will to thinking, or anything else that pertains specifically to practical-normative representations.

Is there, nevertheless, *some* analogy which might still be drawn from the moral to the logical sphere? I think there is, though I think we can find grounds from our above analysis for concluding that, if anything can be carried over to the question of the bindingness of logical law upon its "subject" (i.e., Verstand überhaupt), it can *only* be Kant's conception of the relationship which obtains between moral laws and the faculty of practical reason as such, since only practical reason as such can be considered with the same sort of "purity" that Kant prescribes for the treatment of the capacity for understanding within logic. In fact, at several places Kant himself speaks of pure general (formal) logic as if it stood parallel to a corresponding "general [allgemeine]" practical science of the Will (qua Wille) (compare *GMM* 4:390; also, B79).[33]

Yet before we evaluate this alternate analogy, let us first consider what would be required if the normative interpretation were correct, again taking our cues from our analysis in previous sections. For if—as the majority of contemporary interpreters suggest—the nature of the "bindingness" of logical laws upon the capacity for understanding (for "thinking in general") were to be explicable by way of a model similar to the normative relation that we found in Kant's practical philosophy, then we ought to be able to interpret logical law on analogy with the general form of lawfulness that governs human actions or productions through *free choice*. That is, if we are still determined to make the normative interpretation work, then we should ask what (if any) role Kant thinks that free choice, or something like it, plays in the "activity" or "production" of thinking.

Now, at this point, two well-known Kantian doctrines might spring immediately to mind. First, Kant consistently characterizes the activity of the understanding as *spontaneous*,[34] which surely implies that thought is accorded at least *some* form of freedom. This has led some readers, such as Pierre Keller and John McDowell, to simply identify the spontaneity of the understanding with the sort of "freedom of choice" that we have analyzed in the moral sphere. For instance, in his *Kant and the Demands of Self-Consciousness* (1998), Keller writes

> Bona fide norms must be principles that the individual can come to understand as the basis for his or her behavior, and they must be principles that the individual can come to see him- or herself as having chosen to be bound by in his or her behavior. Such a capacity for choice is what Kant refers to as "spontaneity." (7–8)[35]

Second, the role that the "freedom of thought" plays in Kant's conception of "Enlightenment" is well-known, especially in connection with his assertion that, in

order to escape intellectual immaturity, one must have the courage to exercise one's freedom to "think for oneself."[36] And in connection with these two doctrines, we might also recall the fact that, as several commentators have noted, early in the Critical period Kant appears to have been drawn to a "short" argument for the existence of the (transcendental) "freedom" that morality requires, one which could be grounded upon a direct consideration of the spontaneous freedom that we possess in thought and judgment.[37]

Even more support might seem to be lent to this interpretive line if we note that, in many of the transcripts from his logic lectures, Kant is reported to have acknowledged at least the appearance of a connection between the activity of thinking and judging, on the one hand, and the capacity for "free choice" on the other, insofar as both capacities seem to be at work in the activity of "holding-true" [für-wahrhalten]. For instance, the *Vienna Logic* tells us that "there must be something in our approval which is arbitrary [willkürlich], where we ourselves have to determine whether we will [wollen] hold the cognition to be true [vor wahr halten] or not" (24:859). Jäsche's *Logic* too states that there seems to be "something arbitrary [etwas Willkürliches] in our judging, in that we hold something to be true because we want [wollen] to hold it to be true" (9:73). Perhaps, then, just as the moral laws are normative for our capacity for "free choice [Willkür]," so too is logic normative, if not for our understanding *per se*, at least for the understanding conjoined with free choice or some "Willkür"-correlate—i.e., normative for whatever it is that is responsible for "holding-true"?

In fact, Jäsche's text goes on to say that the apparent involvement of something like "free choice" in judgment *qua* holding-true is highly misleading, even "absurd," stating explicitly that "the will does not have any influence immediately on holding-true" (ibid.).[38] This recalls Kant's criticisms of Meier discussed above (Part IV), which made it quite clear that logic treats the understanding in abstraction from any connection it may have to the "will." But note that even if we were to grant the assumption that *some* sort of freedom akin to the freedom of choice *does* pertain to certain activities in which thinking is involved—that is, even if we enjoyed some form of "freedom of choice" in relation to "holding-true," or "believing"—it would still remain altogether unclear whether this freedom would amount to the sort that would be required in order for *logic* to be normative for thought. For according to our earlier analysis (Part II) it would have to be a freedom (to choose) to think in a manner that *fails to be logical*.[39] For only this sort of freedom, it would seem, could complete the analogy with the ethical sphere, since we would then have a logical correlate for cases in which our capacity of free choice is exercised *immorally* (in opposition to the moral law).

Conversely, we could marshal even more support for a non-normative interpretation if it could be shown that Kant thinks that *illogical thought is impossible* (in the strongest sense of the term), for then it would be extremely difficult to see how the normative interpretation could even get off the ground, despite those sentences which surface in Jäsche's text. For what sense could it make to ascribe to Kant a

view in which the understanding (or anything else) possesses the freedom required for logical laws to be norms—i.e., the freedom to think illogically—if this would amount to the freedom to *do the impossible*?

VI.

With this in mind, consider the following claim from the first *Critique*: general logic "contains the absolutely necessary rules of thinking, without which *no use of the understanding takes place*" (B76; my ital.).[40] Here the clear implication would seem to be that, with respect to the laws of general logic, the understanding simply *cannot act*—that is, it is *not free* to act—without abiding by these "absolutely necessary rules"; otherwise nothing at all would "take place" in thought. Even so, not everyone agrees. For example, John MacFarlane (op. cit.) has suggested that this description of the absolute necessity of logical laws need not imply that "we cannot think contrary to them," adding parenthetically: "Compare the sense in which Kant calls the categorical imperative 'necessary'" (44). Yet though it is clear from the context that MacFarlane means for this last comparison to provide support for the normative interpretation, we have already been given grounds above for thinking that there are other sorts of necessity besides that of an imperative (however universal and necessary) that are present in the moral domain itself. Hence, MacFarlane's comparison simply begs the relevant question.

Moreover, there are further textual reasons for seeing in this quotation (from B76) precisely the entailment which MacFarlane denies, namely, if some "thing" violates the rules set forth in general logic—such as the Principle of Contradiction [Satz des Widerspruchs], though the point surely generalizes to other formal-logical laws—then it is simply ruled out *as a thought*. For Kant draws exactly this conclusion quite clearly in his 1790 polemic against Eberhard[41]: "whatever conflicts with [nicht bestehen mit] this principle [i.e., the Principle of Contradiction] is obviously *nothing* [nichts] (*not even a thought* [gar nicht einmal ein Gedanke])" (8:195, my ital.; cf., B189–90). Kant's thesis here is that, because no thought or judgment "can be opposed to it without annihilating itself [sich selbst zu vernichten]," "this principle"—i.e., the Principle of Contradiction—stands as a "*conditio sine qua non*" for thought as such (B191). In this regard, Manley Thompson captures the essence of Kant's position quite nicely in his essay "On *a priori* Truth":[42] "when we accuse someone of illogical . . . thought, what we mean is that the person's efforts at thought have completely failed" (471); "conformity to [the principle of contradiction] is not simply the best thing to do; it is the only thing to do if there is to be thought at all" (464 n. 2).[43]

The general conclusion we are pushed toward, then, is that, for Kant, whatever does not fall "within the canon" of logically possible forms of thought (of judgment, of inference, etc.) that are articulated by logical laws is something which can-

not be counted as an act of the understanding. It would amount only to a "putative" thought, no more a thought than a "false friend" is a friend. This brings out a further manner in which the relationship between logical law and its "subject" fails to meet the conditions set forth above (in Part II): that which fails to accord with logical law simply loses its identity as an exercise of the faculty governed by this law. Similarly, various passages—such as the Introduction to the first *Critique*'s "Transcendental Dialectic"—indicate that the first condition (i.e., the possibility of both success *and failure* of accord with logical law) likewise cannot be met, because the understanding cannot "by itself depart from its own laws" (B350).[44] In several of these passages, the possibility for error is said to arise only when there are *multiple* forces at work, or when there are influences of "other causes." Formal logic, however, considers the understanding in complete isolation.

Now, it might be argued that these passages indicate that our understanding *can* in fact depart from its *own* laws, just so long as it is "influenced" by "another cause." It is important to recognize, however, that this sort of reading is not forced on us. Though it might be true that error "in general" can only arise once we are in a situation in which there is cooperation between two forces, the laws with respect to which these forces are said to cause an "error" might actually amount to a *different sort of law altogether*, a law which governs the *cooperation* of the forces, rather than either individually. This would seem to be especially appropriate in cases—like that of cognition—in which we are required to have cooperation between two *non-homogenous* forces (e.g., receptivity and spontaneity).[45] (For example, the cooperative "laws" being flouted in the "Transcendental Dialectic" are not pure-general, formal-logical laws, but rather *transcendental*-logical laws, such as the Principles from the "Transcendental Analytic.") On this reading, though during such cooperation, the joint product of sensibility and understanding might deviate from these cooperative laws, the cooperation itself cannot cause either force (to the extent that its specific contribution can be isolated) to deviate from its *own* essential laws. And if ostensibly cooperative forces engage in activity which does go "contrary" to the laws of one of the individual forces, we should conclude that a force of that sort is in fact no longer present or wasn't "at work" in the first place.

In fact, this interpretation brings to light, and then makes good sense of, two important and related *dis*analogies between logic and ethics, which have been touched upon above, though not yet made fully explicit. The first stems from Kant's oft-repeated claim, at the heart of his anti-Rationalism, that cooperation of the above sort (between spontaneity and receptivity) is *necessary* for the possibility of cognition ("only from their unification can cognition arise" [B75–76]). Now, the systematic collection and organization of such cognition—more specifically, of *true* cognition—in turn represents what Kant calls the "interest" of the theoretical ("speculative") sciences. "Interest" is defined by Kant in the second *Critique* as "the principle which contains the condition under which alone the exercise [Ausübung] of the relevant mental capacity is promoted [befördert]" (5:119). Hence, even though, when viewed in conjunction with the rest of our mental capacities, the

capacity for understanding (thinking) is subordinated to the principle which promotes its use in the systematic acquisition of true cognition, this capacity on its own ("as such") is simply *not* able to meet the demands of knowledge. Yet it is equally evident that *no* such cooperation is necessary in the moral sphere, since (as we have seen above) a being endowed with practical reason ("Wille") alone (such as a holy will) *would* (be able to) achieve the "end" set by morality (practical philosophy). No further faculty (e.g., sensible inclination) is necessary.

But what is more—and this provides the second disanalogy between ethics and logic—in the second *Critique*, Kant argues that there are certain things which are "required for the possibility of *any* use of reason," such as acting in accordance with rules like: "principles and affirmations must not contradict one another" (5:120). These requirements "do *not* constitute a part of the interest" of our capacity for reasoning, but are "instead the condition of *having reason at all*" (ibid.; my ital.). This implies that there is a space for the investigation of the capacity for reasoning or understanding "as such," considered independently of any such interests or ends towards which it might be "used." And the language here (i.e., the requirement of non-contradiction) indicates that it is *formal logic* which Kant takes to represent the science that will undertake this sort of inquiry, and which will therefore bracket all considerations of interests and ends. (In this regard, note that it is *transcendental* logic—or a logic which takes up the conditions of relation between our thought and objects—which Kant calls a "logic of *truth*" (B87; my ital.).) By contrast, reason in its practical use is essentially "interested" in "the determination of the will with respect to the final and complete end" (5:120).

VII.

Since we have found no correlate to our capacity for free choice in view within formal logic itself, for which logical laws could be normative, the ground for the more frequently drawn analogy between ethics and logic is thus obscured. Moreover, it would seem that we have actually found reason to think that *no* such grounds can exist, given Kant's claims that something which was not in accord with logical law is not to be counted as a "thought," albeit a logically "bad" one or one we "ought" not to entertain, but rather not to be counted as a thought *at all*. Perhaps by now, then, enough has been said to convey a sense of the difficulties that face the straightforward normative interpretation of Kantian logical laws. Rather than continue to present criticism of this interpretation, let me begin to lay out more fully what I take to be a more promising alternative.

We can gain a preliminary sense for what would be involved in such a constitutive interpretation, if we allow ourselves to recall the different possible line of analogy that might obtain between ethics and logic (though not the one which is *prima facie* implied by the quote from Jäsche's text). For the truly relevant analogy

is, I would argue, one which might be phrased by way of a transposition of the claim from the *Metaphysics of Morals* (cited above, Part III) into the logical register: like the capacity for practical reasoning [Wille] as such, the capacity for understanding as such [Verstand überhaupt] is simply *not* "subject to necessitation" by its laws; instead, logic "directs" the understanding's activity and use with "absolute necessity." With this transposition, we would be put in a position to view the "spontaneity" of the understanding as of a piece with whatever "freedom" we might be able to attribute to a holy will, or to the "capacity" for purely practical reasoning itself. Both "pure" faculties are such that they are completely and necessarily determined *internally*—their "activity" is wholly and solely determined by those laws which express their essence as a capacity. They are each "free," then, in the following, "Leibnizian" senses of being "spontaneous":[46] free "negatively," as each enjoys an absence of external influence upon its activity, but also free "positively," since their own essences provide the principle(s) sufficient for the complete explanation of their activity.

Let me say a little bit more about Kant's "Leibnizianism" in this regard, since it will provide us with a proximate historical source from which Kant might have drawn his own conception of the relation between logic and the capacity for understanding. The first thing to note is that for Leibniz, as for Kant, logic is a discipline which takes thought or understanding as its subject matter. In IV.21.5 of his 1705 *Nouveaux Essais*, Leibniz describes logic as "giving a thorough account of the understanding [expliquant cet entendement au fonds]" of "spirits" (G v.504). Earlier, in III.10.12, logic is said to be "the art which teaches us the order and connection [liaison] of thoughts" (G v.323).

Secondly, Leibniz too takes the general principles of logic to in some sense constitute the very essence of this capacity. In I.1.20 of the *Nouveaux Essais*, Leibniz claims that "general principles enter into our thoughts, serving as their soul [ame] and as their links [liaison]," such that "even if we give no thought to them, they are necessary for thought, as muscles and tendons are for walking" (G v.69). In I.3.3 Leibniz even speaks of the logical categories (or as Kant would call them, logical "forms") of "being," "possible," "same" as "so thoroughly innate that they enter into *all* our thoughts and reasoning, and I regard them as *essential* things to our minds" (G v.93; my ital.).

Finally, it is crucial for Leibniz's arguments against the Cartesian doctrine of the divine creation of the so-called eternal truths that logical laws should obtain or be valid of understanding and thinking prior to, and independently of, any consideration of what ends we might wish to achieve with these capacities, or what interests they might be useful for realizing. This is of a piece with Leibniz's anti-voluntarism and is an application of his commitment to the principle of sufficient reason, which he spells out in §2 of his 1686 *Discourse on Metaphysics* §2: "all acts of will *presuppose* a reason for willing and that this reason is naturally *prior* to the act of will" (G iv.428; my ital.). God's own volitions are no exceptions.[47] Leibniz argues here (in *Discourse* §2) that the reason for God's willing can be found in his

essence, which is something that His will did not in turn bring into being. And it is precisely in God's essence that Leibniz also locates "the eternal truths of metaphysics and geometry and consequently also the rules of goodness, justice, and perfection"; far from being "merely the effects of the will of God," they are "only the consequences [suites] of his understanding [entendement], which, assuredly, does not depend on his will, any more than does his essence" (G iv.428). As Leibniz puts it later, in §13, "necessary truths" in general "are founded [fondées] . . . without regard to the free will of God or of creatures" (G iv.438).[48] Or more strikingly, as Leibniz writes in his 1712 *Monadology* §43, "the understanding of God *is* the region of eternal truths or of the ideas upon which they depend" (G vi.614; my ital.).

In Leibniz's construal of the priority and independence of the *divine* understanding to volition, we thus find a near-perfect model for the sort of independence of understanding from will that we have seen Kant uphold in the *human* case. Both the Leibnizian divine understanding and the Kantian human understanding are "free" in the sense of being fully self-sufficient "sources" of principles of their activity, as well as in the sense that the "activity" of understanding itself is something which is "spontaneous"; it "follows" from these constitutive principles alone. That is, I think we can and should take over what Leibniz says of the "soul" and of "substances" in general in *Discourse* §§32–33 and apply it to the Kantian understanding itself, as both Leibniz and Kant take the capacity for thinking to have "a perfect spontaneity . . . such that everything which happens to it is a consequence [suite] of its idea or of its being" (G iv.458).

What is more, neither a Leibnizian nor a Kantian "understanding" is "free" to adhere to any other law (nor to be "lawless"). It simply *is* that which accords with the logical law; the "essence" of understanding is wholly expressed by logical laws.[49] These laws are not things that either Leibniz or Kant suggest that the understanding "ought" to live up to, or "ought" to act in accordance with, but are rather laws which articulate the very form of "being" of understanding itself. These laws are necessary principles which both Kant and Leibniz think must be seen as mere "consequences" of the very idea of understanding as such, consequences which, in particular, "obtain" prior to any considerations of what can or cannot, or should or should not, be willed.

In these regards, then, recognizing the Leibnizian heritage of Kant's picture of the subject matter of logic is something which, I suggest, can provide an extremely useful interpretive corrective when we approach Kant's own views. For keeping Kant's Leibnizianism in mind will help us avoid ascribing to Kant, not only the "normativist" position concerning logical laws that I have criticized at length in the previous sections, but also any kind of crude constructivism or conventionalism about logical principles.

Moreover, arriving at a non-normative, but rather constitutive interpretation of the relation between "Verstand" as well as "Wille," on the one hand, and their respective laws and principles, on the other, can also help us avoid what Terry Pinkard has recently called the "Kantian paradox" of the "self-legislation [Selbstgesetzgebung]" of reason in either sphere. Pinkard writes that, according to Kant,

> if we are to impose a principle (a maxim, the moral law) on ourselves, then presumably we must have a *reason* to do so; but if there was an antecedent reason to adopt that principle, then that reason would not itself be self-imposed; yet for it to be binding on us, it had to be (or at least had to be "regarded" to be, as Kant ambiguously stated) self-imposed.[50]

I agree that, as it is stated, this situation appears paradoxical.[51] In fact, it is extremely difficult to see how such a position could avoid bottoming out in some form of (radically) voluntaristic ethical and logical conventionalism. Yet Kant never gives any indication that he would go in for such conventionalism, in either the logical or the ethical sphere.[52]

On my reading, Kant himself would seek to temper the sense of paradox, in both the moral and logical spheres, as follows. Rather than being something "we" *do* (or could fail to do), the manner in which the will ("Wille") as such is said (in the *Groundwork*) to "give itself the law" (4:431) or to be "a law to itself" (4:447) consists in its being so *constituted* as a capacity so as to never be determined by anything "from without." Its entire space for activity is delineated *a priori* by its essential principles. The same applies to the case of the capacity for understanding as such and its laws (and any other form of pure "rational being [vernünftige Wesen]"). The highest principles of each sphere (the law of contradiction and the non-normative correlate of the categorical imperative, respectively) do not represent *prescriptions* concerning what an understanding or practical reason "should" do (and yet might fail to do), but rather an expression of what these capacities *are* (in their "essence," as I have been calling it).[53]

In general, then, on the non-normative interpretation, Kantian logical rules construct a "space" of possible activity which circumscribes a capacity for understanding *per se*, such that nothing which could not be construed as in accordance with these rules could be counted as an act of understanding. Any "thing" which failed to meet up with these rules would, on this picture, fail to be an act of the understanding, but would have to be the product of some other force or capacity. Unlike norms, these laws do not institute a division *within* thinking, between, say, "correct" and "incorrect" thought, but rather one between thought and *non*-thought.[54]

VIII.

We should thus conclude that Kant simply does not ascribe to humans the "freedom" to "think" what is illogical. In this regard, Kant's conception of logic's relation to thought is neatly encapsulated in the propositions from the *Tractatus* that serve as our second epigraph: nothing unlogical *can* be thought.[55]

One consequence of this interpretation would seem to be that, for Kant, in a fairly strict sense, there is no such "thing" as logically "faulty" judging or reasoning or inferring. Now, this may seem to some modern readers to run together two kinds

of failure to accord with logical rules, since there are nowadays (typically) two sorts of rules which belong to logic—namely, formation rules and rules of inference. That is, while we might be convinced that if we "fail" to produce something "well-formed," we are, from the point of view of logic, indulging in nonsense (i.e., "failing" to give expression to anything thinkable), we might nevertheless want to keep room for the idea that we can entertain something which is a perfectly well-formed sentence in the relevant formal language (a "wff"), but then go on to make a mistake by assuming that a certain move from this sentence to another "wff" is licensed by an inference rule, when in fact we have no such license. Such a case is not typically described as a *failure* to infer, but rather a "bad" or "invalid" inference, because, as was noted in the introductory section, most contemporary logic textbooks teach that logic is a normative discipline.

Now, for his part, Kant would agree that we can link together well-formed judgments in non-inferential sequences. Yet Kant also takes *inferences as such*, and not "good" or correct inferences, to be identifiable through the traditional set of syllogistic forms and a handful of schemata for "immediate" inferences such as "conversion" and subalternation. This comes out perhaps most clearly in Kant's early 1762 essay, "The False Subtlety of the Four Syllogistic Figures." In this essay, Kant gives an account of inference in which what are traditionally called the second, third, and fourth figures of the syllogism are all demoted to cases of "hybrid inference [ratiocinium hybridum]" (2:50). Kant thinks that, in cases of "hybrid" inference, the capacity for these sequences of thoughts to count as inferences "depends on the tacit addition [Dazufügung] of an immediate inference, which one must have at least in thought [in Gedanken]" (2:51), even if it is not written out or stated explicitly or "really expressed [wirklich ausgedrückt]" (2:50). In Kant's mind, "what is important here is not what one says [sagt] but what is indispensably necessary for one to think [denken] if a valid inferential sequence [richtige Schlussfolge] is to be present [vorhanden sein]" (2:50).

Hence, Kant holds that what is "said" or "expressed" in a hybrid inference is such that it does not yet make "a valid inference present." Of course, this not to deny that the relevant sequence of judgments might be such that it "contains [enthält] . . . the *materials* for a conclusion," even if it itself "does not have the *form*, in accordance with which an inference is to be drawn [wornach geschlossen werden soll]" (2:54–55; my ital.). Yet Kant is quite explicit about the failing of the "hybrid" syllogism: the relevant immediate inference (e.g., conversion *per accidens*) "must, therefore, be tacitly thought [in making the mediate inference], for otherwise my propositions *do not follow inferentially* from one another [schließen meine Sätze nicht]"; i.e., an "inferential sequence [Schlussfolge] is *not possible*" (2:52; my ital.). Thus, in the end, hybrid inferences are not really "inferences" after all, because they fail to express one of the "forms" of inference.[56] But then if Kant judges cases such as these, which are at least "implicitly" or "mediately" connected to actual forms of inference, not to be themselves inferences, we can only conclude that Kant will be more dismissive of those sequences which have no hope of being rearranged or

transformed so as to accord with a syllogistic figure, even if each of the individual elements in the sequence is itself a perfectly "well-formed" thought.

For Kant, then, "Barbara," "Celarent," rules such as *nota notae ist nota rei ipsius*, *modus ponens*, etc., simply *define* what thought *qua* "inference" *is*. These rules provide the canon for distinguishing inference from *non*-inference. This is because, in general, the forms of judgment and inference and the laws which govern them do not sort acts of understanding into good and bad thoughts or good (valid) and bad (invalid) inferences. Rather, things which cannot be seen to fit the logical forms of thinking and reasoning are simply not thoughts or inferences at all (just as no act of practical reason could consist in undertaking an immoral maxim). If we seem to "think," or appear to "infer," and yet fail to do anything that accords with either judgmental or syllogistic stricture, then no thought or inference has yet been achieved. At best, perhaps we have managed to link together representations or judgments according to empirical-psychological rules for association.

It is important at this point to emphasize, however, that what we *can* do is *take ourselves* to have made a judgment, or inference, when in fact we have done no such thing. We can, that is, succumb to what James Conant has usefully dubbed "the illusion of thought."[57] Moreover, we can also *take ourselves* to have identified the logical "canon" of thought (i.e., to have identified logical law and the canonical forms of thinking), when in fact we have failed to make a correct identification. But in both of these cases it must be emphasized that we are making *second*-order, reflective judgments, such as "*x* is a judgment (thought)," or "the principles *p*, *q*, *r* . . . provide the canon of understanding." It seems clear that these (higher-order) judgments themselves can still go on to contradict (fail to correspond to) their (second-order) "object," since we can be mistaken in our estimations in this regard. (In the 1762 essay discussed above, Kant himself writes of the "*false* subtlety" of traditional presentations of the syllogism.) It will still be necessary, of course, for each of *these* judgments (considered as first-order judgments in their own right) to be in accord with logical form and not conflict with logical principles in order to count as a thought (judgment) in the first place.

In a similar fashion, we might also be said to "fail" with respect to inference when a *non*-inference is passed off as something with the logical form of an inference, due to a failure in its formalization—say, because we have used the same term in both premises without recognizing an ambiguity across its uses (as occurs, for example, in the "inferences" which generate the Antinomies of the first *Critique*'s Transcendental Dialectic, cases of what Kant calls a *sophisma figurae dictionis* [cf., A402; B411]). This occurs when the true form of the movement of thought is masked by the fact that the material involved has been given the "appearance" of an inference (e.g., by the silent transition from a negative to a (superficially similar) infinite judgment, etc.). Here we have the faulty determination of the form of the relationship that obtains among some of the expressions involved in a judgment. Here again, though, we only misjudge what form *x* has (i.e., that it *is* an inference), and should not be said to "make" a faulty inference.

These last, second-order mistakes are cases of succumbing to what Kant himself labels logical *illusion*: "Logical illusion [Schein] . . . consists in the mere imitation [Nachahmung] of the form of reason (the illusion of fallacious inferences)" (B353). With illusion comes the possibility for error, but we can succumb to such illusion only by *taking* the relevant sequences of representations as of such and such form—that is, by taking up the position of reflective consciousness, and so implicitly raising the question of whether what "appears" to us to be *x*, actually *is* an *x*. For here we are given room to take ourselves to have inferred or judged, whereas what we have actually done is something that gives only an illusion of inference or judgment.

At this point, though, we should recall a point made in Part VI—namely, that all concern for true cognition, even at this reflective level, represents an *interest* of ours, and not a condition upon the activity of thinking or inferring itself. These sorts of questions about whether we have merely appeared to judge or infer, or have actually done so, are questions which only will arise if we have placed ourselves in a sphere in which we take an interest in the cognition of our own mental activities (i.e., an interest in "self-cognition"). That is to say, these questions will only become relevant when we take up an interest in deciding when we are truly, rather than apparently, engaged in thinking, judging, and inferring, when we make "self-knowledge" into an "end" for our mental activity, that we can bring in the possibility of a "failure" to achieve that end.

IX.

This last distinction between "logical" failure (which Kant takes to be impossible) and logical "illusion [Schein]"—or second-order judgments which mistake something being, or falling under, a logical concept or rule—as well as the point of view which takes an "interest" in avoiding logical illusion, will both be of use as I turn now to the hitherto looming challenge of reincorporating the original passage from Jäsche's text (from Part I) into my constitutivist account, since it was this passage that provided the motivation for a normative interpretation in the first place. For up till now, we have left the following question unanswered: how can the constitutivist interpretation of Kant's views on logical law deal with the Jäsche passage, which so obviously suggests the normative interpretation? For, as was noted above, we undeniably *do* see a use of "sollen" in Kant's logic lectures and *Reflexionen*, and it is surely this fact which must have been behind Jäsche's choice to include the oft-cited remark in his textbook. So, can the constitutivist interpretation of the relation between logical law and thinking account for, or at least accommodate, this obvious intrusion of normative language—and if so, how?

Before I propose such a reconciliation, I want to note that, even though few interpreters these days have opted for a more substantial inquiry into the viability

of the position expressed in Jäsche's text, I am not altogether alone in being suspicious of the simple appearances given off by this remark. For in fact, in the "Prolegomena" to Edmund Husserl's *Logical Investigations*,[58] we find the beginnings of such a reading—one even introduced by an outright claim that the passage from Jäsche's text gives the wrong impression about Kant's true views:

> Kant himself—though he opposes logical laws, as "necessary rules" which say "how the understanding ought to proceed in thought," to psychological laws, which say "how the understanding is and does think," (cf. *Jäsche Logic*, §I)—*did not ultimately have the intention to regard logic as a normative discipline* (in the sense of one that measures adequacy [Angemessenheit] in relation to set ends). This is decisively shown by his coordination of logic and aesthetic to accord with the two "basic sources of the mind" . . . His logic, no more than aesthetics in this Kantian sense, is to be counted [gelten] as a discipline guided by ends [nach Zwecke regelnde Disciplin]. ("Prolegomena," §13, 37 n. 1)

Husserl recognizes that Kant's commitment to the "self-sufficiency [Eigenberechtigung] of a pure logic" entails that it will not analyze thinking *qua* directed toward this or that end, and so recognizes as well that to "posit normative character . . . as something which belongs essentially to its concept" is something that would lead to an "obvious inconsequence, indeed even a contradiction," since "the relation [Beziehung] to a guiding end and to activities subordinated to this end lies in the concept of normativity [Normirung]" (§13, 35–36). By contrast, pure general, or formal, logic, in Kant's sense, treats thinking in abstraction from any interests which it might subserve, as we have seen above. The parallel Husserl points to between logic and aesthetics is particularly striking in this regard, since there is perhaps less temptation to take a passive capacity like sensibility to be one which on its own is oriented toward "ends" with respect to which it could meaningfully be said to fail to achieve.[59] Indeed, as Kant claims explicitly in the passage quoted above from the first *Critique*'s Transcendental Dialectic, the senses too, considered on their own, "do not err"—a fact which he derives from the very same general claim he uses to support the absence of "error" within understanding itself: "no force of nature can of itself depart from its own laws" (B350).

What is even more striking about Husserl's remarks about Kant's position is that they are put forward in the course of a general argument in Husserl's "Prolegomena" for the conclusion that *every* normative discipline *presupposes* a non-normative, theoretical discipline:

> [E]very normative and likewise every practical discipline *rests on* [beruht auf] one or more theoretical disciplines, inasmuch as its rules must have a theoretical content [Gehalt] *separable from* the thought of normativity (of the "ought" [Sollen]), whose scientific exploration lies with these theoretical disciplines. ("Prolegomena," §14, 40; my ital.)

Husserl himself goes on to argue later in the "Prolegomena" that, far from being a normative discipline, pure logic is instead the most fundamental sort of theoretical

discipline, so much so that it is in some sense presupposed by *all* disciplines, including all normative disciplines, and in particular any discipline which purports to give norms for thinking. In effect, I have argued above that Kant holds a quite similar point of view, insofar as he, too, takes the non-normative discipline of pure logic to be presupposed by any discipline which hopes to provide norms for the achievement of ends or realization of interests by means of the "free" interaction of understanding and reasoning with other "external" forces (such as sensibility or inclination).

Hence there is at least some historical precedent for a constitutive interpretation of Kant's logic. But, to return now to the task at hand, we need to find a way to make sense of the passage from Jäsche's *Logic*, insofar as it provides the one well-known piece of textual evidence which lends fairly direct support to the normative interpretation. Now, were this the only text in which an "ought" was connected to logic, then we might attempt to belittle the passage by appealing to the peculiar status that Jäsche's text has within Kant's corpus.[60] We might simply insist that, since Jäsche's text lacks the *full* "imprimatur" of Kant's authorship, no decisive conclusion ought to be drawn from Jäsche's manuscript alone.

Belittling Jäsche's text will not help us here, however, since (as I have noted above) similar sentences show up throughout the other extant lecture transcripts as well as in the so-called logic *Reflexionen* from the Critical period.[61] Still, to my knowledge, no such claim appears in those works which Kant himself prepared for publication. And, as we have seen, there might be a clear reason *why* no similar statement found its way into Kant's published writings—namely, because it is *incompatible* with other published doctrines. Perhaps the phrase simply persists in the notes as an unreconstructed trace of Kant's intellectual heritage.

In any case, what we should at least attempt to do is determine whether or not the viewpoint expressed in Jäsche's text (and elsewhere) might somehow nevertheless be interpreted in such a way that *is* compatible with published doctrine, with a minimal amount of mutilation or gerry-mandering. For we have already found it appropriate to ask the normative interpreters to give general, systematic ("architectonic") grounds in support of their claim that Kant takes the laws of formal logic to be normative for thinking—even if, as we have seen, there are no straightforward grounds upon which to base such a claim. Is there, by contrast, any way of making the Jäsche passage compatible with the alternative, constitutive interpretation?

X.

Let me end this essay by considering several possible paths for such an interpretive reconciliation:

(i) We might take Kant to be referring implicitly in the Jäsche passage to the special branch of logic named "applied [angewandte]" logic, which Kant thinks *does* deal with, among other things, "the cause of error" (B79). (Recall

our above distinction (end of Part III) between pure and applied morals.) Perhaps, then, it is this kind of logic which is being described as giving rules according to which we "ought" to (but might not) think, if we are to avoid errors?

The main problem with this suggestion is that reference to "applied" logic is not only absent from, but is actually *prohibited* by, the context of the passage in question. Applied logic, according to Kant, deals with the use of the understanding "under the contingent conditions of the subject, which can hinder or promote this use, and which can all be given only empirically" (B79). In the passage at issue, however, Kant is drawing a *contrast* between the way thought is treated by logic as a *pure* (non-empirical) science and how it is treated in empirical psychology or in sciences which depend on psychology's findings (cf., 9:14).

(ii) To pick up on in our discussion at the end of Part VIII, we might argue that, in the Jäsche passage, what Kant means to be claiming is that it is when we consider logic's laws *themselves* as possible "objects" of reflective thought that they become "normative," in the same sense that *any other truth* is normative for cognition: cognition *aims at* the true, and so *ought* to have truths rather than falsities as its object.[62] Certain laws, and not others, are laws which we "ought" to take as expressive of the necessary forms of thought.

On this account, if (for whatever reason; e.g., prejudice) we fail to identify the (true) laws of thought, or if we count (or discount) certain things as thoughts by reference to the wrong set of laws, then we are making a mistake, albeit a second-order one. We are not, however, failing to do what we "ought" to do because we are thinking a first-order illogical thought.

Yet though it is perhaps more plausible than the first, this interpretation forces us to see Kant as departing from his typical use of this sort of contrast—between how one *happens* to *x* and how one *ought* to *x*. For the "*x*" in question here ("think") must then be taken as referring ambiguously to both first-order thinking and a second-order sort of thinking *about thinking* (or about its laws), rather than just to thinking *simpliciter*. Even so, it allows for a reading of the "sollen" passages that enjoys greater consistency with the position we have found elsewhere in Kant's published doctrines.[63]

I want to conclude, however, by exploring a third, somewhat more indirect interpretive route, one which draws on Kant's well-known claim that practical reason has a kind of *priority* among our higher faculties. Kant claims in the second *Critique* that "all interest is ultimately practical and even that of speculative reason is only conditional and is complete in practical use alone" (5:121).[64] In this light, I would like to offer the following suggestion:

(iii) An element of normativity can be conferred upon logical law *from without* ("accidentally," so to speak), if we consider thinking and reasoning as a necessary "means" for the fulfillment of our moral end. That is, insofar as practical

> philosophy shows us that we are categorically obligated (i.e., one *ought* unconditionally) to have volitions that take such-and-such form, and insofar as we have to think (rather than not-think) in order to will according to such forms, it would follow that we would be categorically obligated to think. If logic tells us what thinking is, and gives us criteria by which we can tell whether we are thinking or not, then it thereby tells us which mental states we *ought* to be in.

We can elaborate this proposal as follows. Suppose we can imagine that we as humans possess the freedom *not* to think—perhaps, to indulge in (e.g., hallucinatory) mental states which are "less than a dream" (A112). In this case, it might be argued that logical laws could function in hypothetical imperatives of the form: "if it is your intention to think, then you ought/must *x*." Now, according to Kant, the moral law itself functions as a categorical imperative, as it sets forth an "end in itself" for us as humans, an end which binds all of our acting and willing unconditionally. Yet thinking is surely a "condition" for such acting/willing, by virtue of the fact that it enables the formation (representation) of the requisite maxims. Since Kant takes it as axiomatic ("analytic") that, in being necessarily obligated to will the end itself, we are likewise necessarily obligated to will all of the means (here: thinking) necessary to arrive at that end,[65] this would therefore imply that the intention to think is itself one that would become categorically imperative for us to maintain.

Yet even if we find an argument of this sort to provide a convincing way to confer a sort of normativity upon logical laws, it does little to resolve the suggestion in Jäsche's passage that we might *think* otherwise that we *ought*, rather than merely *be* in other mental states than we ought. We would therefore still need to broaden the sense of "thinking" at issue in Jäsche's text beyond the technical "logical" sense that we have hitherto explored, so that "thinking" could be used here to denote simply "being" in various kinds of mental states, states which (on this hypothesis) might not even possess discernible logical structure.

In this regard, however, it might be of interest to note that the sphere of possible thinking in the *logical* sense appears to coincide with the sphere of possible *conscious* mental states—or at least this is the tenor of Kant's remarks in the B-Deduction (§16): if the "I think" cannot accompany a representation, then it is "nothing for me" (B132). If we take logical laws to tell us which types of mental states we *ought* to occupy, and these are those states which are "thoughts" in the logical sense, then (by the above argument) it would seem that Kant should take the intention to be conscious rather than unconscious as something that is categorically imperative for us. But in any case, it seems difficult indeed to make sense of our *understanding*, rather than simply our *mind*, being in such unconscious states, with this being something that the understanding can "do," but "ought" not to.

Perhaps no fully satisfactory reconciliation between these passages and the constitutive reading is possible. Let me conclude, then, by reiterating my claim that these

difficulties are less substantial than those brought about by the straightforward acceptance of the normative interpretation of Kant's logic that is prima facie suggested by the Jäsche passage. For it would seem that the constitutive reading alone makes good sense of why it is that (as we noted above at the beginning of Part V) throughout the Critical period, Kant consistently *distinguishes* between logic and all practical-normative disciplines, classifying logic under the heading of formal philosophy, and classifying practical philosophy (along with ontology) under the heading of material philosophy. Ethics in general counts as "material" because it deals with "objects" of free volition. For humans it counts as normative as well, because it has to take into account something which lies outside of the forms of thought or reason itself—namely, our capacity for free choice [Willkür]. Logic, on the other hand, is "formal" it deals solely with reason or thinking "in itself," without reference to its cooperation or application to anything "beyond" itself. Most importantly, it does not refer to any particular "end" we might hope to bring about, or to any "interest" we might hope to satisfy, by deploying our capacities for thought. In fact, given such considerations, it might well be argued, instead, that we should be much more surprised by the suggestion (implicit in Jäsche's text) that the relation which obtained between logic's laws and its subject matter *is* to be characterized in precisely the same terms as that which obtains between "material" philosophical principles and their subject matter.

In any case, I have argued here against something that I have called the "normative interpretation" of Kant's views on the nature of logical laws. Though widespread, I have contended that it runs the risk of wrongfully assimilating Kant's conception of the relation between logical laws and thinking to his views on the bindingness of the laws involved in the practical domain. More generally, I think it remains to be shown that there exists a way to view logic as dealing with a capacity which enjoys "freedom" of the sort that would seem to be required if there is to be a normative dimension (in the sense specified above) to the laws which govern the capacity at issue.

In fact, I take one of the outstanding merits of Kant's position to lie precisely in the care with which he *distinguishes* logic from other disciplines, and so distinguishes the form of specifically *logical* bindingness (or governance) from that which characterizes other sorts of (e.g., ethical, but also natural-empirical) laws. In effect, for Kant, logical laws (and their "bindingness") are *sui generis*. And I suspect that such a careful disentanglement is possible for Kant only because, unlike many of us working on such foundational questions in the philosophy of logic today, Kant takes it to be a necessary condition of having a philosophically adequate conception of logic (indeed, of any "part" of philosophy) that this conception cohere with a *universal system* of philosophy. Because of his commitment to the demands of philosophical "architectonics" (part and parcel of his view that philosophy represents a "*rational*"—i.e., inferentially unified—form of "cognition through concepts" [B741]), Kant is forced to show how each of his extraordinarily nuanced accounts of the various disciplines can be made to fit with, yet still be distinguished from, one another, such that everything is accorded its rightful place, subsumed under a

systematic division of the concept of philosophy itself.[66] And this last point offers us hope that one upshot of a recovery of a Kantian position within the philosophy of logic might be a renewed ability to reincorporate even such an apparently austere discipline as formal logic into a rich yet rigorous *philosophical anthropology*,[67] i.e., a systematic account of the basic forms of a recognizably *human* existence—an account which Kant himself projects as the very culmination of philosophy.

NOTES

In September 2005 a much earlier (and much briefer) version of this essay was read at the Tenth International Kant Congress in Sao Paolo, Brazil, as well as at the Franke Institute (Chicago) in April 2006. (That version will be published in the Congress *Proceedings* [Berlin: De Gruyter, 2007].) I want to thank Patrick Frierson for his comments during the Brazil presentation, and would also like to take this opportunity to thank Michael Kremer, Robert Pippin, James Conant, Charles Larmore, and Karolina Hübner for their comments on subsequent drafts. Let me thank as well Karl Ameriks, Andy Reath, Pierre Keller, Patrick Kain, and Sean Ebels Duggan for recent discussions of the concept of normativity in the moral and theoretical spheres, and of the difficult notion of a divine (holy) will. Finally, I want to express a special debt of gratitude to Thomas Land for joining me over the past seven years in countless hours of Kant analysis, about all of the topics in this paper and plenty others besides.

1. "In der Logic aber muß man denken, als habe man gar keinen Willen, es würde [sonst] daraus eine praktische Wissenschaft werden, wir haben daher die Wissenschaft des Denkens, und nicht des Wollens." I will cite Kant's works by way of the pagination of the "Akademie" edition, in the standard (volume #: page #) format, except in the case of the *Critique of Pure Reason*, which I will cite according to the 1787 B-edition (save for passages which are only present in the 1781 A-edition). All translations are my own, though I have consulted (and usually followed) the Cambridge editions, where available (ed. P. Guyer and A. Wood [Cambridge: Cambridge University Press, 1992–]).
2. In *The Cambridge Companion to Kant and Modern Philosophy*, ed. Paul Guyer (Cambridge: Cambridge University Press, 2006), 129–68.
3. Kant died in 1804. He had retired from teaching in 1796, and by 1800 was far from being in full possession of his philosophical powers, which, by all accounts (including his own), seemed to be failing him as early as 1798–99. See Manfred Kuehn, *Kant: A Biography* (Cambridge: Cambridge University Press, 2001), 413ff.

   In producing this text, Jäsche apparently had access to several transcripts of Kant's lecture notes, as well as the marginalia from Kant's copy of Georg Meier's 1752 *Auszug aus der Vernunftlehre*, the logic textbook from which he lectured throughout most of his forty-year teaching career. It is Jäsche's text which is typically referred to as Kant's *Logic*, though there are many questions surrounding the degree to which the views presented in this work are actually faithful to Kant's "considered" or "mature" ("Critical") position. For one thing, as J. Michael Young notes, in his "Translator's Introduction" to the Cambridge Edition of the logic lectures (*Lectures on Logic* [Cambridge: Cambridge University Press, 1992]), "we have no evidence that Kant took any role in the preparation of the manual or that he reviewed it" (xviii). Secondly, as will be evident to anyone who takes even the most cursory of looks at Akademie volume 16, which contains Kant's marginalia, a major problem with Jäsche's so-called manuscript (as Jäsche himself intimates) is that it consists in a hodge-podge of originally undated remarks, often of a quite fragmentary nature, entered into Meier's textbook throughout all stages of Kant's forty-year career as a logic lecturer. Given Kant's continuous development as a philosopher throughout this time, the difficulties in constructing a single text from these entries which is both internally consistent and accurately representative of any particular moment in Kant's thought are both obvious and considerable. Compare Terry Boswell, "On the Textual Authenticity of Kant's *Logic*," *History and Philosophy of Logic* 9 (1988): 193–203.

Even so, as I note below (Part IX), with respect to the particular Jäsche-passage in question, similar sentences can be found in other lecture transcripts and in marginalia ("Reflexionen"), though these are hardly ever cited or consulted by such "normativist" interpreters.

4. In addition to Longuenesse, some other recent adherents of what I call the "normative interpretation" (though they each elaborate it with varying degrees of sophistication) include Robert Hanna, *Rationality and Logic* (Cambridge: MIT Press, 2006), chap. 7, as well as Hanna's *Kant, Science, and Human Nature* (Cambridge: Cambridge University Press, 2006); R. Lanier Anderson, "Neo-Kantianism and the Roots of Anti-Psychologism," *British Journal for the History of Philosophy* 13, no. 2 (2005): 287–323; Mary Tiles, "Kant: from General to Transcendental," *Handbook of the History of Logic*, vol. 3 (Amsterdam: Elsevier, 2004), 85–130; and John MacFarlane, "Frege, Kant, and the Logic of Logicism," *Philosophical Review* 111, no. 1 (January 2002): 25–65.
5. Later nineteenth-century representatives of a "normativist" position about logical laws include Friedrich Ueberweg (cf., his 1857 *System der Logic*, §6), Wilhelm Windelband (cf., his "Normen und Naturgesetze," and "Kritische oder genetische Methode?" in his *Präludien* [Freiburg: Mohr, 1884]) and Christoph Sigwart (cf., his 1889–1893 *Logic* [2nd ed.] §§1–3, §39). For helpful discussion of these post-Kantian normative positions, as well as relation between these views and the late-nineteenth-century debates over logical "psychologism" and the nature of logical laws in general, see Lanier Anderson (op. cit.); Eva Picardi, "Sigwart, Husserl and Frege on Truth and Logic, or Is Psychologism Still a Threat?," *European Journal of Philosophy* 5, no. 2 (1997): 162–82; Martin Kusch, *Psychologism* (London: Routledge, 1995); and Wolfgang Carl, *Frege's Theory of Sense and Reference* (Cambridge: Cambridge University Press, 1994).

   For two representatives of the "normative" approach in more recent logic textbooks, see Daniel Bonevac, *Deduction* (2nd ed.; Oxford: Blackwell, 2003), and R. M. Sainsbury, *Logical Forms* (2nd ed.; Oxford: Blackwell, 2001). Several philosophers have tried to provide a systematic, philosophical grounding for this sort of position, the most well known of which may be Robert Brandom; see his *Making It Explicit* (Cambridge: Harvard University Press, 1994), especially 12f and 113f.
6. I want to emphasize here that I do not in any way want to claim (now, or in Part II, or at any other point) that the *only* sense that the term "normative" has (or can have) is the one defined in Part II (i.e., the one that is put to work by those who put forward what I have called the "normative" interpretation).
7. In fact, it is a difficult question whether or not Kant is (or should be) willing to call "Willkür" a capacity or power in any sense. For instance, in *Metaphysics of Morals*, Kant writes that "only freedom in relation to the internal law giving of reason is really an ability [Vermögen]; the possibility of deviating [abweichen] from it is an inability [Unvermögen]" (6:226). I return to this point below.
8. I will not henceforth continue to add the qualifier contained in the parentheses, though it should be kept in mind throughout.
9. To continue the cautions from above: I do not mean to claim that every sense which might be given to the term "constitutive" is necessarily incompatible with every sense that might be given to the term "normative"—only that the senses presently at issue are incompatible.
10. This can be true of formal logic's relation to the understanding *as such*, while still leaving room (as I note below [Part VI]) for the possibility that there is some *other* set of laws—such as those Kant would identify as "transcendental-logical," "special-logical," or "applied-logical" laws—which might function as norms for some composite of capacities.
11. This alleged contrast may, however, bring to mind a certain notorious interpretation of Kant's understanding of relation between law and free action in moral sphere, in which (like my suggestion here that "logical" is equivalent to "thinkable") morally "free" activity is simply *equated* with "rational" activity. This reading is put forward perhaps most famously by Sidgwick, in the sixth 1901 edition of his 1874 *The Methods of Ethics*, I.5 ("Free Will"), as well as in the appendix to this work ("The Kantian Conception of Free Will"; originally published in *Mind* 13.51[1888]). To address the difficulties which face this sort of interpretation of the moral sphere would unfortunately take us too far afield; for some discussion, see Christine Korsgaard's *Creating the Kingdom of Ends* (Cambridge: Cambridge University Press, 1996), 171f; and Allen Wood, *Kant's Ethical Thought* (Cambridge: Cambridge University Press, 1999), 173f.

12. Douglas Lavin provides a substantial catalogue of relevant citations from prominent "normativity"-theorists (e.g., Robert Brandom, John McDowell, Christine Korsgaard) on this point—though with an emphasis on the nature of normativity in *practical* reasoning—in his "Practical Reason and the Possibility for Error," *Ethics* 114 (April 2004): 424–57.
13. For alternative formulations of conditions (1) and (3), compare Lanier Anderson (op. cit.): "[(1)] Normative rules are such that their validity cannot *entail* the absence of exceptions; that is, the normative rule itself envisions the possibility of exceptions, even though we might find out later, on the basis of circumstances unforeseen in the rule, that the exceptions turn out not to be possible," such that "even if "ought" implies "can" (in some sense of "can"), it cannot *imply* "does" . . . [(3)]. Normative rules, then, have standing, independent of the facts they cover. They retain their validity and remain binding, even when violated in fact" (293).
14. See his "How to Talk" (1952), reprinted in *Philosophical Papers*, 3rd ed., Urmson and Warnock, eds. (Oxford: Oxford University Press, 1979). For the "classic" expression of the concept (if not the phrase), see Anscombe's contrast (*Intention*, 2nd ed. [Ithaca, N.Y.: Cornell University Press, 1963]), §32) of the direction of fit between a man shopping according to his wife's list (purchases must fit list), and a detective making his own list of the man's selections (list must fit purchases). In his "Kant's Distinction between Theoretical and Practical Knowledge" (*Harvard Review of Philosophy* 10 (2002): 49–63), Stephen Engstrom argues that, because of the understanding's active role in generating the very object of cognitions, the "direction of fit" model itself fails to fit Kant's account of theoretical knowledge. But this would seem to underestimate the obvious sense of the *objectivity*—by which Kant means (at least) validity "for everyone at every time [für jedermann und jederzeit]" (cf., *Prolegomena* §§18–19)—of (true) Kantian cognitions.
15. I say "in typical cases," since those which involve governance by laws which are freely self-imposed or due to convention (such as, e.g., political statutes) are norms which *can* be affected by the activities of those bound by these laws—namely, the activity of unbinding oneself from the specific law, rendering it null, or imposing a different law. It has been argued by a number of his readers that Kant's "revolutionary" insight is that, at bottom, *all* laws are "self-given" in this way. Below, I caution against such radically self-authorizing interpretations of Kant's language of "Selbst-gesetzgebung."
16. To take another example: geometrical law is not something which shapes can either succeed or fail to live up to, but rather provides the explication of what it is to be a shape "as such," and so separates shapes from *non*-shapes. A thought, say, is not a "failed" shape, no more than a triangle is a "failed" square. (Things might be different if we consider the relation of geometrical law to the material (technical) *production* of shapes by a geometer; cf., *Critique of Judgment* 5:172f.)

    In his *Speech Acts* (Cambridge: Cambridge University Press, 1969), John Searle draws a closely related distinction between "regulative" and "constitutive" rules, such that the former "regulate antecedently or independently existing forms of behavior," an "activity whose existence is logically independent of the rules," while the latter "create or define new forms of behavior" (33–34). (A similar contrast is drawn in Rawls, "Two Concepts of Rules" [1955]; and for some discussion of both, see John Haugeland, "Truth and Rule-Following," in *Having Thought* [Cambridge: Harvard University Press, 1998].) In our discussion here, I prefer "normative," both because of the special senses given to "regulative" by Kant, and because of the current prevalence of talk of "normativity." Lavin (op. cit.) also contrasts a position he calls "imperativalism" with another he calls "constitutivism," though the sense of the latter label in Lavin's essay does not correspond to the sense that I give it in what follows.
17. Among many others who use the language of "normativity" in this context, see Allen Wood, *Kant's Ethical Thought*, 51, 79–80, 172f; Korsgaard, *The Sources of Normativity* (Cambridge: Cambridge University Press, 1996), 92f; Korsgaard, *Creating the Kingdom of Ends*, 43f.
18. The language of "self-legislation" points to the fact that the objectivity of the moral law is wholly derived from its foundation in the "timeless" (apriori) concept of pure practical reason itself. Despite what many commentators appear to think, neither its content nor its bindingness depends upon, or takes its cue from, any *actual* human acts (of free choice, etc.), either individually or collectively. With "actual," I mean to signal my agreement with Karl Ameriks against certain "constructivist" (conventionalist, or voluntarist) interpretations of Kantian moral autonomy; cf., his *Interpreting Kant's Critiques* (Oxford: Oxford University Press, 2004), 263f. Ameriks argues that, for Kant, no "act" *in history* (in time) can institute the moral law, or confer bindingness upon it, because the "Selbst" in "Selbst-gesetzgebung" picks out not an individual human self, but rather

"Vernunft" *itself*. As I suggest above, the idea that reason gives itself its own law can be understood as referring to something like the explanatory self-sufficiency of purely "rational" principles for rational behavior, principles that the concept of practical reason contains within itself.

19. As Korsgaard argues in "The Normativity of Instrumental Reason" (in *Ethics and Practical Reason*, eds., G. Cullity and B. Gaut [Oxford: Clarendon Press, 1997]), "even a perfectly rational will cannot be conceived of as *guided* by reason unless it is conceived as capable of resisting reason" (240 n. 52). Korsgaard, however, assumes that a perfectly rational will *is* "guided by" reason despite an "absence" of any temptation to resist such guidance, and so concludes that these laws can still function as norms ("oughts") for the holy will, since "it is not imperfection which places us under rational norms, but rather *freedom*, which brings with it the needed possibility of resistance as well as compliance with those norms" (ibid.; my ital.). By contrast, what I am arguing here is that there is no room to read into Kant's description of the holy will either a presence of temptation or *any* sense of "freedom" to resist despite such absence, since its "willing" is essentially (universally and necessarily) defined by non-resistance. For related criticisms of Korsgaard's understanding of the Kantian holy will, see Lavin (op. cit.), §VII.

20. In the student transcripts from Kant's 1794–95 metaphysics lectures (*Metaphysik Vigilantius*, cited in the next paragraph) Kant calls this condition the "subjective contingency [Zufälligkeit]" of a law that is a norm: "it is connected in its determination with the *possibility for the subject to deviate* [abweichen] *from the rule and to do the opposite* [Gegenteil]" (29:1016); the categorical imperative is thus an *imperative* for humans precisely because human beings have "a subjective possibility for the observation [Befolgung] of the law as well as the transgression [Übertretung] of it" (29:1018).

    In her "Kant on the Objectivity of the Moral Law" (in *Reclaiming the History of Ethics: Essays for John Rawls*, Reath, Herman, Korsgaard, eds. (Cambridge: Cambridge University Press, 1997), 240–69), Adrian Piper offers an interpretation of the moral law which is in some ways closer to the one put forward here, insofar as it takes seriously the thought that (as Piper puts it) "Kant's moral theory explicates substantive ethical principles in terms of "the universal concept of a rational being in general . . . i.e., entirely as metaphysics" (*Groundwork* 4:412), and so as categorical principles in the indicative mood" (263). Yet I cannot agree with Piper's general claim that Kant's main reason for these contentions is because "his moral theory is fashioned *primarily* with an eye to its application to rational beings in general," and especially disagree with her claim that such universal applicability is "true for Kant's metaphysics *more generally*" (264; my ital.). It would seem rather that Kant's main aim, in both the theoretical and practical domains, is to provide an account that adequately captures specifically *human* experience. It is extremely difficult (to say the least) to see how the (less-"proud") "ontology" that is generated out of the Transcendental Analytic of the understanding could be "fashioned" in such a way as to be applicable—first and foremost—to anything like what might be seen from the point of view of the divine intellect. Nor do we find any claims that the forms of objects provided by the categories would be valid of an intuitive (or infinite) intellect.

    In this regard the moral domain may be more complex, since we are supposed to occupy the very same sphere or realm ("Reich") as God, and stand under the very same laws of identical form (*GMM* 4:389, 414, 434). (Thanks to Karl Ameriks for raising this worry.) For an excellent discussion of how this point provides the key to the "anti-voluntarism" of Kant and some of his predecessors (like Leibniz and Clarke), see chapter 23 of J. B. Schneewind's *The Invention of Autonomy* (Cambridge: Cambridge University Press, 1998). I cannot see, however, what moves Schneewind to claim that Kant thinks that the moral law "constitutes a *synthetic* necessity in all rational wills, God's as well as our own" (521; my ital.), since (as noted above) Kant states to the contrary that the moral law follows "analytically" from the concept of a purely rational will.

21. Compare H. J. Paton, *The Categorical Imperative* (Philadelphia: Pennsylvania University Press, 1971): "In his later works . . . Kant makes a distinction between will (Wille) and *arbitrium* (Willkür). Will in this technical sense is concerned only with the law and so seems to be equivalent to pure practical reason: it is said to be neither free nor unfree" (213).

22. This denial that Wille is "free" might seem to raise questions about the aforementioned (quasi-Leibnizian) sense of "freedom" that Kant does seem to ascribe to a being who consists solely of rational capacities (i.e., a holy will), though the context suggests that what Kant has in mind in this denial is the "freedom" that characterizes our capacity for "free choice."

23. As the third *Critique* puts it (§76), the moral law takes an indicative form (says what "is") when

"reason is considered without sensibility," such that "its causality" would be in "thoroughgoing correspondence with the moral law, where there would be no distinction between what should be done and what is done [zwischen Sollen und Tun]" (5:404).

24. This would be part of the task of a philosophical anthropology. Compare Kant's May 4, 1793, letter to Carl Friedrich Stäudlin, in which Kant claims that the traditional branches of philosophy (metaphysics, ethics, and religion) are organized around certain fundamental questions—namely, what can I know [wissen]?, what ought [soll] I to do?, and what can I hope for?—such that a *fourth* question should follow: what is man? [Was ist der Mensch?] (11:429). The burden of answering this question would fall to a fourth discipline (anthropology), which would represent the ultimate discipline. For Kant, part of the philosophical worth of these three traditional disciplines, then, lies in their *instrumental* value, insofar as their findings further the goal of the construction of an answer to the question of humanity. The identification of the special significance of these four questions, along with the derivation of a similar relation between them, is repeated in Jäsche's *Logic*, "Introduction" §III (9:25); compare also the so-called Pölitz, 1790–91 *Vorlesungen über die Metaphysik* (28:533–34). For some discussion of what a Kantian philosophical anthropology might look like, as well as an inquiry into the role that these four questions might play in Kant's work, see especially Heidegger's 1929 "Kant-Buch," *Kant and the Problem of Metaphysics*, tr. R. Taft (Bloomington: Indiana University Press, 1997), §§36 et seq.

25. The point at issue is stated nicely in *Metaphysics of Morals*: "a metaphysics of morals cannot be based [gründet] upon anthropology but can still be applied [angewandt] to it," such that the application yields a "moral anthropology" as the "counterpart [Gegenstück]" to metaphysics (6:217).

    Though I cannot pursue this here, it might be argued that the case involving the "free choice" of humans actually represents, for Kant, the *original* form in which normativity manifests itself, with the other cases (e.g., the teleological laws of animal behavior and development) being counted as normative only *derivatively* (i.e., only due to the regulative demands of *our* subjective capacities for systematic explanation, as discussed in the Transcendental Dialectic and the third *Critique*), on analogy with the distinction between original and derivative intentionality in Robert Brandom, *Making It Explicit* (Cambridge: Harvard University Press, 1994), 58f; and John Haugeland, "The Intentionality All-Stars" (1990), reprinted in *Having Thought* (Cambridge: Harvard University Press, 1998), 129f.

26. Or put more carefully: we can both make, and fail to make, accord with moral law the reason or ground for our acts.

27. Meier's text is reprinted in volume 16 of the Akademie edition, which also includes the Reflections on logic. It has been argued that Kant used the complete *Vernunftlehre* ("Doctrine of Reason") during his first two semesters (1755–56), before switching to the abridged version (*Auszug*) of Meier's work for the remainder of his career. Cf. Riccardo Pozzo, "Prejudices and Horizons: G. F. Meier's *Vernunftlehre* and Its Relation to Kant," *Journal of the History of Philosophy* 43, no. 2 (2005): 185–202.

28. This, despite Kant's apparent esteem for Christian Wolff's—and by extension, Meier's—teachings on logic in particular. In Jäsche's 1800 edition of Kant's notes on logic, we find the following judgment: "The general logic of Wolff is the best we have . . . Baumgarten, a man who has much merit here, concentrated the Wolffian logic, and Meier then commented again on Baumgarten" (§II, 9:21). This repeats a claim made in the 1790s *Vienna Logic*: "Among the moderns, Leibniz and Wolff are to be noted. The logic of Wolffius is the best to be found. It was subsequently condensed by Baumgarten, and he was again extended by Meier" (24:797).

29. It is worth pointing out that Meier's use of "Erkenntnis" is somewhat broader than Kant's own, as it is extended to include *all* representations (§11, 16:76), whereas Kant's term is (officially) only meant to cover *objective* perceptions (B376). This difference is, however, largely irrelevant for the present discussion.

30. In the "Introduction" (§I) of the *Metaphysics of Morals*, Kant aligns the "will [Wille]" and our capacity for "free choice [Willkür]" with our "capacity for desire [Begehrungsvermögen]" (6:213). Cf., §I of the published "Introduction" to Kant's 1790 *Critique of Judgment* (5:172). Kant's own discussion of practical propositions in his lectures from Meier's text typically introduce the idea of free activity; cf., *Vienna Logic*: "When a proposition is a proposition that commands, an *imper-*

ativus, and says that something *ought* to happen, then it is a practical proposition[;] it says which free actions [freie Handlungen] would be good for a certain purpose" (24:900). Compare also the sections entitled "Psychology" in the student transcripts of Kant's lectures on metaphysics.

On the difference between capacity and force or power ("Vermögen" and "Kraft"), compare the following comment by Kant's student, Johann Christian Kiesewetter, in a "Remark" to §12 of his *Grundriß einer allgemeiner Logic nach kantischen Grundsätzen* (Berlin: La Garde, 1791; 4th ed., 1824): "A capacity [Vermögen] is the inner ground of the possibility of a thing [Sache]; a power [Kraft] is the inner ground of its actuality [Wirklichkeit]" (12). (This text, by the way, is at the center of a particularly interesting episode in the history of Kantian logic: Kant [apparently] thought that, in this text, Kiesewetter is guilty of plagiarizing his own lectures [or lecture notes]. See G. Lehmann's "Bemerkungen zu dem Brief Kants an Kiesewetter vom 27. März 1790" [in *Kant-Studien* 55, no. 2 (1964): 244–49].)

31. Compare, e.g., 1780s *Vienna Logic*: "there is no practical part in logic" (24:794); 1790s *Dohna-Wundlacken Logic* (24:700, 751); in Jäsche's *Logic*, §II (9:17).
32. For the preface to the *Groundwork*, cf. 4:387f; for the unpublished and published "Introductions" to the third *Critique,* see 20:195f and 5:171f respectively. For a discussion of the circumstances which caused the existence of the two versions of the "Introduction," see Paul Guyer's "Editor's Introduction" to the Cambridge edition of the third *Critique* (Cambridge: Cambridge University Press, 1998), xlii–xliii. For the threefold distinction, see also the *Metaphysik von Schön* (28:468).
33. I will argue below in Part VI that Kant actually takes formal logic to be "prior" to pure morals in the order of dependence-relations among disciplines.
34. Claims about spontaneity are scattered throughout the first *Critique*'s "Transcendental Analytic": cf., among other places, B74, B93, B129–30, B162n.
35. For McDowell's construal of the spontaneity of the understanding as consisting in the more robust sense of freedom required of the normative interpretation, see both his *Mind and World* (Cambridge: Harvard University Press, 1996), and his 1997 Woodbridge lectures (*Journal of Philosophy* 95.9 [1998]). To take just one example from *Mind and World*: "When Kant describes the understanding as a faculty of spontaneity, that reflects his view of the relation between reason and freedom: rational necessitation is not just compatible with freedom but constitutive of it" (5).
36. That a certain sort of "freedom of thought" is possible is crucial to Kant's famous 1784 call to "Aufklärung" (8:41–42).
37. Relevant passages include (1) the 1770s Pölitz lectures (28:266–69); (2) the 1783 review of Schulz (8:13f); (3) the 1785 *GMM* (4:448). This "short" argument has been discussed in, e.g., Karl Ameriks, *Kant's Theory of Mind*, 2nd ed. (Oxford: Oxford University Press, 2000), 190–210; Henry Allison, *Kant's Transcendental Idealism*, 1st ed. (New Haven, Conn.: Yale University Press, 1984), 316–25; Robert Pippin, "Kant on the Spontaneity of Mind," reprinted in *Idealism as Modernism* (Cambridge: Cambridge University Press, 1997), 52–53. All three agree that Kant gave up hope in such a "proof" sometime after 1785.
38. The *Dohna-Wundlacken Logic* transcript weighs in somewhere between the *Vienna* and *Jäsche* positions, as it ties "freedom" [Freiheit] to suspension of judgment [*suspensio judicii*], which occurs "by choice [willkürlich]" and is "the mean between holding-true [Fürwahrhalten] and rejecting [Verwerfen]" (24:736).

    Note that Jäsche's construal of Kant's position puts fairly direct pressure on readings which want to extend this sense of "freedom," here ascribed to the capacity for "holding-true," to Kant's talk of the "spontaneity" of judgment in general. In addition to Keller and McDowell (opera cit.), Korsgaard also seems to subscribe to this sort of reading in those works cited above. This, however, would align Kant's position too closely with one that is more happily at home in the *Cartesian* framework. Recall the picture of judgment Descartes puts forward in the third and fourth *Meditations*, as a synthesis of intellect and will. For criticism of this sort of interpretation, see Adam Dickerson, *Kant on Representation and Objectivity* (Oxford: Oxford University Press, 2004), 36f; and for sharp criticism of this sort of position in general (with direct reference to McDowell and Korsgaard, and their versions of Kant), see David Owens, *Reason without Freedom* (London: Routledge, 2000).
39. Similarly, claims like the *Prolegomena*'s statement that, "when an appearance is given to us, we are

still quite free as to how we choose to assess the matter [die Sache beurteilen]" (4:290), need not automatically imply that we have any "freedom" or choice with respect to whether or not, say, the "form" of the thought about the appearance will be "in accord with" the logical functions of unity in judgment (whether or not, say, we can take the appearance to be determined by both a predicate and its contradictory).

40. A similar point is repeated in the Jäsche's own text ("Introduction," §I): "All rules according to which the understanding operates [verfährt] are either necessary or contingent. The former are those without which *no use of the understanding would be possible at all*" (9:12; my ital.).
41. The controversy with Eberhard takes places in an essay entitled: "On a discovery whereby any new critique of pure yeason is to be made superfluous by an older one."
42. In *Journal of Philosophy* 78, no. 8 (August 1981): 458–82. I am indebted to Michael Hardimon for pointing me to this essay, in which Thompson argues for what he calls a "neo-Tractarian or neo-Kantian way of speaking about logic" (472).
43. From thought's point of view, this some "thing" which fails to meet the demands of logic is a *nihil negativum*, an absolute *non*-thing "opposed to possibility" (B348; cf., B624n).

    Following up on the consequences of these points would require us to sort through Kant's doctrines concerning indirect (apagogic) proofs, and to see whether Kant would recognize anything like a purely "logical" *reductio*. In the Doctrine of Method, Kant actually cautions against the use of this proof indiscriminately; e.g., the proofs of "pure reason" must "never be apagogic" (B817); "Apagogic proof, however, can be allowed only in those sciences where it is impossible to substitute that which is subjective in our representations for that which is objective, namely the cognition of what is in the object" (B819)—"in *mathematics* this subreption is impossible; hence apagogic proof has its proper place there" (B820). The fact that this style of reasoning doesn't hold good for *all* contexts should entail that it cannot be counted as a purely formal-*logical* principle.

    It might also be open for Kant to take a line similar to that put forward by Fred Sommers, in his reconstruction of "term-logic" in *The Logic of Natural Language* (Oxford: Clarendon Press, 1982), that *reductio* (and, more generally, various forms of negation) essentially involves a moment of "semantic ascent" (or in his words, involves a judgment of a higher semantic "valence" than the initial predicative unities, as does all *de dicto* negation in Sommers's account). Something of significance in this regard is the fact that, for Kant, logic is not in the first instance about language or a formal language or a symbolic system for the expression of thought, but rather about *thought itself*. Within a formal language, "reductio" proofs might be construed via semantic ascent as proofs of the inability of certain sign-strings to count as *expressions* of thought.
44. Again, Jäsche's text ("Introduction," §VII) includes similar statements (9:53–54); Cf., also, *Vienna Logic* (24:824). And among many *Reflexionen*, see R2142 [1776–78] (16:250).
45. It is perhaps in a science which investigated such a cooperative "plane" of cognitive activity that the normative rules for "holding-true" would be contained.
46. For the Leibnizian uses of "spontaneity" and "freedom" that I have in mind, see (among other places) his 1686 *Discourse on Metaphysics* §§32–33; his 1695 *New System of the Nature and Communication of Substances*; and his 1698 *On Nature Itself*, §10. My citations to Leibniz's work will be to Carl Immanuel Gerhardt's *Die philosophischen Schriften von ottfried Wilhelm Leibniz*, 7 vols. (Berlin, 1875–90); cited as "G."
47. Leibniz discusses this principle of sufficient reason in a variety of places, including perhaps most famously his 1710 *Theodicy* and his 1715–16 correspondence with Samuel Clarke (see especially Leibniz's 2nd Letter, §1; 3rd Letter, §§7–8; and 4th Letter, §§1–5). Leibniz writes in II.21.13 of the *Nouveaux Essais* that the principle that "nothing happens without a reason [rien n'arrive sans raison]" is a "fundamental axiom" of his thought, "without which the existence of God and other great truths could not be properly demonstrated" (G v.164).
48. For the identification of God's nature, his understanding, and the source of the relevant "happy necessity" of reason, see *Theodicy*, §191: "This so-called *fatum*, which binds even the Divinity, is nothing but God's own nature, his own understanding, which furnishes the rules for his wisdom and his goodness; it is a happy necessity, without which he is neither good nor wise" (G vi.230). In his April 3, 1716, letter to Louis Bourguet, Leibniz makes the even more general claim that "ideas or essences are all founded [fondées] on a necessity which is independent of wisdom, convenience, and choice" (G iii.592). (The inclusion of "wisdom [sagesse]" here is possibly a slip, since

in *Theodicy* §7, Leibniz identifies "wisdom" and "understanding [entendement]," and claims that God's "understanding is the source of *essences*" (G vi.107).)

49. For Kant, however, there will be something essentially problematic in saying that the logical laws are "eternally" true, given, first, the inability to prove the immortality of the thinking subject, and secondly, Kant's unwillingness to go along with Leibniz's identification of the forms and laws which govern our understanding with those which will characterize God's. For Kant, ours is a finite, discursive intellect, which requires acts of synthesis, while God's intellect is infinite and intuitive. Nevertheless, these differences, though substantial, do not affect the point at issue.
50. Pinkard, *German Idealism, 1760–1860*, (Cambridge: Cambridge University Press, 2002), 59.
51. Charles Larmore's stronger opinion (in his *Les pratiques de moi* [Paris: Presses Universitaires de France, 2004]) is that, where Pinkard sees a paradox, "I see a contradiction" (149n.1), since "there is not any place outside of normativity from which thought would be able to effect, by some inaugural gesture, its entrance into this domain" (149). (This comes after a comment about the efforts of Fichte to escape such a paradox, which lead to a conclusion that "tips over into nonsense" [ibid.].) Larmore takes this "contradiction" to afflict Kant's own position, and, in a recent essay ("Back to Kant? No Way") he criticizes Karl Ameriks for trying to defuse this sense of paradox in a manner similar to one I've suggested above. (For Larmore's essay and Ameriks' reply, see their exchange in *Inquiry* [June 2003]: 46.2.)
52. Charles Parsons makes this point with regard to logic in his "Kant's Philosophy of Arithmetic," reprinted in *Mathematics in Philosophy* (Ithaca, N.Y.: Cornell University Press, 1983), 118. Recall in this regard, Keller's construal of spontaneity (cited above): the capacity necessary for an individual to be able to "come to see him- or herself as *having chosen to be bound* by [certain principles] in his or her behavior" (op. cit.; my ital.).
53. This tempers, perhaps, the extent to which Kant is (or means to be) fully "revolutionary" in his talk of the "self-legislation" of reason, though there can be no doubt that many writing in the "Kantian aftermath" would like to read such radical freedom into Kant's language here, insofar as they see a more radical position as essential to the possibility of a true "break" with the Rationalist dogmatism of Kant's predecessors. For the first word of what has surely become by far the most interesting, sophisticated, and careful attempt to read into Kant (at least) an anticipation of just this sort of understanding of the "self-binding" of reason by itself, see Robert Pippin's *Modernism as a Philosophical Problem* (1st ed., 1991; 2nd ed., Oxford: Blackwell, 1999).
54. This interpretation brings us close to aspects of Wilfrid Sellars's position in his 1970 APA presidential address ("This I or He or It (the thing) which Thinks," reprinted in his *Essays in Philosophy and Its History* [Dordrecht: Reidel, 1974]). There Sellars suggests (§57 et seq.) that the "spontaneity" of the understanding can be construed on the "model" of the functional determination of a computer process, as "following a routine" (§59). In her *The Unity of Reason* (Oxford: Oxford University Press, 1994), Susan Neiman likewise describes the understanding's operations as "routine, automatic, and mechanical" (49), though I think she makes too much of the alleged "priority" of practical reason, and also fails to note Kant's explicit insistence (in the second *Critique*, cited above) that there are logical conditions on having a capacity *at all*, which make no reference to ends or interests which the capacity can be used to attain.

    In general, however, we have to be on guard not to make the understanding out to be too mechanical, in the sense of being "blindly" so; self-consciousness is essential. (On this point, compare *Metaphysik Volckmann* (28:449).) Doug Lavin (op. cit.) calls this insistence on the necessity of self-consciousness in distinctly "rational" activity the "participation requirement" (444). Yet I want to insist (with David Owen (op. cit), and against Korsgaard [*Sources of Normativity*]) that the self-consciousness at issue in the formal-logical analysis of thought—the sense in which we participate in and are conscious of the formation of judgments—need not imply any *control* over (or any ability to "guide") the relevant activity.
55. For a partial exploration of the connection between Kant and the *Tractatus* on this point, see Manley Thompson ("On *a priori* Truth"). Insofar as the early Wittgenstein, unlike Kant, does not flirt at all with the language of "oughts" in his discussion of logic's bindingness upon thought, Eva Picardi might well be right in her claim (op. cit.) that "[t]he most thorough rejection of the conception of logic as a normative science is to be found in Wittgenstein's *Tractatus*" (170).

    Note that, strictly speaking, Kant thus should deny us the ability to "hold-true" something

illogical as well, insofar as this capacity presumes that the item at issue is already a thought. By contrast, Frege at times—and despite his overt commitment to antipsychologism—seems to countenance a construal of logic as normative for our capacity for "holding-true," and so by implication countenances the possibility of "holding-true" that which is illogical. See his 1897 "Logic" (in his *Posthumous Writings*, tr. Long and White, ed. Hermes, Kambartel, and Kaulbach [Oxford: Basil Blackwell, 1979], 145f), where he implicitly extends the scope of "thinking" to include *illogicalia*, precisely on analogy with the possibility of actual immoral behavior, writing that "thinking, as it actually takes place, is not always in agreement with the laws of logic any more than men's actual behavior is in agreement with the moral law" (145).

In any case, a position which does not rule out illogical thought (allegedly held by Russell in the 1900s–1910s) is criticized (from a quasi-Kantian point of view) by the early Wittgenstein, who claims in the *Tractatus* (§5.5422) that "[t]he correct explanation of the form of the proposition "A judges *p*" must show that it is impossible to judge nonsense. (Russell's theory does not satisfy this condition.)" (This point is made as early as the 1913 "Notes on Logic" [3rd MS]): "Every right theory of judgment must make it impossible for me to judge that this table penholders the book. Russell's theory does not satisfy this requirement" (103, in the appendix to the 2nd edition of Wittgenstein's *Notebooks 1914–1916*, ed. von Wright and Anscombe (Oxford: Basil Blackwell, 1979]).

56. Kant says as much in §5 of this essay: "now, it might at this point occur to someone to suppose that . . . the three [hybrid] figures would, at worst, be useless, but not actually false. But if one considers the intention which inspired their invention and continues to inspire their presentation, one will come to a different view of the matter" (2:55–56).
57. In his "The Search for Logically Alien Thought" (*Philosophical Topics* 20,1 [Fall 1991]: 115–80), Conant defines "an *illusion of thought*" as "the manufacturing of an appearance of sense where no sense has been made" (134). Conant's essay brings out the importance of "illusion" as a technical, diagnostic category in both Wittgenstein's *Tractatus* and in Kant's own efforts to uncover transcendental illusion in the Transcendental Dialectic. Below I extend this analogy with a similar proposal for Kant's understanding of *logical* illusion. Conant's essay also contains a rich treatment of the historical development (from Aquinas, through Descartes, Leibniz, Kant, Frege, Wittgenstein, to Hilary Putnam) of some of the central themes involved in what I have been calling a "constitutive" understanding of logic—especially regarding the "problematic" status of "unlogical" thought within this tradition. Even so, Conant does not appear to find any of the tensions latent in Kant's own writings—tensions, that is, between what I have called Kant's "Leibnizian" prioritization of understanding to will and his commitment to the absolute impossibility of illogical thought, on the one hand, and the sentences from Jäsche which motivate the standard, "normative" interpretation, and its implicit commitment to the possibility of such *illogicalia*—that Conant puts on full display in his insightful treatment of this problematic through Wittgenstein's discussions of logic in the *Tractatus*.
58. "Prolegomena," vol. I, Halle: Max Niemeyer, 1900; *Investigations* I–VI, vol. II, 1901. J. N. Findlay's 1970 translation of the "Prolegomena" can be found in *Logical Investigations,* Volume 1 (London: Routledge, 2001). Citations, however, will be to the original German pagination, and the translation here is my own.
59. That is, at least "sensibility" as it is treated in the Transcendental Aesthetic. Things will be quite different if we consider the treatment of sensibility in the third *Critique*. (It is "aesthetic" in this latter sense that Ueberweg, Frege, and others take to be "normative.")
60. One thinks here as well of Klaus Reich's well-known dismissal of Jäsche's *Logic* in his 1932/48 *The Completeness of Kant's Table of Judgments* (tr. J. Kneller and M. Losonsky [Stanford: Stanford, University Press, 1992]), in which Reich claims that Jäsche's text should be counted as a piece of secondary literature *on* Kant, rather than a work *by* Kant (117 n. 19). (For further discussion of Jäsche's text, see the works cited in note 3 above.)
61. Cf. R1627 [1790s]: "Not according to which rules we do think—rather, *should think* [denken sollen]. Not psychology" (16:43); R1628 [1780s]: "[Logic] investigates, not how the understanding does think and what happens, rather (it teaches) what *should* happen [geschehen soll], i.e., how it *ought* to think [denken soll]" (16:46; my ital.); see also R1692 [1780s] (16:47); R1612 [1773–77] (16:36). In the lectures, see *Vienna Logic* [1780s] (24:791–92); *Dohna-Wundlacken Logic* [1790s] (24:694).

62. This is, roughly, the suggestion put forward by Anita Kasabova, one of the only recent commentators to attend to some of the obstacles which face any (robustly) normative interpretation. See her "Is Logic a Theoretical or Practical Discipline? Kant and/or Bolzano," *Archiv für Geschichte der Philosophie* 84 (2002): 319–33. In this essay, Kasabova is (by and large) repeating points made by Rainer Stuhlmann-Laeisz in his *Kants Logic* (Berlin: de Gruyter, 1976). Both Kasabova and Stuhlmann-Laeisz construe this sort of normativity as "trivial."

    On this, compare Frege's remark in the "Preface" to *Grundgesetze* I (Jena: Pohle, 1893): "Every law, which says what *is*, can be taken as prescribing that one *should* think in accord with it [Jedes Gesetz, das besagt, was ist, kann aufgefasst werden als vorschreibend, es solle im Einklange damit gedacht werden]" (xv; my ital.).

63. A further option might be to finesse the translation of the Jäsche passage—along the lines of Gary Hatfield's rendering of similar wording in *Prolegomena* §2—and make "sollen" read, not: how Verstand "should," but: how it "is required to" think (cf., *Theoretical Philosophy after 1781* [Cambridge: Cambridge University Press, 2002], 65). But this seems somewhat desperate, and possibly an over-stretch of the German, a fact indicated by Guyer and Wood's decision to translate the passage in the B-edition "Introduction" corresponding to *Prolegomena* §2 (which contains the very same "sollen"-wording) with "should." (That the rest of the Cambridge Edition also follows the policy of translating "sollen" as "should" with near-uniformity also would make such a move appear very "ad hoc.")

64. On the priority of the practical, compare also the "Appendix" to the "Introduction" to Jäsche's *Logic*: "In the end everything comes down to the practical, and the practical worth of our cognition consists in this tendency of everything theoretical and all speculation in regard to its use. This worth is unconditioned, however, only if the end toward which the practical use of the cognition is directed is an unconditioned end. The sole, unconditioned, and final end (ultimate end) to which all practical use of our cognition must finally relate is morality" (9:87).

65. Kant claims that this end-means point is "analytical" in the *Groundwork*: "Whoever wills the end also wills (insofar as reason has decisive influence on his actions) the indispensably necessary means to it that are within his power. This proposition is, as regards the volition, analytic" (4:417).

66. For an excellent discussion of the pivotal, if problematic role of systematicity in Kant's philosophy and especially in the "systems" of his German Idealist successors, see Paul Franks, *All or Nothing: Systematicity, Transcendental Arguments, and Skepticism in German Idealism* (Cambridge: Harvard University Press, 2005).

67. Kant's own prioritization within philosophy of the "question of man" ("Was ist der Mensch?"), and with it, anthropology, can be seen in those passages cited above in note 24. For a more recent discussion of these topics, see Jonathan Lear's analysis of the tensions inherent in any broadly Kantian, "transcendental" approach to "anthropology" (particularly as this is pursued by the later Wittgenstein) in Lear's 1986 essay "Transcendental Anthropology," reprinted in his *Open Minded: Working out the Logic of the Soul* (Cambridge: Harvard University Press, 1998), 247–81.