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# **Kant's Productive Ontology: Knowledge, Nature and the Meaning of Being**

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A thesis submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy in Philosophy

University of Warwick, Department of Philosophy  
September 2003

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## Acknowledgements

There are many people, both in the UK and in Canada, to whom I am grateful for help at various stages of research and writing, only a few of whom I am able to name here. First I would like to thank my parents, Barry Lord and Gail Dexter Lord. They strongly encouraged me to start this project, and their constant encouragement has enabled me to finish it. Second, I would like to thank my supervisor, Prof. Stephen Houlgate, for the enormous amount of support he has provided over the last two years. His interest in the project, his always thorough comments on earlier drafts of the thesis, and his enthusiasm for reading and discussing Kant have been hugely helpful. I would also like to thank Prof. Andrew Benjamin for his supervision and encouragement in the initial stages of research, and for sparking my interest in Kant. Amongst my friends I would like in particular to thank Tim Thornton and Hector Kollias, whose love, support and good humour have kept me working on the thesis these past four years, preventing me from giving up philosophy when I was at my most despondent.

I gratefully acknowledge the financial assistance of the Social Sciences and Humanities Research Council of Canada for a one-year Doctoral Fellowship. I am also grateful to the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom for the financial assistance of the Overseas Research Scholarship throughout my doctoral studies.

## Declaration

I declare that this thesis is my own work and that no part of it has been submitted for a degree at another university. An earlier version of chapter one has been published under the title “Kant’s Productive Ontology” in *Pli: The Warwick Journal of Philosophy*, vol. 14 (2003).

## Abstract

In this thesis I provide an interpretation of Kant's theories of knowledge, nature, and being in order to argue that Kant's ontology is a productive ontology: it is a theory of being that includes a notion of production. I aim to show that Kant's epistemology and philosophy of nature are based on a theory of being as productivity. The thesis contributes to knowledge in that it considers in detail Kant's ontology and theory of being, topics which have generally been ignored or misunderstood.

In arguing for Kant's productive ontology, I argue against Heidegger's interpretation of Kant, which states that Kant understands being as "produced permanent presence" or as divinely created materiality. Based on Kant's definition of being as positing, I argue, by contrast to Heidegger, that Kant understands being as the original productive relation between subject and object. This can also be expressed as the relation between formality and materiality, or between epistemic conditions and existence, that is productive of objects of experience. Being is not producedness but a relation of productivity, through which both subject and object are themselves productive. The subject is productive in its spontaneity, and nature, determined as dynamical interaction, is interpreted as productive. The subject, I will argue, does not understand nature *as produced*, but approaches it with a comportment towards its *production* as object of experience. Because of its own subjective productivity — spontaneity or "life" — the subject has a "productive comportment" towards nature.

Ontology, I claim, concerns the realm of the productive relation of being, the realm of the relation between epistemic conditions and existence, and therefore the realm of possible experience. This marks Kant as divergent not only from what Heidegger calls "the ontology of the extant", but also from the concept-based ontology of the German rationalists.

The general aims of the thesis are, first, to argue that being for Kant is the original relation between subject and object, and that ontology concerns this relation; second, to argue that ontology and being are understood in terms of production and productivity; and third, to argue that Heidegger is wrong to ascribe to Kant an understanding of being as "produced permanent presence". I approach these aims by examining a number of Kant's texts in detail, focusing particularly on Kant's theses about existence and being in *The One Possible Basis for a Demonstration of the Existence of God* and the *Critique of Pure Reason*; on Kant's philosophy of nature and dynamical matter in the *Transcendental Analytic* and *Metaphysical Foundations of Natural Science*; on Kant's doctrine of experience and objectivity in the *Transcendental Deductions*; on ontological reflection and the productive comportment of "life" in the *Critique of Judgment*; and on Kant's final theory of matter, life and production in the *Opus Postumum*.

## List of Abbreviations

### Works by Kant

As is customary, citations from the *Critique of Pure Reason* refer to the pagination of the 1781 and 1787 editions (A and B). Citations from Kant's other texts refer to *Akademie* (Ak.) pagination (*Kants gesammelte Schriften, herausgegeben von der Deutschen Akademie der Wissenschaften* in 29 volumes [Berlin: Walter de Gruyter, 1902-]). In the case of the *Opus Postumum* and *Lectures on Metaphysics*, which are spread over more than one *Akademie* volume, references to volume number are included, as are references to page numbers in the Cambridge edition English translation.

- CPR*            *Critique of Pure Reason*, trans. Norman Kemp Smith (London: Macmillan, 1929)
- CJ*             *Critique of Judgment*, trans. Werner S. Pluhar (Indianapolis: Hackett, 1987)
- LM*             *Lectures on Metaphysics*, trans. and ed. Karl Ameriks and Steve Naragon (Cambridge: CUP, 1997)
- MFNS*         *Metaphysical Foundations of Natural Science*, trans. James W. Ellington in *Philosophy of Material Nature* (Indianapolis: Hackett, 1985)
- OP*             *Opus Postumum*, trans. Eckart Förster and Michael Rosen, ed. Eckart Förster (Cambridge: CUP, 1993)
- OPB*           *The One Possible Basis for a Demonstration of the Existence of God*, trans. Gordon Treash (Lincoln: U of Nebraska P, 1979)

### Works by Heidegger

Citations refer to pagination in the English translation.

- BPP*            *The Basic Problems of Phenomenology*, trans. Albert Hofstadter (Bloomington: Indiana UP, 1982)
- KPM*           *Kant and the Problem of Metaphysics*, trans. Richard Taft (Bloomington: Indiana UP, 1990)
- WT*            *What is a Thing?* trans. W.B. Barton Jr. and Vera Deutsch (South Bend, IA: Gateway Editions, 1967)

### Other works

- KDR*           Gerd Buchdahl, *Kant and the Dynamics of Reason* (Oxford: Blackwell, 1992)

# Introduction

## 1. The theme and aims of the project

That we have insight into nothing except what we can make ourselves. First, however, we must make ourselves. Beck's original representing.<sup>1</sup>

This marginal comment from Kant's *Opus Postumum* suggests a relation of knowledge to production; specifically, a relation of the conditions of possible knowledge to what the subject makes. It suggests, also, that a subjective self-making must precede that relation. Kant's remark on "Beck's original representing" gives us a context for these lines: Jakob Sigismund Beck, writing explanatory excerpts of Kant's texts in 1796, claimed that Kant's notion of the relation of understanding to objectivity must be understood in light of the "original mode of representing".<sup>2</sup> Original representing was, for Beck, the original synthesizing activity of understanding on which all objects and concepts depend:

There really is no original representing "of an object", but simply an original representing. For whenever we have the representation of an *object*, it is already every time a concept, that is, it is already always the attribution of certain determinations by means of which we fix for ourselves a point of reference [...]. The transcendental statement, "the understanding posits a something originally", is what first of all gives sense and meaning to the empirical statement, "the object affects me". For the first statement is the

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<sup>1</sup> Immanuel Kant, *Opus Postumum*, ed. Eckart Förster, trans. Eckart Förster and Michael Rosen (Cambridge: CUP, 1993), Ak. 22:353, p. 114. Hereafter abbreviated to *OP*.

<sup>2</sup> *OP* pp. 271-2, n. 68.

concept of the original representing itself in which all the meaning of our concepts has to be grounded. Indeed, the concept I have of my understanding as a faculty in me, even the concept I have of my own *ego*, receives its sense and meaning in the first instance from this original positing.<sup>3</sup>

Beck interprets Kant to be saying that original representing in general, in which the understanding posits a something in general, is the condition of possibility for experiencing that an object affects the subject. This original representing in general precedes the always-already conceptualized representation of *objects*, and, Beck implies, makes possible the concept of the self as the subject of representations. Beck's "original representing" is an original relation between the understanding and the world, in which the conditions for objectivity and subjectivity are established. It is clear, however, that original representing comes from the spontaneity of the subject: the subject brings about the conditions for objectivity and subjectivity. In so doing, the subject brings about the conditions for possible knowledge. Those things into which we can have insight are "made" by the understanding, in the sense that the understanding establishes the original relation to the world.

We see similar passages, associating knowledge with production, in the first and third *Critiques*. With reference to the progress of natural science in the Preface to the B edition of the *Critique of Pure Reason*, Kant famously says that with the recognition of the importance of experimentation came the recognition that "reason has insight only into that which it produces after a plan of its own".<sup>4</sup> It is the adoption of experimental science, and thus the realization of the importance of the active *relation* of reason to nature, that leads to the conclusion that knowledge always involves the *production* of knowledge. Similarly, in the *Critique of Judgment*, Kant says that "we have complete insight only into what we

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<sup>3</sup> J.S. Beck, *Explanatory Abstract of the Critical Writings of Prof. Kant*, trans. George di Giovanni, in di Giovanni and H.S. Harris (trans.), *Between Kant and Hegel* (Indianapolis: Hackett, 2000), 204-49, here at pp. 221, 229. Emphasis added.

<sup>4</sup> Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (London: Macmillan, 1929), B xiii. Hereafter abbreviated to *CPR*, with references to the A and B editions.



can ourselves make and accomplish according to concepts”.<sup>5</sup> Here, this principle serves to limit the bounds of possible knowledge: we can acquire knowledge only insofar as we can produce it. The realm of possible knowledge extends as far as the realm of our *production* of knowledge.

In all three passages, Kant suggests that one condition of the possibility of knowledge is the productivity of the understanding. In the *Opus Postumum* passage, Kant implies further that this productivity occurs in an original relation to the world that precedes conceptualized experience. In this thesis I will look at Kant’s association of production and productivity with the conditions of possible knowledge, and at Kant’s locating productivity at the level of an original relation between mind and world. I will argue that an original productive relation is the ground of possible experience, and that the realm defined by this relation is the realm of what Kant understands as “ontology”. Kant does not straightforwardly adopt the rationalist ontology of Wolff, Leibniz, and Baumgarten, which in his view defines ontology as “the science of the properties of all things in general, [...] the science that deals with the general predicates of all things”.<sup>6</sup> Instead, he redefines ontology as “the science that comprises a system of all concepts and principles of the understanding, but only insofar as these extend to objects given by the senses”.<sup>7</sup> That is, ontology is concerned not just with concepts and principles, but with the *applicability* of concepts and principles to existing objects of experience. Rationalist ontology of the Wolffian school is explicitly oriented towards concepts and is concerned with the *essence* of logically possible beings, thus marginalizing the question of existence. Kant, by contrast, implies that the concern of ontology is the *relation* between the concepts of the mind and the existence of the world. The inclusion of existence in ontology, along with Kant’s assumption that we come into contact with existence through experience alone (an assumption that is made into a transcendental principle in the first *Critique*) suggests that Kant’s ontology, unlike that of Plato or Spinoza, is an ontology of

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<sup>5</sup> Kant, *Critique of Judgment*, trans. Werner S. Pluhar (Indianapolis: Hackett, 1987), §68, Ak. 384. Hereafter abbreviated to *CJ*.

<sup>6</sup> Kant, *Metaphysik Mrongovius* (1782-3), *Lectures on Metaphysics*, trans. and ed. Karl Ameriks and Steve Naragon (Cambridge: CUP, 1997), Ak. 29:784, p. 140. Hereafter abbreviated to *LM*.

<sup>7</sup> Kant, *What Real Progress has Metaphysics Made in Germany since the time of Leibniz and Wolff?*, ed. Friedrich Theodor Rink (1804), bilingual edition, trans. Ted Humphrey (New York: Abaris Books, 1983), 53 (translation slightly modified).

experience. The realm of ontology for Kant is the realm of the relation between mind and world, the realm of possible experience, and the realm of the production of experience.

Kant's new understanding of ontology as a system of concepts and principles that apply to sensible objects is accompanied by a new understanding of what *being* means. Being, for Kant, does not refer to the *essence* of the sensible objects to which concepts are applied. For Wolffian rationalism, being is equated with essence, so the essence of a thing — its substance, monad, or inner nature — is equivalent to what it is to *be* that thing. This understanding of being is routinely and unquestioningly attributed to Kant by commentators, such that Kant's thing in itself, which is often assumed to be equivalent to a monad, is also taken to be the *being* of a thing. This line of interpretation seriously misunderstands Kant's conception of being. For we cannot know anything about the being of things in themselves, so when we ask about the being of things, we must be referring to appearances. But to say that the being of an appearance — *what it is to be* an appearance — is to be a thing in itself, goes against Kant's entire doctrine of experience. Kant's numerous arguments against the possibility of our having experience of simple substances and inner natures of things show that what it is to *be* an object of experience is precisely *not* to be a simple substance; rather, *what it is to be* an object of experience is to consist entirely of relations.<sup>8</sup> The character of an object of experience consists in its relations to other objects of experience, and its *being* consists in its relation to the experiencing subject. This is confirmed by Kant's very clear and well-known statement that being is "merely the positing of a thing".<sup>9</sup> What it is to be a thing is to be posited, and thus to be in relation to a subject. Against interpretations of Kant which either ignore or misconstrue his conception of being, therefore, I will argue that being, for Kant, is the original relation between subject and object, and thus that Kant's ontology is indeed concerned with the meaning of being. The realm of ontology — the realm of possible experience, of the subject-relatedness of objects and the object-relatedness of subjects — is also the realm of being. As this is also the realm of

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<sup>8</sup> CPR A265 / B321.

<sup>9</sup> CPR A598 / B626.

the *production* of experience, I will show that being is the *productive* relation between subject and object, and that Kant's ontology is a productive ontology.

By "productive ontology" I mean a theory of being that includes a notion of production, and I will claim that this is what Kant propounds. In saying this, I do not mean to imply that Kant is the first or only philosopher to take this view. Spinoza quite clearly has a productive ontology, as does Schelling; Leibniz and Locke, in different ways, could be said to consider the being of things in terms of production. But whereas the notion of production has long been recognized to be an integral part of the metaphysics of Spinoza and Schelling, and while the metaphysics of Leibniz and Locke have long been considered to be inseparable from a physics of dynamical productivity, no study of Kant has (to my knowledge) recognized that a notion of production is integral to his critiques of theoretical reason, practical reason, and judgment, as well as to his theory of matter. While a number of studies have recently emerged on Kant's dynamical theory of matter, none have noted that the notion of production involved with this theory is also present in Kant's theory of knowledge.<sup>10</sup> In arguing for Kant's productive ontology, my aim is to show that conceptions of production and productivity are deeply ingrained in Kant's theories of knowledge, nature, and life, and that Kant's understanding of being is based on these conceptions.

This orientation towards Kant's texts has developed, in part, from a reading of Heidegger's interpretations of Kant. Heidegger gives extensive treatments of Kant in at least five book-length texts, and gives shorter treatments in a number of other texts and essays.<sup>11</sup> In his best-known work on Kant, *Kant and the Problem of*

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<sup>10</sup> Recent studies on Kant's theory of matter and his relation to the sciences include Gerd Buchdahl, *Kant and the Dynamics of Reason* (Oxford: Blackwell, 1992), hereafter *KDR*; Michael Friedman, *Kant and the Exact Sciences* (Cambridge, MA: Harvard UP, 1992); Eric Watkins (ed.), *Kant and the Sciences* (Oxford: OUP, 2001); Susan Meld Shell, *The Embodiment of Reason* (Chicago: U of Chicago P, 1996); Jeffrey Edwards, *Substance, Force, and the Possibility of Knowledge* (Berkeley: U of California P, 2000); and Eckart Förster, *Kant's Final Synthesis* (Cambridge, MA: Harvard UP, 2000). An excellent older study of seventeenth- and eighteenth-century philosophy in relation to the sciences is Buchdahl, *Metaphysics and the Philosophy of Science* (Oxford: Blackwell, 1969).

<sup>11</sup> Heidegger's book-length texts on Kant include *Kant and the Problem of Metaphysics*, trans. Richard Taft (Bloomington: Indiana UP, 1990), hereafter *KPM*; *The Basic Problems of Phenomenology*, trans. Albert Hofstadter (Bloomington: Indiana UP, 1982), hereafter *BPP*; *Phenomenological Interpretation of Kant's Critique of Pure Reason*, trans. Parvis Emad and Kenneth Maly (Bloomington: Indiana UP, 1997); *What is a Thing?*, trans. W.B. Barton Jr. and Vera Deutsch (South Bend: Gateway, 1967), hereafter *WT*; and *The Essence of Human Freedom*, trans. Ted Sadler (London: Continuum, 2002). A number of short works engage with Kant,

*Metaphysics*, Heidegger proposes a “retrieve” of Kant by interpreting the first *Critique* as laying the ground for metaphysics and “unveiling the inner possibility of ontology”.<sup>12</sup> According to Heidegger, Kant achieves this ground-laying by implying that an *ontological* understanding of *being* precedes and makes possible the “ontic” knowledge of *beings* (i.e. our everyday experience of things). In aligning this ontological understanding with the transcendental knowledge that characterizes human finitude, Heidegger is able to find in Kant a fundamental ontology, an analysis of the finite essence of human beings in terms of their being.<sup>13</sup>

While I believe the secondary literature on Heidegger’s Kant interpretations to be insufficient, it is not my intention to redress that balance here.<sup>14</sup> Nor do I intend to evaluate the successes and failures of Heidegger’s general interpretive strategy in *Kant and the Problem of Metaphysics*. Rather, as I explain further in chapter one, I take two of Heidegger’s claims as starting points for investigation, both from *The Basic Problems of Phenomenology*. In this text Heidegger specifically discusses Kant’s ontology in terms of production. First, Heidegger claims that the Kantian subject has a “productive comportment” towards things, understanding their being as produced permanent presence. Heidegger maintains that Kant understands being in this way, and that he does not move beyond an “ontology of the extant”.<sup>15</sup> According to Heidegger, *being* for Kant means the producedness of a thing, specifically its creation by God, as permanent, static presence. Secondly, as he also argues in *Kant and the Problem of Metaphysics*, Heidegger claims that the Kantian subject must establish an original, pre-conceptual comprehension of the being of things before the things themselves are understood. This is an original relation between subject and object, in which the being of things is established and

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foremost of which is “Kant’s Thesis About Being”, trans. Ted E. Klein Jr. and William E. Pohl, in *Pathmarks*, ed. William McNeill (Cambridge: CUP, 1998).

<sup>12</sup> *KPM* 8.

<sup>13</sup> *KPM* 1.

<sup>14</sup> Book-length treatments of Heidegger on Kant have tended to focus on *KPM* and tend to devote more space to interpreting Heidegger than to interpreting Kant. These include Charles M. Sherover, *Heidegger, Kant and Time* (Bloomington: Indiana UP, 1971); Henri Declève, *Heidegger et Kant* (The Hague: Martinus Nijhoff, 1970); Frank Schalow, *The Renewal of the Heidegger-Kant Dialogue* (Albany: SUNY Press, 1992), and recently Martin Weatherston, *Heidegger’s Interpretation of Kant* (Basingstoke: Palgrave Macmillan, 2002).

<sup>15</sup> *BPP* 106 ff; 149 ff.

comprehended: *being* is disclosed before *beings* are uncovered.<sup>16</sup> In aligning being with producedness, Heidegger claims that this original relation establishes things *as produced*.

While I have started my investigation from Heidegger's general position and adopted some of his claims, I find that Heidegger gives a limited interpretation of the relation of being and production for Kant, and does not take into account the ways in which Kant himself makes production and productivity themes for discussion, particularly in the *Critique of Judgment* and *Opus Postumum*. Where I agree with Heidegger is in his claim that a pre-conceptual relation between subject and object is the original basis for experience. I agree, further, that being is established with this relation, and that this relation has something to do with production. However, I disagree with the claim that in this relation, the being of things is *disclosed* as their *producedness*. With this, Heidegger reduces Kant's notion of being to a notion of material presence created by God. By contrast, I argue that Kant's notion of being is not a notion of material presence, but is the original subject-object relation itself. Being is not sheer materiality, but is the relation between materiality and formality. This original relation, on my account, does not establish the *producedness* of things, but is itself *productive of things as objects of experience*. That is, the original relation of being produces formalized, objective things that can appear to a subject. My claim, then, *contra* Heidegger, is that being for Kant is neither producedness nor presence, but a relation of *productivity* that makes possible the presence of objects to a subject.

The two sides of this relation of being are the subjective, formal side and the objective, material side. The relation of being can thus also be described as the original relation of form and matter: only within this relation can objects be present to a subject, and can a subject know an object. In order for this relation to come about, and in order for objects of experience to be possible, the subject, as spontaneous, must indeed comport itself towards things, and comport itself with a view to production. I agree with Heidegger that the Kantian subject has a "productive comportment" towards things. But whereas Heidegger claims that the subject, for Kant, is predisposed to comprehend things as *produced* (by God), my

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<sup>16</sup> *BPP* 70 ff.

claim is that the subject is predisposed to comprehend things, first, with a view to their *production* as objects of experience, and second, as *productive*. In the initial subject-object relation, productive spontaneity relates itself to the world with a view to producing objects of experience through formal determinations. Those objects of experience are then judged part of a nature governed by causality, and interpreted, by analogy with the subject's own productivity, as *productive* of other objects. The inherent productivity of human understanding, and the subsequent comportment of understanding towards the world in terms of production, is something that Kant makes explicit, largely in the third *Critique*. Heidegger does not recognize that Kant makes "productive comportment" thematic, nor that Kant acknowledges the limitations it places on human understanding. It is the productivity of human understanding, Kant says, that compels us to interpret nature in terms of production. Human productivity, and its role in the original relation of being, mean that nature is determined to be productive.

One consequence of productive ontology is that neither the thing nor the subject, neither existence nor epistemic conditions, can be understood in terms of inert, isolated substance, but must be understood in terms of dynamic, productive, interactive relations. My argument therefore also stands against interpretations of Kant which state that perception is caused by things in themselves, or which state that permanent substances constitute the material basis of appearances. (I will refer to and argue against such positions from time to time.) On my interpretation, appearances and experience are made possible by the relation between subject and object, and this relation is the relation of being. Things in themselves, noumena, and supersensible objects are excluded from this relation, although they might be thought to underlie it. The empirical relations through which we have experience and knowledge are preceded and made possible by the original, productive, transcendental, ontological relation of being: Beck's "original representing".

In sum, the general aims of this thesis are as follows:

1. To argue that *ontology* for Kant concerns the realm of relation between epistemic conditions and existence, and to argue that *being* for Kant is the original relation between subject and object;
2. To argue that ontology and being are understood in terms of production and productivity: ontology concerns the realm of the *production* of experience,

and being is the *productive* relation between a productive spontaneity and a nature that is interpreted to be productive;

3. To argue that Heidegger is wrong to ascribe to Kant an understanding of being as “produced permanent presence” based on the subject’s comportment to a divinely created world, and to claim instead that Kant understands being as a *productive relation*, in which the subject comports itself to things with a view to their *production* as objects of experience.

This amounts to an argument for Kant’s *productive ontology*, in response to the silence of other commentators on Kant’s ontology and on Kant’s notion of production, and in response to Heidegger’s reductive reading of Kant’s understanding of being. As the title suggests, I will examine productive ontology insofar as it forms the basis for Kant’s philosophy of knowledge, his philosophy of nature, and his theory of the meaning of being.

## 2. Production and causality

In arguing that Kant’s ontology is a productive ontology, I will claim that Kant understands both the subject and nature as productive. Kant describes the subject as productive in at least three ways that correspond to his three critiques: epistemically, morally, and technically. I will be concerned primarily with the first type of productivity, in which the understanding in its spontaneity produces objects of experience and knowledge through the formal determination of representations. Technical productivity, which I will not discuss here, is the activity of the subject in creating artifacts and artworks (the latter through genius). Both epistemic and technical productivity are accompanied by moral productivity, which Kant describes as the power to originate actions according to a concept or principle. Moral productivity is associated with freedom and, as I will discuss in chapters four and five, with the concept of *life*, which is defined broadly as the power of self-activity. It is because the human subject is essentially constituted in terms of freedom and life that she is able to produce moral actions, produce knowledge, and produce artworks. It is also due to this constitution that the human subject interprets *nature* as productive.

While Kant does state quite clearly that the subject is productive, it is more problematic to describe nature as productive. It is, of course, only nature *insofar as it is experienced* that can be said to be productive: it is characterized as productive based on its formal determination through the employment of the understanding's transcendental principles in experience. Nature in itself, prior to or independent of experience, cannot be said to be productive, for it cannot even be said to be causal, and productivity is clearly thought to be a type of causality. But herein lies the problem: production for Kant is associated with the human subject, who exercises *free* causality and is able to generate *novelty*. Kant attributes to nature only mechanical or efficient causality, famously denying that nature could spontaneously produce an entirely new object or chain of events. How, then, are we to understand a notion of natural production in Kant's texts? It is worth briefly setting this out.

Kant's early career was marked by two beliefs that set him against the philosophical heritage of Leibniz and Christian Wolff: the belief that *existence* is necessary to explain the possibility of anything, and the belief that physical influx is the best explanation for the possibility of the world. Physical influx, or the ascription of real interaction and causality to substances, was growing in popularity as a cosmological explanation in the mid-eighteenth century, over against occasionalism (the ascription of all causality to God alone) and pre-established harmony (the ascription of causality only to the inner nature of substances, preconfigured by God to result in cosmic harmony).<sup>17</sup> Belief in physical influx suggests a commitment to a theory of matter as either atoms or forces exercising reciprocal causality. In Kant's case, it involved the belief that matter is a dynamical continuum, a position he continued to hold, in various forms, throughout his life. As Martin Carrier summarizes:

Kant's theory of matter comprises a threefold commitment to a dynamist, a plenist, and a continualist thesis. The dynamist thesis says that extension and impenetrability are not primary properties

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<sup>17</sup> John H. Zammito, *Kant, Herder and the Birth of Anthropology* (Chicago: U of Chicago P, 2002), 44-5. See also Alison Laywine, *Kant's Early Metaphysics and the Origins of the Critical Philosophy* (Atascadero, CA: Ridgeview, 1993), 25-31.



of matter but derive from more fundamental forces. According to the plenist view, matter fills its space completely and without empty interstices. Finally, on the continualist position matter is infinitely divisible; there are no atoms.<sup>18</sup>

Kant developed these themes from his early texts, *Thoughts on the True Estimation of the Living Forces* and the *Physical Monadology*, in which they are presented as physical theses, through to the first *Critique* and the *Metaphysical Foundations of Natural Science*, in which they are treated as transcendental principles for the possibility of experience. In the *Opus Postumum*, as I will explain in chapter five, Kant comes to understand the dynamical continuum as a transcendental material condition of possible experience, thus merging his two earlier positions. Kant's commitment to a dynamical continuum and to physical influx is accompanied by a commitment to *existence* as a necessary condition for the possibility of the world as we experience it. Indeed, Kant holds to a claim that some material must exist, and this material must either be or be experienced as a continuum of interacting forces exercising reciprocal causality.

Kant's association of existence with dynamical interaction seems to suggest his association of nature with productivity. If existing things are reducible to fundamental forces whose interactions cause the formation of new bodies, surely nature is understood as a productive continuum of force. Yet Kant's theory of matter does not state that substances *produce* other substances; it says only that there is reciprocal intersubstantial causality. Furthermore, in the third antinomy of the first *Critique*, productivity is *contrasted* with the causality of nature, for productivity is attributed only to freedom. Insofar as the subject's will has an empirical character, Kant says, its actions can be fully explained through the efficient causality of dynamical interaction. Only when we consider the subject's actions in their relation to practical reason do we consider these actions to have been *produced*, for reason alone is a *productive* cause.<sup>19</sup> Practical reason "is not dynamically determined in the chain of natural causes" but acts freely, and can be

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<sup>18</sup> Martin Carrier, "Kant's Theory of Matter and his Views on Chemistry", in Watkins (ed.), 205-30, here at p. 206.

described as “the power of originating a series of events”.<sup>20</sup> To produce is to originate, to bring about some new existence or event absolutely. The subject has this power through the freedom of practical reason, and while a similar power might be thought to underlie the series of efficient natural causes as its ultimate cause, it cannot be attributed to nature itself.

The association of production with the power to originate according to a principle, or more broadly, the power to act according to representations, is repeated in Kant’s *Lectures on Metaphysics* and the *Critique of Practical Reason*.<sup>21</sup> The verb that Kant uses in these contexts is *erzeugen* (translated as “produce” or “generate”), which is also used to describe the subject’s epistemic productions (the generation of principles, for example; Kant sometimes also uses *hervorbringen*, translated as “yield” or “give rise to”, for epistemic production). In both moral and epistemic production, the subject originates something that requires spontaneous action and that would not have arisen through natural causality alone. Nature, lacking spontaneity, cannot be productive in this sense but can only be causal. Curiously though, Kant uses *erzeugen* in the title of the A edition second analogy: the well-known principle of the rule-governed succession of appearances is described as the “Principle of Production”.<sup>22</sup> Although Kant changed that title in the B edition, the original title suggests that Kant believed natural causality *could* be thought in terms of production. Or rather, it suggests that Kant thought that we *experience* the production of natural things, and that the *a priori* principle of causality makes this experience possible. This suggests a use of the term “production” that does not refer to freedom, but that is associated with mechanical causality.

I want to suggest that the term “production” *can* be applied to natural causality without illegitimately ascribing freedom to nature. First, we can consider nature productive by analogy with our own free productivity, as Kant describes in the *Critique of Judgment*. In the *Critique of Judgment*, organized natural beings — those beings that appear to produce and be produced through concepts — are

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<sup>19</sup> *CPR* A549-50 / B577-8. See also A92 / B125, where Kant similarly implies that to produce the existence of an object would require causality of the will.

<sup>20</sup> *CPR* A553-4 / B581-2.

<sup>21</sup> *LM* Ak. 29:1023, p. 491; see the Preface to the *Critique of Practical Reason*, trans. and ed. Mary Gregor (Cambridge: CUP, 1997), Ak. 9n.

experienced in terms of *Erzeugung*.<sup>23</sup> As I will explain in chapter four, the productivity of organized beings cannot be explained by efficient causality alone, and must be thought by analogy with human concept-driven causality. Kant's position on natural production in the *Critique of Judgment* is this: we do experience nature to bring about new objects and events, and to originate forms seemingly according to concepts, which means that we experience nature as productive. However, it is invalid to ascribe an understanding to nature itself, so we may think that aspect of its productivity that exceeds mechanical causality by analogy with our own productivity. Even though we must attempt to explain natural phenomena as far as possible through mechanical, efficient causality, we can and do experience nature as productive, precisely because productivity is part of the essence of the human subject. In being constituted by the capacity to exercise free causality, the human subject *inevitably* interprets nature as exercising free causality — albeit with the awareness that such an interpretation is only provisional.

Second, we can consider nature productive insofar as its causality appears to generate new forms. Kant claims that it is only in the case of organized natural beings (those that seem to produce according to concepts) that we are compelled to use the analogy with our own free causality. Otherwise, nature can be understood in terms of mechanical causality alone. But even natural beings that are fully explicable by mechanical causality seem to us productive: dynamical and chemical interactions generate bodies and events that appear new to us. These bodies and events are not new *absolutely*, for according to the solution to the third antinomy, only freedom can produce absolute novelty. But nature generates bodies and events that are new *relatively* to other appearances. This kind of productivity is hardly distinguishable from efficient causality or alteration. But I would like to suggest that we may call it productivity nonetheless. Kant's discussion of the forces that appear to originate new bodies in the *Metaphysical Foundations of Natural Science*, for instance, suggests that nature can be thought as productive in its mechanical causality. In this case nature is not thought to be *freely* productive

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<sup>22</sup> CPR A189.

<sup>23</sup> See, for instance, CJ §64, Ak. 370-2, where Kant describes the three ways a tree is thought to be productive.

by analogy with human understanding; it is thought to be *causally* productive, with mechanical causality explaining the generation of new bodies. As I will explain in chapters four and five, even this interpretation of causality as production is due to our productive understanding. In thus interpreting nature as productive, we do not attribute freedom to nature — we simply interpret certain kinds of causality as relatively original. There is, then, a type of productivity that can be attributed to nature without illegitimately ascribing freedom to nature, and without introducing an explicit analogy to human productivity: natural productivity is natural causality, insofar as it originates what appear to us as new things and events.

I think, therefore, that it is legitimate to call certain kinds of natural causality *natural productivity*. For Kant's argument against ascribing productivity to nature is really an argument against ascribing freedom or spontaneity to nature. As long as we do not fall into this trap — as long as we maintain that nature is governed by mechanical causality and that it can bring about its effects through mechanical causality alone — we are free to say that nature is productive in its ongoing generation of relatively new forms, bodies and events. Not all causality is interpreted as production, of course: it would require a stretch of imagination to construe Kant's famous example of rule-governed succession, a boat moving upstream, as natural productivity. But insofar as natural objects grow, generate, and form bodies through chemical or physical interaction, nature is interpreted to be productive. So insofar as Kant holds to a theory of physical influx or of a dynamical continuum, he maintains that nature "produces" bodies and is "productive" in its ongoing interaction. Throughout the thesis, therefore, I will use the term "natural productivity" to denote this type of natural causality.

There are three further disclaimers I wish to make. Because I am concerned with Kant's ontology, I have restricted my study of Kant's notion of production to what I have called epistemic production: the production of experience and knowledge. Because natural production also plays a part in ontology, and because nature is interpreted as productive based on *moral* production, I have discussed moral production where necessary, usually in terms of Kant's conception of life. However I have not in general been concerned with Kant's practical philosophy, nor with concepts of freedom, autonomy, and moral action. Although I would

claim for Kant that the productivity of the subject is ultimately grounded in the subject's freedom, I have not been able to undertake a detailed analysis of freedom or moral productivity; to do so would undoubtedly be worthwhile, but would require a much longer work.

Similarly, I have been unable to discuss technical production in this thesis — the production of artworks through genius, as Kant describes in the *Critique of Judgment*. Production through genius is a very interesting topic, as genius is defined as nature working through the subject. Kant seems to suggest a productivity of nature that can only manifest itself through the subject's spirit, life, or “mental predisposition”; artworks come about through the relation of nature to the subject's self-activity or productive capacity.<sup>24</sup> While this is a fascinating development of Kant's theory of production, it is not directly related to his ontology, and so I have not been able to discuss it here. I have restricted this study to an examination of Kant's productive ontology, and thus of the productive elements that make up the relation of being: productive spontaneity, and nature that is interpreted productively.

Given this proviso, it may seem surprising to some readers, particularly those familiar with Heidegger, that I almost entirely ignore the topic on which Kant has most to say concerning production: the productive imagination. Kant uses the adjective *produktiv* and the noun *Produkt* in the A Deduction of the first *Critique* to distinguish the productive from the reproductive imagination. In its productive function, the imagination synthesizes *a priori* the manifold of appearance prior to apperception, producing the manifold as a unity of associable things.<sup>25</sup> The imagination is “productive” in that it produces synthetic unity, and thereby produces the affinity (objective association) of appearances and the reproducibility of appearances according to laws; indeed, Kant suggests that imagination is responsible for producing experience itself.<sup>26</sup> The productive imagination is almost entirely written out of the B Deduction. It reappears in the Schematism (as

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<sup>24</sup> *CJ* §46, Ak. 307-8.

<sup>25</sup> *CPR* A118-24.

<sup>26</sup> *CPR* A123.

producer of the schema of a concept) but is otherwise assigned the lesser role of being the power to exhibit an object prior to experience.<sup>27</sup>

Heidegger makes much of the role of productive imagination in the A Deduction, claiming that since it unifies what is given *a priori*, it unifies the pure *a priori* intuition of time, and thus mediates between time and transcendental apperception.<sup>28</sup> Briefly, the productive imagination, for Heidegger, produces a temporal “horizon” within which the being of things is understood. Productive imagination, for Heidegger, makes possible the understanding of being as permanent presence. As I disagree with Heidegger’s claim that being for Kant is interpreted as “produced permanent presence”, so I also disagree that the productive imagination enables such an interpretation of being. But I disagree more generally with Heidegger’s claim that the productive imagination should be singled out for analysis outside of the productivity of spontaneity as a whole. Kant describes the entire process of experience-formation as a productive one, and the imagination enacts only one part of that process (and is only said to do so in the first, subsequently rewritten Deduction). Experience is the product of a number of productive transcendental activities, which synthesize and unify spontaneously. I have found it more useful to examine the epistemic productive process as a whole, and to focus on transcendental apperception as the central component of this process. Thus while I devote much of chapter three to discussing the productivity of spontaneity, I do not especially discuss the productive imagination.

### 3. Structure of the chapters

The five chapters of the thesis proceed chronologically through selected works of Kant’s, starting with *The One Possible Basis for a Demonstration of the Existence of God* of 1763, proceeding to the *Critique of Pure Reason*, the *Metaphysical Foundations of Natural Science*, and the *Critique of Judgment*, and finishing with the *Opus Postumum*, written over the last ten years of Kant’s life. Chapters one, two, and three, which address the *Critique of Pure Reason*, do not,

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<sup>27</sup> CPR A140-2 / B179-81; B151-2; CJ Ak. 240.

<sup>28</sup> KPM 52-7, 87-138.

however, move chronologically through the text. In fact, they proceed in reverse order, starting in chapter one with the thesis about being from the Transcendental Dialectic, addressing the Analytic of Principles in chapter two, and examining the Transcendental Deductions in chapter three.

In the first chapter I determine the location and bounds of Kant's ontology and notion of being, and introduce the two claims of Heidegger's to which I will respond throughout the thesis. I argue that Kant progresses beyond Christian Wolff's ontology of the concept by stressing the importance of existence, and find that Kant's ontology is both epistemological and existential. Using Heidegger's notion of productive comportment, I also argue that existence for Kant is tied to a notion of production: to the idea of divine creation in *The One Possible Basis for a Demonstration of the Existence of God*, and to the concept of natural production in the first *Critique*. Through an examination of Kant's claim that being is positing, I introduce Kant's understanding of being as a relation between subject and object, between epistemic conditions and existence.

In chapter two I focus on the existential side of the relation of being, stressing that existence for Kant cannot be approached outside of the epistemic framework of concepts and principles. I also take up Heidegger's claim in *What is a Thing?* that Kant's philosophy of nature is "mathematical" and suggest that this is a reductive interpretation. I examine some of the principles of the Analytic in detail, including the Anticipations of Perception and the first analogy, to show how the object of experience is transcendently determined in such a way that its existence as dynamical productivity becomes manifest. I investigate natural production further, showing how the "nature in general" of the first *Critique* is specified as matter, and ultimately as force, in the *Metaphysical Foundations of Natural Science*. I also stress that material existence is necessary to the epistemic framework of concepts and principles, in order to show that the *relation* between existence and epistemic conditions is crucial to both.

This relation, the relation of being, is the topic of chapter three. In the Transcendental Deductions, with the synthetic unity of apperception, we see how the subject-object relation of being comes about, and in what sense it is an epistemically productive relation. I will argue that being is the relation between a spontaneous subject and the world it has received through the senses, the relation

that produces objectivity and subjectivity, and gives a thing its being — its relatedness to a subject, as an object. The examination of this relation, however, draws attention to the more original relation of affection, and raises the question of the ontological status of the affective relation that underlies the relation of being. There are, then, two questions that drive this chapter: what does the relation of being consist in? And what ontological status does the ground of appearance and affection have? I will argue that the answers to these questions lie in the concept of the transcendental object, and in its adaptation into reason's idea of a supersensible object. In addition to the Deductions, I will discuss the Phenomena and Noumena chapter, the Amphiboly of Concepts of Reflection, and selected passages from the Dialectic. I will argue against Heidegger, whose position implies that for Kant the being of things is their materiality; on my account, the being of things will be shown to be their *formality*.

In chapter four I turn to the *Critique of Judgment*, to show how ontology and productivity are made thematic there. In the Critique of Aesthetic Judgment, through drawing attention to the judgment of the *formality* of things in the judgment of taste, Kant makes the relation of being a topic for reflection. Aesthetic judgment, I argue, is concerned with the conditions for cognition in general, and is thus concerned with the being of the object: its subject-relationality in general. Kant suggests that the subject's feeling of life is fired up by aesthetic judgment, and defines life as the self-active spontaneity or productivity of the subject. Not only is "life" part of the judgment in which the being of things is established; its concept is also used as a template through which we interpret natural beings whose organization and productivity are otherwise incomprehensible. I will argue that in the Critique of Teleological Judgment, Kant claims that we unavoidably take a productive comportment towards nature, based on our own productive spontaneity. I contrast my claim that Kant recognizes this comportment with Heidegger's claim that he does not.

Finally, in chapter five, I look at Kant's *Opus Postumum* to determine his final productive ontology. I address two problems of production that emerge in the previous chapters' analyses: the problem of the material production of diverse individual bodies, and the problem of the original production thought to underlie spontaneity and nature and to make their relation possible. I claim that with the



concept of ether, Kant attempts to solve both these problems, and that in his formulation of proofs for the existence of ether, Kant's transcendental idealism and theory of being are modified. In his final years, Kant proposes that we accept the existence of a dynamical continuum prior to experience. The original affective relation between this dynamical continuum and the self-activity or "life" of the subject — a relation that is both material and formal — is ultimately how Kant understands being.

The thesis ends with a conclusion in which I reiterate that Kant's ontology should be understood as a productive ontology. I also summarize the findings of the chapters and propose some areas for further research.

## Chapter 1

### Kant's ontology: knowledge, existence, and production

But since one used to treat ontology without a critique — what was ontology then? An ontology that was not a transcendental philosophy. Thus one philosophized back and forth without asking: can one do that?<sup>1</sup>

#### 1.1 The ontological background

The question of ontology is seldom addressed in current English-language interpretations of Kant's theory of knowledge and matter. When it is addressed, the question tends to be formulated in terms of the dispute over really existing entities or the problem of affection; the question of Kant's ontology becomes a question concerning the reality and efficacy of things in themselves.<sup>2</sup> Proponents of this approach understand "Kant's ontology" to be a compendium of the entities the existence of which Kant believed in and tried, with varying degrees of success, to prove. Such accounts have as their aim a comprehensive enumeration of the types of things or *beings* that can be thought to exist for transcendental idealism.

By contrast, Heidegger's interpretations of Kant, particularly in *The Basic Problems of Phenomenology* and *Kant and the Problem of Metaphysics*, take a "fundamental ontology" approach to the question of *being* in Kant's texts. This approach, as explicated in Heidegger's *Being and Time* and other works from that period, takes its central question not to be that of beings or individual things, but rather to be the question of *being*. Fundamental ontology is not concerned with the

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<sup>1</sup> *Metaphysik Mrongovius*, LM Ak. 29:785, p. 140.

<sup>2</sup> See, for example, Kenneth F. Rogerson, "Kantian Ontology", *Kant-Studien* 84:1 (1993), 3-24; Garrett Thomson, "The weak, the strong, and the mild: Readings of Kant's ontology", *Ratio* 5:2 (1992), 160-76. A notable if rather incoherent exception is G.A. Schrader, "Ontology and the Categories of Existence", *Kant-Studien* 54 (1963), 47-62.

essence or properties that make a particular being what it is; nor is it concerned with the “thatness” or presence of beings. Rather, it is concerned with the meaning of being that is already in some sense understood in metaphysical claims about the essence or presence of beings. The major problematic for fundamental ontology is to determine, or at least inquire into, the meaning of being, and the problematic for a fundamental ontological approach to a historical text is to inquire into the meaning of being presupposed by that text. For Heidegger, Kant’s understanding of being determines his understanding of those beings that can be thought to exist and be known. An ontological inquiry into Kant, then, must go beyond a discussion of existing beings, and must ask after the meaning of being that Kant’s system presupposes.

Given that Kant famously defines being as positing, and given that he calls ontology “a system of concepts and principles which [...] take no account of objects that may be given”, is Kant’s an ontology of *being*, of *beings*, or neither?<sup>3</sup> Is ontology for Kant strictly epistemological, or does it have an existential element? In this first chapter I aim to determine the location and bounds of Kant’s ontology, starting from the question of what Kant himself thought ontology to be. I will employ a distinction between epistemological and existential ontology, to determine whether Kant’s ontology is oriented towards knowledge or existence. Epistemological ontology is a theory of being based on concepts and principles and has as its aim certainty about the grounds of knowledge, while existential ontology is a theory of being based on existence and has as its aim certainty about the grounds of existence. I will argue that while Kant appears to propound a strictly epistemological ontology, existence is a necessary ground and component of it, such that Kant emerges with an ontology that is both epistemological and existential. I will also argue that Kant’s ontology is a productive ontology — that is, his theory of being involves a notion of production. This chapter, then, will outline the interrelation of knowledge, existence, and production as they relate to Kant’s theory of being.

Kant’s understanding of the word ontology [*Ontologie*] would have come largely from Christian Wolff. In addition to being the major modern philosophical

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<sup>3</sup> CPR A845 / B873.

influence in Kant's early years, Wolff was apparently responsible for popularizing "ontology" as a philosophical term.<sup>4</sup> Ontology, for Wolff, is the study of logically possible being; that is, being the predicates of which are not contradictory. The predicates of a possible being constitute the essence and definition of that being, which in turn constitute its concept.<sup>5</sup> Ontology for Wolff is the study of being insofar as it is definable and conceptualizable: conceptual definition is the condition of possible being. Creation by God is the condition of actual being, for beings obtain merely as possible until something is added to their possibility to make them existent.<sup>6</sup> Ontology, however, is not concerned with the existence of things, for existence is added to their concepts by God, and is thus the concern of rational theology. The question of the ground or first cause of existence is also a theological, rather than an ontological, question for Wolff. Ontology seeks conceptual knowledge of beings: it inquires into the essence of things, where essence is equated with the thinkable concept.

Thus Wolff's rationalist ontology is concerned with the essence and knowability of beings rather than with their existence or the ground of their existence. Essence entails conceptual definition and conceptual definition is the ground of our knowledge of essence: any object satisfying the condition of conceptual definition is a ground of knowledge, and is thereby also *an essence* or *a being*. Wolff's ontology is an epistemological study of essence, in which anything that can be logically thought as an essence is thought to be *a being*, including those concepts to whose possibility *existence* has not yet been added.<sup>7</sup> Existence is not a necessary feature of a being, but a supplementary one. In

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<sup>4</sup> Although the term had been in use since 1613, Wolff popularized it in his 1730 *Philosophia prima sive ontologia methodo scientifica pertractata*. See Jose Ferrater Mora, "On the Early History of Ontology", *Philosophy and Phenomenological Research* XXIV (1963-4), 36-47, p. 36. According to Lewis White Beck, Wolff was also responsible for dividing philosophy into the theoretical and the practical, and for formalizing the division of metaphysics into ontology (*metaphysica generalis*) and the "special metaphysics" of theology, cosmology, and psychology. Kant adopted these terms largely from Baumgarten's *Metaphysica*. For a comprehensive view of the aims of seventeenth- and eighteenth-century rationalist ontology, see Lewis White Beck, *Early German Philosophers* (Cambridge, MA: Belknap Press, 1969). On Wolff, see esp. pp. 256ff. The importance of Wolff's philosophy to Kant's philosophical development is well summarized and given a rather more positive spin in chapter 2 of J.N. Findlay, *Kant and the Transcendental Object* (Oxford: Clarendon Press, 1981), while Eric Watkins discusses Kant's retention of Baumgarten's cosmological principles in "Kant on Rational Cosmology", in Watkins (ed.), 70-89.

<sup>5</sup> L.W. Beck 263-4.

<sup>6</sup> L.W. Beck 265.

marginalizing the question of existence, Wolff propounds an essential or epistemological ontology rather than an existential one.<sup>8</sup> German rationalist ontology had been characterized by this division of questions of knowledge and existence, and indeed by the marginalization of the existential question by epistemological concerns, since the mid-seventeenth century. It was by means of this distinction, and by means of a strong distinction between possibility and actuality, that Wolff asserted his difference from the radical Spinozism of which he was accused.<sup>9</sup>

Lewis White Beck maintains, as do many Kant scholars, that Kant accepted philosophy's epistemological priority. Yet Kant was evidently dissatisfied with the Wolffian ontology; Mora describes the first *Critique* as "the work of a man who was obsessed, and deeply distressed, by ontology".<sup>10</sup> Kant felt that with the "modest" Transcendental Analytic he had surpassed and replaced "the proud name of an Ontology that presumptuously claims to supply, in systematic doctrinal form, synthetic *a priori* knowledge of things in general".<sup>11</sup> The Transcendental Analytic, Kant's system of concepts and principles, replaces rationalist ontology with a radically new epistemology. In his conception of ontology as epistemology, and his categorization of the questions of the origin of existence and the definition of being under cosmology and theology respectively, Kant maintains the Wolffian definition of ontology and division of philosophical topics.<sup>12</sup> Like Wolff, Kant understands ontology in epistemological terms, and appears strongly to distinguish this epistemological ontology from the question of the existence of things and of the origin of that existence. While the structure of Kant's first *Critique* does attest

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<sup>7</sup> L.W. Beck 396. See also p. 267, where Beck criticizes Wolff for confusing "the ground of knowing [...] with the ground of being".

<sup>8</sup> L.W. Beck (185) uses a similar distinction between essential and existential ontology, formulated by Etienne Gilson, *Being and some Philosophers* (Toronto: Pontifical Institute of Medieval Studies, 1949).

<sup>9</sup> L.W. Beck traces the existential-epistemological distinction back to the German Cartesian Johannes Clauberg. "With [Clauberg] there begins a rationalistic ontology in which the potentiality of being thought defines being. [...] A direction is established in German philosophy away from the classical ontological realism of scholasticism, and its primary concern with being, toward the priority of the epistemological problem" (185-6). Jonathan Israel suggests that this distinction helped to propel German rationalism away from the "dangerous" ideas of Spinoza, although it did not protect certain philosophers, including Wolff, from accusations of Spinozism; see chapters 26, 29, and 34 of Israel's *Radical Enlightenment* (Oxford: OUP, 2001).

<sup>10</sup> Mora 36. See Findlay, however, for the opposing view.

<sup>11</sup> *CPR* A247 / B303.

<sup>12</sup> See *CPR* A845-6 / B873-4.

to a maintained distinction between epistemological and existential questions, however, it is clear that for Kant existence is of central importance to the possibility of knowledge, and that epistemological and existential questions are interrelated.<sup>13</sup>

I will argue that the existential side of Kant's ontology is far more developed and important than most commentators have suggested. First, we will see in the 1763 essay *The One Possible Basis for a Demonstration of the Existence of God* that Kant makes existence in general a necessary condition for possibility in general, and thus makes existence an aspect of ontology. The existence of things is not a predicate to be added to a concept, but rather the positing of thing. In *The One Possible Basis*, this positing is accomplished by God, whose divine creation continues to be thought as the ground of existence. In the *Critique of Pure Reason*, however, Kant characterizes the existence of things as a modality of the thing's relation to a subject, and understands the ground of existence primarily in terms of natural production. This change in Kant's understanding of existence involves a shift from understanding things in terms of producedness, to understanding them in terms of productivity.

I will use this claim to criticize Heidegger's interpretation of Kant, which involves the assertion that Kant understands being as "produced permanent presence" that is disclosed in an original *a priori* relation between subject and object. I will argue to the contrary that being, for Kant, defined as the *positing* of a thing, is nothing other than this original relation itself. Being, on my reading, is the relation of subject and object, the relation of knowledge-conditions to the world, in which knowledge becomes possible and existence becomes manifest. Being, as this relation, is the original condition of possibility of the formal determination of the manifold, and of the manifold appearing to us in the ways that it does, including its appearance as productive. The original relation, therefore, does not disclose things *as produced*, but is rather the original productive condition of possibility of the *productivity* of things. Kant's ontology,

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<sup>13</sup> Kant's renewed interest in existence may have resulted from the growing popularity in Kant's early career of theories of physical influx, which affirmed intersubstantial causation against Leibniz's theory of preestablished harmony. Particularly influential on Kant would have been Christian Crusius, who developed an ontological foundation for physical influx by stating that real,

based on a notion of being as the relation of knowledge-conditions to existence, will thus be shown to be both epistemological and existential, located in and bounded by the realm of representation. The implications of Kant's overthrow of rationalist, concept-based ontology, and the renewed emphasis he gives to existence, go far beyond the Analytic; they pervade his philosophy of nature and his metaphysics as a whole. Furthermore, we will see that the epistemological and existential ontologies are not in any sense distinct for Kant: their boundaries are blurred, their objects overlap, and their grounds are common.

## 1.2 Existence and divine creation in *The One Possible Basis*

The central concern of Kant's 1763 essay *The One Possible Basis for a Demonstration of the Existence of God* is ontology. It is concerned both with rationalist epistemological concept-based ontology and with existential ontology. Indeed, the essay brings these two senses of ontology into collision: Kant criticizes the Cartesian and Leibnizian ontological proofs for God's existence precisely because they attempt to deduce God's actuality from a concept, and this criticism is based on an inquiry into the meaning of the terms *being* and *existence*. For Kant, a proper understanding of existence — not as a real predicate but as absolute positing — will show up the flaws in traditional ontological proofs, and make way for a new basis for a demonstration of God's existence.

In this text, Kant uses “existence” [*Dasein*] to apply to actual things, while the broader term “being” [*Sein*] is also applied to logically possible but non-actual things. With this distinction (which I will explain in more detail below) Kant retains a similarity to Wolff. Kant's major point against rationalist ontology, however, is that existence cannot be added to or deduced from a concept — that existence is not the sort of thing that can be included in a concept. Yet for Kant, this does not mean that ontology can ignore existence; rather, ontology must consider existence as something *other* than a predicate pertaining to concepts. Existence will become part of ontology while remaining distinct from essence or

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causal connection was essential to any discourse concerning a coherent world. See Zammito, *Kant, Herder, and the Birth of Anthropology*, 43-9.

conceptual determination. Kant begins with an analysis of the notion of existence, which, while “very simple and well-understood”, is nevertheless difficult to define precisely.<sup>14</sup>

Kant begins his analysis of existence with the statement: “Existence [*Dasein*] is not a predicate or determination of any thing”.<sup>15</sup> This is to say that existence is not a quality of a thing, and thus cannot be included in the concept of a thing. The concept of a thing is completely determined; whether that thing is possible or actual does not affect the predicates pertaining to it. Predicates, for Kant, are determinations of content, so all the predicates that pertain to a thing pertain to it equally in possibility as in actuality. The existence of a possible thing does not add any predicate, but rather indicates that a thing which was possible is now actual, retaining the same predicates it had as a merely possible thing. “[I]t cannot be that if they [possible things] existed they would contain one more predicate, for in the possibility of a thing according to its thorough determination, absolutely no predicate can be missing”, says Kant.<sup>16</sup> In order to demonstrate that something exists, one does not look in the concept of the thing, but rather in the origin of knowledge one has of the thing (experience or some other basis).<sup>17</sup>

Empirical knowledge of the existence of something is sufficient to establish its actuality. But the fact that there are actually existing things, Kant clearly implies, is due to God’s creation. The creator holds all possibility in his idea, and is unique in being able to make the possible actual:

The being who gave existence to the world, and to [Julius Caesar], would know all of [Caesar’s] predicates without a single exception and yet regard him as a merely possible thing which would not exist save for his decree. [...] Not a single determination would be wanting in the idea that the supreme being has of [things], and yet

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<sup>14</sup> Immanuel Kant, *Der Einzig Mögliche Beweisgrund zu einer Demonstration des Daseins Gottes / The One Possible Basis for a Demonstration of the Existence of God*, bilingual edition, trans. Gordon Treash (Lincoln: University of Nebraska Press, 1979), Ak. 70-1. Hereafter abbreviated to *OPB*.

<sup>15</sup> *OPB* Ak. 72. Kant uses the same argument in his lectures on Baumgarten’s metaphysics. See *Metaphysik Mrongovius* (1782-3), Ak. 29:821-2, *LM* pp. 175-6, and *Metaphysik L2* (1790-1), Ak. 28:554-5, *LM* pp. 319-21.

<sup>16</sup> *OPB* Ak. 72.

<sup>17</sup> *OPB* Ak. 72-3.



existence is not amongst them since he knows them as only possible things.<sup>18</sup>

This passage reinforces Kant's point that existence is not amongst the predicates that determine a thing, but also suggests that existence is equivalent to *createdness* by God. Existence results from the "moving" of something from possibility to actuality, from God's idea of it to his creation of it by decree. God does not need to *add* anything to possibility to make a thing actual; he simply posits the thing with all its predicates. Existence cannot be thought as the "complement of possibility", as Wolff conceived it, but must be thought to be the product of God's actualizing activity.<sup>19</sup> While this distinguishes Kant's view from Wolff's, it also ties the pre-critical Kant to a notion of divine creation as the necessary condition of actuality. Later in the text, Kant asserts: "That things exist [...] is attributable to the wise choice of one who wills them".<sup>20</sup> The assumption of divine creation, however, does not introduce a Cartesian circle into Kant's argument, firstly because he sets out not to prove God's existence but only to establish the grounds for such a proof, but more importantly because this assumption is not required for his argument against traditional ontological proofs. Whereas Descartes maintained that existence is included in the concept of God, the pre-critical Kant claims that God is included in (or implied by) the concept of existence. Kant does indeed assume that existence means createdness by a divine author, but that assumption is not necessary to his argument: whether God is thought to exist or not, Kant's definition of existence as a non-predicate implies that God's existence cannot be deduced from the concept of God.

The assumption of divine creation, however, gives a double meaning to Kant's second statement, that "existence is the absolute position of the thing".<sup>21</sup> Absolute position might mean human logical positing, or it might mean God's absolute creation, "pronouncing his omnipotent *fiat* over a possible world".<sup>22</sup> Both senses

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<sup>18</sup> *OPB* Ak. 72.

<sup>19</sup> On Wolff, see L.W. Beck 265-6. For Kant's explicit critique of Wolff's definition of existence as the "complement of possibility", see *OPB* Ak. 76, *Metaphysik L2*, *LM* Ak. 28:554, p. 320, and *CPR* A230-1/ B283-4.

<sup>20</sup> *OPB* Ak. 103.

<sup>21</sup> *OPB* Ak. 73.

<sup>22</sup> *OPB* Ak. 74.

are implied, for Kant suggests that it is God's "positing" things into existence that allows humans to posit them as existing. Positing, Kant says, is identical with the concept of being [*Sein*] in general.<sup>23</sup> Something can be posited in relation to a predicate (a narwhal is brown, e.g.), in which case being is the copula of judgment. But in addition, "should not only this relation but the thing in and for itself be viewed as posited, then this being is the same as existence".<sup>24</sup> Existence [*Dasein*] is thus understood to be a specific instance of being [*Sein*]; while the former indicates absolute positing, the latter can also mean predicative positing in general. This is why the word *is* can be used to indicate relations that non-entities or possible things have to one another.<sup>25</sup> In pronouncing his *fiat*, God establishes absolutely the existence of things which were previously only possible relations, but does not thereby add any new determinations to his idea of the things. It is inaccurate, therefore, to say "A narwhal is an existent thing", for this suggests that existence is a predicate included in the concept of a narwhal. We ought to say "the predicates that I think together as a narwhal belong to certain existent sea creatures"; in other words, we ought to think of the concept of a narwhal, with all its predicates, as absolutely posited.<sup>26</sup> The narwhal is actual by virtue of God's absolute positing, and thus positable as actual on the human scale, by human observers.

God, like the narwhal, cannot be predicated into existence; because existence is not a predicate, God cannot be said to exist simply by virtue of the concept of God including every positive predicate. God's existence cannot be proved, Kant says, on the basis of mere concepts. In Kant's basis for a demonstration, God's existence *can* be posited by virtue of the necessity that there be *some existence*: God's necessary existence is the necessity that there be *some existence*. Kant makes this claim by showing that possibility, and therefore conceivability, requires that there be *some existence*. Everything that *is* possible is also conceivable, for that which is internally possible must be logically coherent according to the principle of contradiction, and what is logically coherent is also conceivable. What allows for this internal possibility is the actuality of *something or other*. The

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<sup>23</sup> *OPB Ak.* 73.

<sup>24</sup> *OPB Ak.* 73.

<sup>25</sup> *OPB Ak.* 74.

possibility of things in general is abolished “when no matter or no datum for thought exists, [for then] nothing conceivable is given”.<sup>27</sup> If there were no existence — if nothing could be absolutely posited — then nothing could be conceived and nothing would be possible. There is no contradiction in the denial of all existence,

But that there be some possibility and yet absolutely nothing actual contradicts itself. For if nothing exists, nothing conceivable is given and one would contradict himself in nevertheless pretending something to be possible. [...] To say “nothing exists” means the same thing as “there is absolutely nothing.” It is obviously self-contradictory to add, despite this, that something is possible.<sup>28</sup>

Possibility in general, then, requires that there is *not nothing*: it requires the existence of *something*. The condition for possibility in general is an actual something, “in which and through which everything conceivable is given; [...] a certain actuality whose annulment itself would totally annul all internal possibility”.<sup>29</sup> Given that there is possibility, such a thing exists necessarily. “From this much it is obvious that the existence of one or more things lies at the base of possibility itself, and that this existence is in itself necessary”.<sup>30</sup> Through analysis of the concept of that necessary existence grounding all possibility, Kant shows that this being must be unitary, simple, immutable, and eternal, containing the highest understanding and will. The *existence* of God is thus shown to be the condition of all possibility.

God’s existence is shown to be demonstrable not on the basis of the concept of God, but on the basis that all possibility requires some existence. “Some existence” must then be necessary, and this necessary existence can only be God’s. God is thus the supreme condition of all possibility and contingent existence, for the existence of individual things results from God’s absolute positing. There are,

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<sup>26</sup> *OPB* Ak. 73-4.

<sup>27</sup> *OPB* Ak. 78.

<sup>28</sup> *OPB* Ak. 78.

<sup>29</sup> *OPB* Ak. 83.

<sup>30</sup> *OPB* Ak. 83.

then, two senses of existence: (1) the existence of things, as the products of God's absolute positing, and (2) the necessary existence of God, which is the necessary condition of all possibility and thus also of absolute positing. God's existence cannot be the product of absolute positing (for then God's possibility would have to precede his existence, which goes against Kant's argument); nor can God's existence be a predicate of the concept of God. God's necessary existence is the necessity of existence as such; it is the original condition of all possibility and of the existence of things. Thus the existence of things is made possible not only by their prior possibility in the mind of God, but by the necessity of existence as such. In making *existence* a necessary condition of all possible and actual beings, Kant brings existence into ontology. Ontology is no longer concerned only with logically possible being, but is concerned with the existence that logically possible being presupposes. Epistemological ontology, concerned with the conditions of knowledge, now includes existence as its ground.

Furthermore, the existential ground of epistemological ontology is productive. God, the necessary existence, creates beings. Natural production occurs only through God's initial creation:

Everyone knows that regardless of all grounds for the generation of plants and trees, the regular organization of floral pieces, avenues, and the like are possible only through an understanding which plans and a will which executes them. All the might or power of generation as well as all other data for possibility are insufficient without an understanding to make complete the possibility of such order.<sup>31</sup>

God is not only the ontological ground of possibility and actuality; he is the creator who originates the very possibility of matter and the craftsman who puts matter into its natural order.<sup>32</sup> He does this, as Alison Laywine stresses, not

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<sup>31</sup> *OPB* Ak. 88.

<sup>32</sup> *OPB* Ak. 126-7. The second half of *OPB* is dedicated to considering the order and lawfulness of nature as *a posteriori* support for an *a priori* argument for the existence of God. Kant criticizes traditional physicotheology as being insufficient to prove God's existence, for it allows for the possibility that matter is independently self-creating. Kant advocates an "improved"

through his being as such, but through his free choice.<sup>33</sup> This understanding of production, insofar as it is based on free divine creation, is close to Leibniz's. However, the method Kant uses to get there is quite different: it is an analysis of existence, and not of the concept of God, that leads to this conclusion. The possibility and conceivability of things, and thus their actuality, depend on the *existence* of God, not on the concept of God.

Kant's emphasis on existence comes with a belief that divine creation is the only way of explaining the existence of things. One could argue that the idea of creation was implicit in Kant's analysis of existence all along, and that absolute positing is nothing other than divine creation. The connection between Kant's inquiry into being and his notion of production could thus be said to predetermine what he takes to be the meaning of existence. This is precisely the line that Heidegger takes in his *Basic Problems of Phenomenology*, where he argues that a certain "productive comportment" towards the world is implicit in Kant's philosophy, as Heidegger takes it to be in the entirety of western metaphysical thought. Heidegger maintains that the idea of createdness — that something possible is "conveyed over" to the actual, whether by adding predicates or by absolute positing — is based on the medieval distinction between *essentia* and *existentia*, which Kant preserves as reality and actuality.<sup>34</sup> The Aristotelian heritage suggests that the distinction between essence and existence is fundamental for production: only if a possible concept is distinct from actual existence can the production of beings occur. Whereas for Wolff this involves adding actuality to the concept of the essence of the thing, for Kant, the thing is

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physicotheology which arrives at God as the ultimate creator of all possibility from an analysis of the necessary unity of the universe rather than its contingent connections (see Ak. 123-7). Kant also addresses the debate over preformation and epigenesis, the question of whether God originally created each individual organism, or whether God created only the initial conditions for a system of natural generation. Kant is clearly more open to epigenesis as an explanatory model, a position which is consistent with his early scientific views and which he continued to hold throughout his life, (see *CJ*, esp. §§80-81). For a discussion of the epigenesis-preformation debate in the eighteenth and nineteenth centuries as it affected Kant, see Helmut Müller-Sievers, *Self-Generation: Biology, Philosophy, and Literature around 1800* (Stanford: Stanford UP, 1997); and Shell. For a general overview of Kant's early scientific position, see Buchdahl, *Metaphysics and the Philosophy of Science*, Friedman, *Kant and the Exact Sciences*, and Laywine.

<sup>33</sup> Laywine 126-7. "On Kant's account [in *OPB*], God freely chose to create matter; he freely chose to subject matter to Newton's laws of motion; and he freely chose to endow matter with certain forces."

simply posited with all its predicates, and its concept or essence remains unchanged. With both philosophers actuality involves some activity on the part of God. Heidegger traces actuality back to *agere*, acting: that which is actual is possibility which has been actualized, enacted.<sup>35</sup> And this specific characterization of all extant things as enacted, Heidegger says, comprehends beings in terms of a productive comportment towards them. This is the charge that Heidegger lays on Kant, asserting that Kant's connection between being and production is entirely traditional.

What is remarkable in *The One Possible Basis* is not the content of Kant's conception of divine creation, but the method by which he arrives at it. It is through an analysis of existence, and the necessity of existence to knowledge, that divine creation emerges as the productive basis of existence. Kant evidently maintains a distinction between possibility and actuality, and thus between essence and existence; he also maintains a conception of an active God that posits beings into createdness. Heidegger's charge of productive comportment, as I will show in the next section, is generally appropriate. But as we move into Kant's critical philosophy in section 1.4, we can use this notion of productive comportment against Heidegger's rather limited reading to show that existence, for Kant, is the product of *natural* and not divine activity. Furthermore, the relation between essence and existence, between the epistemological and existential ontologies, will prove to be far more complex in Kant's system than Heidegger's analysis allows for.

### 1.3 Heidegger's theory of productive comportment

In order to determine the relation between production, existence, and knowledge for Kant, I will make use of Heidegger's claim that Kant understands being in terms of productive comportment. This will give us a way, in the

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<sup>34</sup> *BPP* 93, 99. Friedman (*Kant and the Exact Sciences*, 188) points out that Kant distinguishes the essence of a thing from the nature of a thing: the former pertains to concepts, while the latter pertains to existence.

<sup>35</sup> The connection between action, activity, and actuality is from Aristotle's *Metaphysics*, esp. Theta VI-VIII.

following chapters, of considering how a notion of production influences Kant's understanding of nature and human spontaneity. Productive comportment is, for Heidegger, an intentional attitude of a *Da-sein* towards a thing: an attitude that interprets the thing and its being in terms of its function in a productive system.<sup>36</sup> This comportment understands that things have been produced, are producible, or are not in need of production. It is this productive comportment that Heidegger says has guided the interpretation of the existence and essence of beings since early Greek philosophy.<sup>37</sup>

Heidegger argues that one of the earliest examples of such thinking is to be found in the relation between *morphe* (form) and *eidos* (look, idea) in Greek philosophy. While for modern philosophy the look or essence of a thing is determined by its form, for Greek ontology it is the opposite: the form of a thing, *morphe*, is determined by its look, *eidos*. Heidegger suggests that this is explained by technical production, in which the look precedes the form: the producer begins with the idea, the anticipated look, of what is to be produced through shaping and forming.<sup>38</sup> The *eidos* is the image of imagination which determines what the thing

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<sup>36</sup> Heidegger uses the word *Da-sein* in his earlier philosophy (pre-1935) to refer to “that being for whom being is an issue”. While convenient to take it as short-hand for human consciousness, it is important to distinguish Heidegger's meaning from previous philosophical accounts of mind, subjectivity, soul, etc. What is crucial about human consciousness as *Da-sein* is that its being is an issue for it.

<sup>37</sup> *BPP* 104-5. Heidegger does not here go into the reasons why a thinking of production grounds thinking about things, but the reasons can be adduced from his other works. In *Being and Time*, for instance, Heidegger seems to suggest a sort of materialist anthropological explanation — humans think in terms of production because production, transforming things of nature into things of use, is the primary mode of human activity in all cultures and at all points in history. Beings are thus primarily understood as either useful or unuseful, *Vorhandene* or *Zuhandene*, ready-to-hand or present-at-hand. In this he moves along a Hegelian-Marxist trajectory, asserting the value of the hand-made item over the mass-produced and valourizing the craftsperson over the labourer. Unlike Hegel and Marx, though, Heidegger does not suggest that the producer's subjectivity is constituted or transformed by his mode of production; it is, rather, *being* that is transformed as modes of production develop. While in Heidegger's early work it is explicitly *Da-sein's* understanding of being that changes, in his later work it is *being itself* that reveals itself in different ways. See *Being and Time*, trans. Joan Stambaugh (Albany: SUNY Press, 1996), esp. §§14-24, and *Contributions to Philosophy (from Enowning)*, trans. Parvis Emad and Kenneth Maly (Bloomington: Indiana UP, 1999), esp. divisions II and III.

Interestingly, Henri Bergson offers a similar account of the human tendency to understand nature by way of production. In *Creative Evolution* he criticizes both the mechanistic and teleological explanations of nature on the grounds that they fail to allow for “an unforeseeable creation of form” (p. 45). This, he says, is due to the grounding of biological theory in a principle of repetitive production based on human craftsmanship. Generation is thus understood as if all were given or foreseen in advance. See Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (Mineola, NY: Dover, 1998).

<sup>38</sup> *BPP* 106.

“already was and is before all actualization”.<sup>39</sup> Because the *eidos* is prior to the actualized thing, and because it contains the total reality of what the thing already was, the *eidos* is the unchanging “truth” of the thing: this emerges most clearly in Plato, where the idea represents the true reality of the particular. Heidegger also argues that the *eidos*, which contains all the qualitative determinations of a thing, constitutes the thing’s completedness, its delimitation as what it is, and thus its thing-determinateness.<sup>40</sup> Only because a specific *eidos* governs production can a thing be defined as some specific thing, and its whatness be ascertained. This outlook on beings considers that things are understandable as specific things because they have been formed or produced according to an *eidos*. And this means that beings are apprehended as having been produced to stand completed on their own: they are produced, placed-before (Heidegger plays on *Herstellen*) the apprehending person for use, released from their relation to the producer. The reality, whatness, or *essentia* of a being is thus directly related to its usability and its standing independently present, ready for use.<sup>41</sup>

Heidegger explains that the Greek word for “that which is”, *ousia*, originally referred to property, and beings became synonymous with “at-hand disposable” possessions.<sup>42</sup> *Ousia*, that which is, is the present at hand, available for use; existence, then, is interpreted as permanent presence. “Being, being-actual, or existing, in the traditional sense, means presence-at-hand”.<sup>43</sup> In his *Introduction to Metaphysics* Heidegger adds that the Greek sense of being, as permanent presence, has the character of standing in itself, manifesting itself for apprehension.<sup>44</sup> He therefore describes the mode of access to the extant as *Vorfinden*, finding the existent thing present before us. That which exists is, for ancient Greek philosophy, accessed through an “intuitive finding present” [*das anschauende Vorfinden*] which is also known as *aisthesis*, a beholding perception.<sup>45</sup> Heidegger points out that such perception is only a modification of productive behaviour, which involves “sight” in the sense of the fore-sight of the anticipated look of the

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<sup>39</sup> BPP 107.

<sup>40</sup> BPP 108.

<sup>41</sup> BPP 108-9.

<sup>42</sup> BPP 108-9. See also his *Introduction to Metaphysics*, trans. Ralph Manheim (New Haven: Yale UP, 1959), esp. 60ff and 194ff.

<sup>43</sup> BPP 100.

<sup>44</sup> *Introduction to Metaphysics* 63-4.



thing to be produced; while the thing's whatness is prescribed by fore-sight, its thatness is established through intuitive seeing. The actuality of the actual is manifested *only* in pure intuition. Furthermore, the actuality of the thing can be established only by referring back to its production, the fact that it has been produced according to an *eidōs* and completed, set before us for use. When things are understood according to productive comportment, their actuality is only comprehensible in the context of their production and perception — things have been produced and set out to be found present by intuition. Heidegger's point here is that the concepts of both essence/reality and existence/actuality refer back to production and are grounded in human productive comportment.

This, for Heidegger, is the ground on which the Western ontological tradition is based: the producedness of beings is the presupposition for their capacity to be apprehended in perception, and it is with a productive comportment towards beings that we apprehend and understand the world.<sup>46</sup> A productive existential ontology, then, is at the basis of epistemology. Even things which are not understood to be produced by a producer — things of nature — are understood in terms of productive comportment, for these are understood to be the raw materials which are already present for producing other things. Productive comportment not only understands individual things as produced, but apprehends the world in terms of a structure of producing.<sup>47</sup> And this comportment towards beings determines how their *being* is understood. It is due to productive comportment that objects are understood as independent: as produced, beings are finished and released from their relation to a producer, standing independently on their own, available for use. This means that things have an existence, a being-in-themselves, that is not dependent on humans: “the being that is understood in productive comportment is exactly the being-in-itself of the product”.<sup>48</sup> In being apprehended in terms of productive comportment, things are already understood to be in-themselves, to have being which is not dependent on a human producer. The being-in-itself of a thing is thus *always already established* in the apprehender's comportment

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<sup>45</sup> BPP 109-10.

<sup>46</sup> BPP 112-3. Similarly for Bergson: the assumption of natural philosophy that nature produces like from like allows human action, based on induction, to proceed (44-5).

<sup>47</sup> BPP 115-6.

<sup>48</sup> BPP 113.

towards the thing. It is this particular point that Heidegger uses to approach the place of production for Kant.

Heidegger maintains that there is “an undeviating continuity of tradition” from ancient and medieval philosophy to Kant, insofar as being is consistently interpreted by way of production.<sup>49</sup> For the Kant of *The One Possible Basis* essay, absolute positing is divine creation, and existence is createdness: only something which has been created by God can then be posited by a human subject. Heidegger suggests that the medieval sense of creation that Kant inherits is related to, though not identical with, the ancient concept of production. From Greek to Latin philosophy, Heidegger claims, there is a shift from understanding the world in terms of natural and human production (*phusis* and *techne*) to understanding the world in terms of creation by God: *that which is* is understood as *ens creatum*, while God is the unique *ens increatum*, the creator of all beings which is not itself in need of creation.<sup>50</sup> Medieval and early modern philosophy thus continue to understand beings in terms of production. The pre-critical Kant is clearly thinking along these lines when he suggests a divinely created world and describes God as eternal and immutable necessary existence: the creator who does not himself stand in need of being created, whose existence is not posited existence.

Heidegger’s claim is that beings, for Kant, are thought as produced permanent presence. Thus he adds that absolute positing for Kant means “positing as letting something stand of its own self”.<sup>51</sup> When a thing is absolutely posited, it is posited in and for itself, standing independently of its creator. The creator gives the thing a “being in itself” so that it may stand on its own. And this essential level of being is inaccessible to the human observer. It is certainly clear that in *The One Possible Basis*, Kant attributes to things an internal possibility or substance created by God and inaccessible to human intuition. It is this internal possibility that gives things their “thoroughgoing relations of unity and coherence” such that they exhibit universal harmony with one another.<sup>52</sup> While the human observer can speculate about the purpose of this harmony, she cannot access its true workings.

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<sup>49</sup> BPP 117.

<sup>50</sup> BPP 118-9.

<sup>51</sup> BPP 117-8.

<sup>52</sup> See OPB Ak. 96ff.

For Heidegger this limitation of knowledge with respect to creation is explicable in the context of productive comportment. He interprets Kant to be saying that human intuition cannot access the “true being” of things because the former has not created the latter.<sup>53</sup> To substantiate this claim he draws upon two of Kant’s pre-critical remarks: “finite beings cannot of themselves know other things, because they are not their creator”, and “no being except the creator alone can cognitively grasp the substance of another thing”.<sup>54</sup> Just as knowledge of the *eidōs* is restricted to the producer for the Greeks, knowledge of the true being or substance or inner possibility of things is limited to that being who has created the things. Human knowledge, meanwhile, is limited to those things that human intuition can reproduce through the process of representation. While God’s knowledge is existentially and essentially creative, human knowledge is epistemically reproductive of that which is already produced. This implies not only an understanding of being in terms of production, but also a connection between the conditions of knowledge and the conditions of production. Only what is existentially produced by God to be permanent presence can be perceived, and only what is epistemically reproduced, according to the application of the cognitive faculties to the perceived object, can be *known*. Furthermore, Heidegger’s model allows us to see how the existential and epistemological ontologies become separated in modern thought: existential creation is God’s business, while epistemic reproduction is humanity’s.

Heidegger’s analysis also shows that these two ontologies cannot be unrelated. For beings that can be epistemically represented must first have been existentially created. This makes existence, as producedness, the condition for the possibility of knowledge. And knowledge (or experience) of things is the only way we can establish their existence or producedness. In experiencing something, we establish its being as being-produced, as having been created to be present to experience. We do not grasp *what* the substance or inner possibility of the thing is; we grasp only *that* the thing has been created. Heidegger comments on Kant’s two pre-critical statements thus:

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<sup>53</sup> BPP 149.

<sup>54</sup> Kant, Reflection no. 929 and *Metaphysik L1*, LM Ak. 28:204, p. 27, qtd. BPP 149-50.

A genuine cognitive grasp of a being in its being is available only to that being's creator. The primary and direct reference to the being of a being lies in the *production* of it. And this implies that *being of a being* means nothing but *producedness*. [...] The being of things is understood as being-produced. In Kant this is present basically as a self-evident matter of course, but it does not receive explicit expression.<sup>55</sup>

Thus on Heidegger's reading, Kant understands being as the substance or inner possibility of things created by God. Because that substance or inner possibility can be grasped only by God, however, being becomes synonymous with the mere *existence* of beings, for their existence, established in experience, indicates that God has created them, and thus identifies them as having being (i.e. substance or inner possibility accessible only to God). The being of beings, then, refers primarily to their existence or producedness.

The implication of Heidegger's analysis is that Kant conflates being with beings; in other words, that he elides the meaning of being with the existence of individual things. On Heidegger's account, Kant equates being with the created existence of things and does not ask how they differ. For this reason, Heidegger believes that Kant remains firmly within an "ontology of the extant".<sup>56</sup> Kant's ontology presupposes that the being of beings is their producedness. Heidegger's aim is to reveal the understanding of being presupposed by Kant's explication of existence, and his analysis, I believe, accurately reflects Kant's *One Possible Basis* essay. In 1763, Kant clearly does explicate existence based on the notion that God actualizes possibility; existence is produced presence. The underlying presupposition that *being* is equivalent to produced presence follows from Kant's ontological shift away from Wolff. The consequence of Kant's inclusion of existence in ontology is that existing things grounded in the necessary existence of God become the focus of ontological concern, so being is thought in terms of *presence* rather than *essence*, and in terms of *producedness* rather than *conceivability*. On Heidegger's analysis it is precisely Kant's advance beyond

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<sup>55</sup> BPP 150.

<sup>56</sup> BPP 148.

Wolff in including existence in ontology that makes him vulnerable to Heidegger's charge of conflating being with beings; and it is Kant's advance in defining existence as absolute (divine) positing that leaves him open to the charge of reducing being to producedness.

However, Heidegger's analysis is suitable only insofar as Kant defines existence as absolute (divine) positing. If existence is taken to be the product of God's positing, and if God's activities remain unknowable to us, then being will be thought in terms of the producedness of things. But if existence is taken to be the product of *human* positing, and thus as the result of our own activities, being must be thought in a different way. I claim that this shift occurs in the *Critique of Pure Reason*, where the existence of things is the material content of experience, which is determined *as existence* by the transcendental category of existence. The intuited manifold is determined as "existence" by human understanding, through application of the categories; furthermore, it is determined as causal, *productive* nature. Under these circumstances, existence is not equivalent to createdness by God, but is determined, within the bounds of possible experience, as natural productivity. How must we characterize Kant's underlying presupposition of being when existence is characterized as the material content of experience, determined by epistemic structures? We will see that both existence and being must be defined in terms of the relation of object to subject. Heidegger, in arguing that being for Kant is produced permanent presence, does not sufficiently take into account that existence is always existence within the conditions of possible experience; nor does he recognize that within these conditions, it is productivity rather than producedness that allows for knowledge. The relations between being, existence, knowledge and production in the *Critique* are considerably more complicated than Heidegger's analysis suggests.

Where Heidegger is most successful is in identifying that Kant's ontology is a productive ontology. Both Kant's theory of existence and his theory of possible knowledge, as we have seen them in *The One Possible Basis*, rely on a notion of the production of existence. We have also seen how Kant's ontology has advanced beyond Wolff's. The Wolffian notion of ontology had nothing to do with existence or actuality: it was concerned with logically possible being. Kant's notion of ontology requires existence as well as logical non-contradiction; it requires a

relation between subject and object. We will see that being, for Kant, is synonymous with this subject-object relation, and that being requires both existential and epistemic conditions. While Kant continues to define “ontology” epistemologically, as the science of the conditions of possibility of knowledge, he adds that the concepts must bear a relation to objects of the senses. Kant defines ontology in his essay of 1791, “What Real Progress has Metaphysics made in Germany since the Time of Leibniz and Wolff?”:

Ontology (as a part of metaphysics) is the science that comprises a system of all concepts and principles of understanding, but only insofar as these extend to objects given by the senses and can, therefore, be justified by experience. It does not deal with the supersensible, the ultimate end of metaphysics, and thus belongs to the latter only as a propaedeutic. Ontology is the porch or entry way of metaphysics proper and will be called transcendental philosophy because it contains the conditions and first elements of all our knowledge *a priori*.<sup>57</sup>

With this statement Kant says explicitly that ontology is concerned with concepts and principles insofar as they relate to appearances — ontology is not concerned with the supersensible, or with things in themselves, but is located in the realm of representation and possible knowledge. While that is to say that ontology is concerned with epistemological grounds, it must also be concerned with existential grounds, insofar as they make up the material component of objects of possible experience. Ontology is located where the formal conditions of experience meet the material conditions of experience, and is limited by the bounds of possible experience. Kant’s is an epistemological ontology, but one that refuses to restrict itself to the logical examination of concepts: ontology is a system which grounds knowledge by connecting concepts to existing things. Ontology is both epistemological and existential for Kant.

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<sup>57</sup> *What Real Progress*, 53 (translation slightly modified). Earlier, similar definitions of ontology can be found in *Metaphysik Mrongovius* and *Metaphysik L2*. *LM Ak.* 29:784, p. 140; *Ak.* 28:542, pp. 308-9.

The above quotation could, of course, be an abstract of the *Critique of Pure Reason*, indicating that Kant thought of that work as an ontology, as he himself suggests in its closing chapters.<sup>58</sup> I will now go on to look at being and existence in the first *Critique*, to consider the development of Kant's doctrine away from divine creation and to consider the extent to which he nevertheless maintains a productive comportment, as Heidegger suggests.

#### 1.4 Existential grounds in the *Critique of Pure Reason*: The move to natural production

The above remarks suggest that Kant's first *Critique* is an ontological work, where ontology is understood to be an epistemic system of concepts and principles of the understanding, insofar as they make experiential knowledge possible *a priori*. I have also suggested that the epistemic system must rest on existence which is characterized by a notion of production. While *The One Possible Basis* presents a theory of existence based on divine creation, we will see a different notion of production taking hold in the first *Critique*, blurring the distinction between existential and epistemic grounds. An existential ontology might, as Adorno suggests in his lecture course on Kant, be "salvaged" from epistemology.<sup>59</sup>

The first half of the *Critique of Pure Reason* (Transcendental Aesthetic and Transcendental Analytic) is ontological in precisely the sense Kant describes. The second half, the Transcendental Dialectic, concerns that to which ontology is propaedeutic, according to Kant: the supersensible, as soul, cosmos, and God. Heidegger compares the divisions of the *Critique of Pure Reason* to the divisions of Wolffian metaphysics: the Aesthetic and Analytic are characterized as *metaphysica generalis* (ontology), while the Dialectic with its three chapters is characterized as a critique of *metaphysica specialis* (psychology, cosmology, theology).<sup>60</sup> Kant's explicit discussion of being occurs not in what is properly his

<sup>58</sup> CPR A845-6 / B873-4. This is also clear in the sections on ontology in *LM*.

<sup>59</sup> Theodor W. Adorno, *Kant's Critique of Pure Reason*, ed. Rolf Tiedemann, trans. Rodney Livingstone (Stanford: Stanford UP, 2001), 85-8.

<sup>60</sup> *KPM* 5-6. Kant himself discusses his work in light of such divisions at CPR A845-6 / B873-4.

ontology, but rather in his critique of theology. Kant criticizes the ontological proof for the existence of God in much the same terms as he had in *The One Possible Basis* essay. As in that essay, he does this by way of definitions of being and existence. These terms do not have exactly the same meanings as they did in Kant's pre-critical work. In the *Critique of Pure Reason*, *Dasein* is used to name the modal category of existence: it is among the pure concepts of the understanding, equivalent to the concept of actuality. *Sein*, by contrast, is the copula of predicative positing, a logical predicate rather than a real predicate. Thus Kant's thesis about being:

‘*Being*’ is obviously not a real predicate; that is, it is not a concept of something which could be added to the concept of a thing. It is merely the positing of a thing, or of certain determinations, [as existing] in themselves.<sup>61</sup>

Kant tells us that a “real predicate” is a predicate that determines a thing, that is added to the concept of the thing and enlarges it.<sup>62</sup> As in *The One Possible Basis*, Kant asserts that being is not a predicate of this kind. The addition of being to a thing's concept does not enlarge the concept of what the thing is. It does not affect the thing's *reality*. It is useful at this point to note Kant's important distinction between reality [*Realität*] and actuality [*Wirklichkeit*]. “Reality”, for Kant as for Baumgarten and Wolff, does not describe that which is real in the sense of really existing, but rather describes the determinateness of a thing.<sup>63</sup> From the Latin *res*, Kant aligns *realitas* with *Sachheit*, thingness or thing-determinateness; in the table of categories reality is listed under *quality*.<sup>64</sup> The reality of a thing is its *quidditas*, its what-content; thus a “real predicate” is an essential predicate which determines what the thing is.<sup>65</sup> To say that being is not a *real* predicate is to say that being contributes nothing to the determination of a

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<sup>61</sup> CPR A598 / B626. I have added brackets around Kemp Smith's words “as existing”, which do not appear in the German text.

<sup>62</sup> CPR A598 / B626.

<sup>63</sup> Heidegger discusses the origins of this distinction at *BPP* 28ff; see also John Sallis, *The Gathering of Reason* (Athens, OH: Ohio UP, 1980) 134-5.

<sup>64</sup> CPR B182: A80 / B106.

<sup>65</sup> *BPP* 34-38.



thing, cannot tell us anything about *what* the thing is in its essence. As in *The One Possible Basis*, Kant says here that “the [actual] contains no more than the merely possible” and uses the well known example: “A hundred [actual] thalers do not contain the least coin more than a hundred possible thalers”.<sup>66</sup> The possible and the actual do not differ in their reality: both are determined by the concept of a hundred thalers. They differ, rather, in their actuality: only the actual money has existence, extantness, or as Heidegger will have it, presence-to-hand.

Being, which is not a real predicate, has nothing to do with reality. Rather, being is both a logical predicate and an existential predicate. In its logical use it is the relation-word or copula which relates predicates to their logical subjects. In its existential use, “we posit the subject in itself with all its predicates, and indeed posit it as being an *object* that stands in relation to my *concept*”.<sup>67</sup> This second use of the word “being” is roughly equivalent to the meaning ascribed to the word “existence” in *The One Possible Basis*. The thing is not just a possible manifold of predicates, but is *actual* and can be known *a posteriori*.<sup>68</sup> This is what Kant means when he asserts that being is the positing of a thing, or of certain determinations, in themselves. Being, as well as functioning as a logical copula, can be an assertion of actuality, describing a thing’s thatness rather than its whatness. This definition of being differs from Kant’s definition of existence in *The One Possible Basis*, however, in that *we* are the ones who do the positing, and things themselves are not generated by our positing activity. The pre-critical essay states that things come into existence by virtue of God’s absolute positing. The *Critique of Pure Reason*, by contrast, claims that human subjects posit that a thing exists on the basis of experience. Yet this fails to account for the origin of existence, explaining only the origin of our *account* of existence. The notion of divine creation built into the pre-critical concept of existence has seemingly vanished.

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<sup>66</sup> CPR A599 / B627. I have substituted the word “actual” where Kemp Smith confusingly uses the word “real” (Kant uses *Wirkliche* in both cases). The idea that being is not a real, substantive predicate is to be found in Aristotle’s *Metaphysics*. In Gamma II, for instance, we learn that “nothing is added by the extension of the expression [man] to ‘He is one man’ and ‘He is one man that is’.” (1003b). Kant reiterates this point by adding to his own thesis: “we do not make the least addition to the thing when we further declare that this thing *is*” (CPR A600 / B628). In both cases the addition of being does not enlarge the concept of the thing in question.

<sup>67</sup> CPR A599 / B627.

<sup>68</sup> CPR A600 / B628.

What, then, has happened to Kant's pre-critical notion of God as the necessarily existing, productive ground of all existence? What grounds and originates the existence of things? Kant asserts that we may *think* of God as being such a ground — just as we may think of the concept of God as including omnipotence — but we must not presume that such a concept has any actuality. Reason, Kant says, needs to assume something necessary as a basis of existence in general, but from this “purely arbitrary idea” the existence of such a being cannot be proven.<sup>69</sup> However, we may legitimately *postulate* a necessary being as the ground of all existence, so long as we do not presume the necessary existence of such a being.<sup>70</sup> That is, the idea of a necessary being that grounds all existence is an *ideal* of reason. An ideal, Kant says, is an idea that has been individuated and hypostatized into an individual thing, “determinable or even determined by the idea alone”.<sup>71</sup> The ideal has no objective reality — that is, no appearance that corresponds to it — but it functions in a regulative capacity, as a concept of something entirely complete by which reason may measure the incomplete.<sup>72</sup> An ideal is an epistemic regulator, in this case masquerading as an existential ground.

The *sum-total of all possibility* is such an ideal. According to the Scholastic principle of complete determination, which Kant retains, this sum-total of all the possible predicates of things is presupposed as a condition of the determinateness of any given thing. Each thing has a certain number of positive predicates from the sum total, and the remaining predicates are negative for that thing; that is, for every possible predicate, a thing is either positively or negatively constituted. Thus each thing is capable of being completely determined. This principle, Kant says,

contains a transcendental presupposition, namely, that of the material *for all possibility*, which in turn is regarded as containing *a priori* the data *for the particular possibility* of each and every thing.<sup>73</sup>

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<sup>69</sup> CPR A603 / B631. For a simplified version of Kant's argument, see his 1786 essay “What is Orientation in Thinking?”, in Kant, *Political Writings*, ed. Hans Reiss, trans. H.B. Nisbet (Cambridge: CUP, 1991), 237-49.

<sup>70</sup> CPR A612 / B640.

<sup>71</sup> CPR A568 / B596.

<sup>72</sup> CPR A569-70 / B597-8.

<sup>73</sup> CPR A573 / B601.

The idea of this sum-total is an ideal of pure reason, necessary for understanding the determinability of things in general. Kant adds:

If [...] reason employs in the complete determination of things a transcendental substrate that contains, as it were, the whole store of material from which all possible predicates of things must be taken, this substrate cannot be anything else than the idea of [an All of reality]; an *omnitudo realitatis*.<sup>74</sup>

The existence of things, as far as we can experience and determine them, presupposes the ideal of a qualitative totality, a store of all possible content for things. “Nothing is an object *for us*, unless it presupposes the sum of all empirical reality as the condition of its possibility”.<sup>75</sup> This is a powerful statement which, as we will see, has resonance through the *Critique* and Kant’s later texts. The possibility of our knowledge of individual objects presupposes that we have an idea of the totality of all reality as the ground of the real determinations of those objects.

Yet this *idea* of the totality of all reality is transformed by reason into an existential ground; it is made identical with the concept of an *ens realissimum*, the concept of a “total reality” thing which contains within itself all possible determinations of existing things.<sup>76</sup> Reason objectifies this concept, taking it to be a being, and calls it “the primordial being”, “the highest being”, “the being of all beings [*das Wesen aller Wesen*]”.<sup>77</sup> The idea is hypostatized into the concept of God. Yet to assume the existence of this idea as a thing is to overstep the limits of the transcendental idea:

These terms are not [...] to be taken as signifying the objective relation of an actual object to other things, but of an *idea to*

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<sup>74</sup> CPR A575 / B603. Kemp Smith omits what I have placed in brackets, which occurs in the German text.

<sup>75</sup> CPR A582 / B610.

<sup>76</sup> CPR A576-7 / B604-5.

<sup>77</sup> CPR A578 / B606.

*concepts*. We are left entirely without knowledge as to the existence of a being of such outstanding pre-eminence. [...] Reason, in employing it as a basis for the complete determination of things, has used it only as the concept of all reality, without requiring that all this reality be objectively given and be itself a thing. Such a thing is a mere fiction in which we combine and realise the manifold of our idea in an ideal, as an individual being.<sup>78</sup>

“The being of all beings” is not an actual object and does not necessarily exist; it is only the *idea* of such a being that reason presupposes. *This being*, the sum-total of all possible determinations, must not be understood as *a thing*. It is not that the possibility of *things* presupposes some necessarily existing thing, but rather that our *concepts* of the possibility of things require the *idea* of a sum-total of all reality. It is by means of a “transcendental subreption” that reason moves from this idea to that of the *ens realissimum*, “substituting for [the idea of a sum-total] the concept of *a thing* which stands at the source of the possibility of all things”.<sup>79</sup>

Why does this transcendental subreption take place? Why does reason insist on transferring the idea of a sum-total that makes concepts possible, onto the idea of an existent thing purported to make *things* possible? The origin and ground of existence is at stake here, and Kant is suggesting that our attempt to derive existence from this hypostatized idea is illegitimate. Indeed, our attempt to derive existence from *any* hypostatized idea is illegitimate, and the concept of a necessarily existing thing can never be anything other than just such an idea. The existence of empirical things cannot be derived from the idea of a necessarily existing thing. Yet such ideas are our only way of postulating an absolute ground of existence:

Why are we constrained to assume that some one among existing things is in itself necessary, and yet at the same time to shrink back from the existence of such a being [*Wesen*] as from an abyss? [...]

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<sup>78</sup> CPR A579-80 / B607-8.

<sup>79</sup> CPR A582-3 / B610-1, emphasis mine.

While I may indeed be obliged to assume something necessary as a condition of the existent in general, I cannot think any particular thing [*Ding*] as in itself necessary. In other words, I can never *complete* the regress to the conditions of existence save by assuming a necessary being, and yet am never in a position to *begin* with such a being.<sup>80</sup>

Kant admits that *some* necessary ground must be assumed as the condition for existence in general, but denies that any particular thing can be thought to exist necessarily as this ground. The movement is enforced by the two regulative principles of necessity and contingency. The first “calls upon us to seek something necessary as a condition of all that is given as existent”, while the second “forbids us to treat anything empirical” as this condition.<sup>81</sup> Since nothing empirical can be thought to exist necessarily, reason may assume a necessary existential ground only outside the bounds of experience, “outside the world” as Kant puts it:

That being or principle [of a necessary original being] must be set outside the world, leaving us free to derive the appearances of the world and their existence from other appearances, with unfailing confidence, just as if there were no necessary being, while yet we are also free to strive unceasingly towards the completeness of that derivation, just as if such a being were presupposed as an ultimate ground.<sup>82</sup>

The important point here is that we are able to consider the existence of things *as if there were no necessary being*. Kant’s claim about existence, then, is that while reason may presuppose and strive towards an absolute existential ground, the existence of appearances can and should be derived from other existent appearances. The question of existence can be separated from the question of divine creation, and aligned instead with efficient causality. There is no absolute

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<sup>80</sup> CPR A 615 / B 643.

<sup>81</sup> CPR A 616 / B 644.

<sup>82</sup> CPR A 618 / B 646.

existential ground in the realm of appearance, for, according to the second analogy, all objects of experience must be thought to have been caused by other objects of experience. The ground of existence in the realm of appearance, then, is just other existence.

This suggests that existence is associated with a notion of production: not as divine creation, but as natural causality and generation. That Kant wishes to associate the question of existence with the question of natural production is suggested by the similarity of his discussion concerning an absolute existential ground to that concerning teleological and mechanistic explanations of nature. A teleological explanation aims at “a necessary first ground for all that belongs to existence”, while a mechanistic explanation “warns us not to regard any determination whatsoever of existing things as such an ultimate ground ... but to keep the way open for further derivation [of causes]”.<sup>83</sup> Accordingly, Kant advises us to adopt a mechanistic explanation for the possibility of natural beings, while using reason’s idea of an unconditioned, purposive first cause to inject systematicity into our concepts of natural beings and processes.<sup>84</sup> Existence, in the realm of appearance, is to be thought in terms of efficient causality, and thus in terms of natural production — in terms of the generation of organic beings and the production, through physical impact and chemical interaction, of objects of inorganic matter. In the realm of appearances, there is existence producing other existence, but no single cause or ground of production can be deduced; because (according to the third analogy) natural beings interact with one another, all of existing nature is productive.

Existence, then, is restricted to the bounds of possible experience, and if we are seeking an existential ground, our investigation must be limited to those bounds. This means that an inquiry into existence is circumscribed by epistemic conditions; objects that exist are objects of possible knowledge. The character of objects of experience, however — which I will discuss in chapter two — means that we will not find an absolute existential ground among them; we find, rather, existing things producing other existing things, in dynamical interaction. An absolute, unconditioned ground of existence cannot be found in the realm of

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<sup>83</sup> *CPR* A616 / B644.

<sup>84</sup> *CPR* A670 / B698 ff.

possible experience. As we have seen, an appeal to this ground can only be one of reason, employed to regulate experience in terms of the idea of unconditioned totality. Without the regulative idea of God, we would not be able to understand existence systematically; indeed, “nothing would be an object for us” unless we held onto the idea of a sum-total of all reality. But this idea cannot be our primary means of explaining the production of existing beings. Individual objects exist because they have been mechanically caused, or naturally produced, in one way or another. Natural production is the material condition of possibility of things in nature, which must be understood in terms of the concepts and principles of understanding; this conceptualized nature, in turn, must be unified by the ideas of reason.

This suggests that within the epistemic structure of concepts, principles, and ideas, is an existential ontology of natural production — that is, a notion of material nature as mechanism, the ongoing production of which is the condition of possibility of a world of existing things in general. *This* productive existential ontology is at the basis of the epistemological ontology, whereas a theory of divine creation, as Kant says, can only be posited at the end of scientific inquiry, after all natural explanations have been exhausted.<sup>85</sup> As we have seen, Heidegger argues that Kant’s ontology includes a productive comportment, with the understanding of existence and being based on producedness. My position is that existence continues to be understood in terms of production for Kant, but not in terms of divine creation; in being based on natural production, existence is understood in terms of *productivity*, and not in terms of producedness. Heidegger does not recognize this as a move significant to Kant’s understanding of being. As I will show, however, the productivity of existence means that being must be understood as productive and dynamic rather than as “produced permanent presence”. Kant’s epistemological ontology requires an existential ontology of natural production underpinning it. Natural production is not only the ground of the existence of things, but also the ground of all knowledge of nature. Indeed, it is the material ground of knowledge, just as the categories are the formal ground of knowledge.

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<sup>85</sup> CPR A693-4 / B721-2; A772-3 / B800-1.

Through this initial look at production in the first *Critique*, we can see that existential grounds and epistemological grounds are not distinct: production is the condition of possibility of existence and of knowing about that which exists. And this epistemic system, based on an existential ontology of production, *then* assumes a divine creator as explanation for that which cannot be explained naturally. Existential production is now nature's business, and epistemic reproduction continues to be humanity's — but epistemology now rests on a theory of existential production which epistemology itself must produce, through experience and synthetic *a priori* principles. Kant's epistemological ontology, as a system of concepts and principles, thus requires a productive existential ontology, and this existential ontology requires the epistemic structure to regulate it. The two must feed into one another if the human mind is to know anything about nature: the productive existential ontology must be available to the epistemic system, structured by it but also immanent to it as its grounding condition.

### 1.5 Being as relation

How do the notion of being and the concept of existence fit into this structure? I have been talking about a productive ground for the existence of things, which Kant puts in the context of discussion of a necessary being. Yet it will quickly be seen that these claims have little to do with Kant's own notion of being as he defines it in the Transcendental Dialectic. Being, for Kant, is not the origin of beings; nor is it a property of them nor a concept which determines them. Furthermore, being is not *a being*.<sup>86</sup> Being is an epistemic saying, an act of judgment that affirms the existence of a thing or the relation of a thing to a predicate. There is no reason to consider "being" as inhering in things or originating them; it is an affirmation that stems from the subject. It is significant that the word "is" has two different functions: that of positing existence (existential), and that of connecting two concepts (logical or epistemological). The

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<sup>86</sup> On this point, see Jacques Taminiaux, *Heidegger and the Project of Fundamental Ontology*, trans. and ed. Michael Gendre (Albany: SUNY Press, 1991), and Schalow, *The Renewal of the Heidegger-Kant Dialogue*.



“is” establishes not only the presence of a thing, but also the nature or essence of that thing. In both cases, though, the “is” has a strictly epistemic function, for even in its existential use, the “is” asserts the presence of a *knowable* thing *to a mind*; it does not indicate its mere existence. The “is”, in its existential use, affirms the relation the subject bears to an object: that is, the fact that the object is actual, present to perception and cognition.

Being is that very relation, the relation of subject to object. Being, for Kant, is the relation between mind and world, and the “is” is the iteration of that relation; the “is” is the proclamation by a mind that a world is present to it. This proclamation can only be made where some suitable material for cognition meets the forms of cognition, where extant things meet the epistemic system of concepts and principles. That realm of overlap, in which the possibility of representation arises, is being, subject-object relationality in general. Only under the condition that this is established can existence be ascribed to things. What can be ascribed to a world, then, is not *being* but existence. And existence is ascribed to the world through application of the categories. Thus it is that existence is one of the twelve pure concepts in Kant’s ontological “system of concepts and principles”, while being is neither a concept nor a principle. Nevertheless, being is amongst the conditions of possibility of knowledge as the initial subject-object relation that allows for the positing of a knowable world. Indeed, it is the supreme condition. Being is not a concept because it constitutes the very basis of the Kantian epistemological ontology, making possible the application of categories to a knowable object.

Kant’s notion of being has been interpreted by Paul Davies as “extra-categorical”, and similarly by Derrida as “transcategorical”.<sup>87</sup> On Heidegger’s late interpretation of this material, being is modality itself, one of the four pre-categorical divisions of judgments.<sup>88</sup> This supports an interpretation of being as relation for Kant. Modality, Kant tells us, is a peculiar function of judgment: “it

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<sup>87</sup> Paul Davies has noted in Kant’s critical philosophy “a sense of being that cannot be conflated with being extant”. See Paul Davies, “Kant’s Joke (Or, On Continuing to Use the Word ‘God’)”, in *The Matter of Critique*, ed. Andrea Rehberg and Rachel Jones (Manchester: Clinamen, 2000), 110-128, here at p. 127. Derrida argues that being, for Kant, transcends every concept, and is the condition of all concepts and categories. See Jacques Derrida, “The Supplement of Copula: Philosophy before Linguistics”, in *Margins of Philosophy*, trans. Alan Bass (London: Harvester Wheatsheaf, 1982), 175-205, here at p. 195.

contributes nothing to the content of the judgment [...], but concerns only the value of the copula in relation to thought in general". Later Kant adds that the categories of modality "do not in the least enlarge the concept to which they are attached as predicates. They only express the relation of the [object's] concept to the faculty of knowledge."<sup>89</sup> With regard to an object, categories of modality contribute no determination of content but rather determine what the copula of the judgment — the "is" — means for thought. There are three modes of this relation corresponding to the three categories of modality: the object is related to thought either as possible (i.e. it agrees with the formal conditions of experience), as actual (i.e. it is bound up with the material conditions of experience), or as necessary (i.e. it is determined in accordance with the universal conditions of experience).<sup>90</sup> These categories are akin to being in that they are not real predicates; their employment determines the precise relation between subject and object, as either possible, actual, or necessary. Thus "modality" in general can be expressed as subject-object relationality in general, and can be aligned with being as I have interpreted it. Possibility, actuality and necessity are indeed modalities of being, for they give a precise value to the copula. The "is" affirms the presence-to-mind of a thing, but the modal categories, including that of existence, must determine whether the thing in question is possible, actual, or necessary.

Aligning being with modality gives being a grounding function in the table of categories. As the unspecified relation between subject and object, being allows for the application of categories to the thing in question. This means that being is an epistemically grounding relation. The establishment of the relation of knowability between subject and object is necessarily the first step in any further inquiry into the object in question, whether it is made explicit or not: the narwhal must be established to be an object for a subject, and thus to be a knowable object. The establishment, with the "is", of the mind-world relation, in establishing that the object is intuitable, is the original condition for the determination of the object through the categories. Being is an original transcendental relation allowing for the correspondence of knowledge with the world, and thus makes knowledge possible.

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<sup>88</sup> Heidegger, "Kant's Thesis about Being", *Pathmarks*, 341.

<sup>89</sup> *CPR* A74 / B99-100; A219 / B266.

<sup>90</sup> *CPR* A218 / B265-6.

Heidegger does move towards this position in his 1961 essay, “Kant’s Thesis about Being”, consistently with his mature claim that being should be thought in terms of the relational “event” [*Ereignis*]. But in his 1927 *Basic Problems of Phenomenology* lectures he does not recognize that Kant casts being as the original transcendental relation. Instead, Heidegger claims that the intentionality of the human subject entails an original relation to the world, and in this relation the being of things is *disclosed as producedness*. Heidegger argues — much as he does in *Being and Time* — that a pre-philosophical grasp of being must precede the encounter with beings. With Kant, Heidegger says, this is expressed as a pre-cognitive relation between subject and object, which first establishes the field of intuitable objectivity.

Heidegger approaches this point through perception. Kant makes clear that perception is the means by which actuality is apprehended. When discussing being as positing, he suggests that when a thing is thought to exist, all that is added to the concept of the object is the perception of that thing.<sup>91</sup> Earlier, in his discussion of actuality in the Postulates of Empirical Thought, Kant specifies that “the perception which supplies the content to the concept is the sole mark of actuality”.<sup>92</sup> On Heidegger’s interpretation, actuality for Kant has to do only with the question of whether a thing is given in perception: only perception can establish that a possible thing has actuality, exists. This means that existential assertion has the character of perception: to posit a thing’s existence is to say that it can be perceived. “Kant thus says in short: actuality, existence, equals absolute position equals perception”.<sup>93</sup>

This is to say that existence, absolute position, and perception are all descriptions of the intuitive or epistemic relation between subject and object. Heidegger specifies that existence is not to be equated with the perceived object, but with its perceivedness, its relation to a positing subject.<sup>94</sup> This, of course, does not imply that the object exists only by virtue of its being perceived, as it would for Berkeley, but rather that perception establishes that the object exists for the

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<sup>91</sup> *CPR* A601 / B629.

<sup>92</sup> *CPR* A225 / B273.

<sup>93</sup> *BPP* 46. Taminiaux, 69-110, has unfolded a phenomenology of perception from Heidegger’s analysis of Kant in *BPP*, noting Heidegger’s curiously uncritical adoption of the traditional concept of perception.

positing subject. Heidegger points out, however, that “perceivedness presupposes perceivability, and perceivability on its part already requires the *existence* of the perceivable [...] being”.<sup>95</sup> Perceivedness and positing cannot be equated with extantness, but are ways of accessing this extantness.<sup>96</sup> Indeed, this is obvious from Kant’s statement that perception is the sole *mark* of actuality: perception is the only way we have of knowing that a thing is actual. We must presuppose that the perceivable thing exists prior to and independent of its relation to the subject; the thing must exist *before* positing can take hold of it. This points to the presupposition in experience of the extantness of the object that is prior to the cognitive relation; and if extantness is presupposed in experience, then, Heidegger says, the subject already somehow grasps this extantness. Heidegger argues that this is implicit in Kant’s text: the subject relates or comports itself towards the extantness of things as the first condition of possible knowledge.<sup>97</sup>

For Heidegger, extantness must somehow already be grasped: extantness must already be disclosed before the extant can be uncovered.<sup>98</sup> In other words, for Heidegger there is an original relation between subject and object in which the extantness of things is made manifest, prior to the existence of those things being determined by the categories. And Heidegger equates this *extantness* of things with Kant’s conception of *being*. It is at this point that Heidegger is able to draw a parallel between what he takes to be Kant’s notion of being and the existential structure of Da-sein as described in *Being and Time*. For Heidegger in this period, perception is an intentional comportment of the Da-sein, directed towards something whose mode of being is always already pre-conceptually understood. A disclosure of extantness belongs to Da-sein and is the condition of possibility of

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<sup>94</sup> BPP 48.

<sup>95</sup> BPP 49.

<sup>96</sup> BPP 67. I have used the term “extantness” to refer to that state that things might be in before their relation to the subject. This is distinct from “existence”, which refers to the state of things after they have been intuited and determined through the categories.

<sup>97</sup> Interestingly, and apparently without awareness of Heidegger’s argument, Buchdahl, in *Kant and the Dynamics of Reason*, proposes a similar reading of Kant. I will discuss Buchdahl’s original and insightful interpretation at greater length in chapter 3.

<sup>98</sup> BPP 71. The distinction between disclosure [*erschliessen*] and uncovering [*entdecken*] is important: that which is *disclosed* is that which is always already available to an intentional Dasein, while that which is *uncovered* is the object of the Dasein’s intentional comportment. Heidegger extends this to the ontological distinction: being is disclosed, beings are uncovered.

the uncoverability of extant things.<sup>99</sup> Heidegger extends this interpretation of the relation between perception and extantness to Kant:

With respect to its possibility, *perceivedness is grounded in the understanding of extantness*. [...] It is manifestly this understanding of being to which Kant recurs without seeing it clearly when he says that existence, actuality, is equivalent to perception.<sup>100</sup>

What Heidegger suggests is that the *being* of beings must be disclosed before any particular *beings* can be uncovered; before a thing can be encountered, determined, and posited along with all its predicates, its being must in some sense already be understood. Heidegger makes clear that this pre-cognitive relation is not “enacted” prior to intuition; rather, it is implicit in the basic constitution of *Da-sein*. “In existing, the *Da-sein* also already understands the mode of being of the extant, to which it comports existingly”.<sup>101</sup> But Heidegger equates *being* for Kant with extantness; that is, he equates being with the *presence* that things are assumed to have independently of experience. As I explained earlier, Heidegger argues that this experience-independent presence is attributed to things based on the assumption that they have been created by God, who alone can know that presence. In already “somehow grasping” experience-independent presence, Heidegger implies, the subject has a comportment towards the world in terms of its divine creation. So when Heidegger says that Kant understands being as extantness, he means, once again, that Kant understands being as *produced presence*.

The problem with Heidegger’s interpretation is that he attributes to Kant an understanding of being as the mind-independent existence of things. Heidegger indicates that Kant understands being as the being-in-itself of things, accessible only to God but presupposed by the human subject in the subject’s original

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<sup>99</sup> *BPP* 71. See also Heidegger’s introduction to *Being and Time*.

<sup>100</sup> *BPP* 71-2. It is unclear to me why Heidegger insists that Kant says that existence is equivalent to perception. Kant nowhere asserts their equivalence, but says that perception is the sole means of *verifying* the existence of something. Later in the passage to which Heidegger refers (*CPR* A225-6 / B273-4), it becomes clear that Kant is talking about how we acquire knowledge of the existence of things, i.e. only through perception.

<sup>101</sup> *BPP* 71.

comportment to the world. The association of being with the thing in itself for Kant is still promoted by some Kant scholars (most of whom would want nothing to do with Heidegger), and is a position with which I strongly disagree. If we start from Kant's own definition of being as positing, as asserting the relation of a knowable thing to a mind, we must recognize that being for Kant is located in the realm of possible experience, and not in the realm of things in themselves. Indeed, being is the original relation in which experience first becomes possible, in which things first become knowable and in which minds become able to know them. The being of things consists in their relatedness to a subject, in their participation in possible experience. Being does not consist in the thing in itself, which is defined precisely as that which *cannot* have any relation to a subject, that which cannot be judged, and that which cannot be existentially posited.

Once we understand being as the relation that is the first condition of possible experience, we can no longer determine the being of things to be equivalent to produced permanent presence. Rather, being is the original condition of possibility of the formal determination of the manifold, and of the manifold appearing to us in the ways that it does. This includes its appearance as productive nature. Being is not the producedness of things, but is rather the original productive condition of possibility of their *productivity*. The reason that nature appears as productive nature is, in fact, due to the productive comportment of the subject, which comportment is exercised in the original relation of being; but this will be made clear in chapters three, four, and five. Heidegger is right to claim that the Kantian subject is constituted by a productive comportment. He is wrong, however, to claim that the result of this is an equation of being and producedness; and he misses Kant's own recognition of the uses and limitations of human productive comportment.

Heidegger's phenomenological analysis is also useful in giving us the notion of an original ontological relation within Kant's cognitive system. But Heidegger's interpretation, that the being of things is *disclosed* in this relation, relies on the belief that Kant equates being with extantness. I have argued that being is this original relation itself, the primary and original ground for the possibility of knowledge. In the chapters that follow, I will show how this relation is characterized in Kant's texts. However, I want to make clear that this original

relation does not access that which is thought to ground existence absolutely in Kant's system. Nor does it access the supersensible, noumena, or things in themselves. Rather, being is strictly epistemically grounding: the original relation establishes the grounds of knowledge, not the grounds of existence or the unconditioned. As the relation between subject and object, between epistemic conditions and existence, being is located in and bounded by the realm of appearance; the supersensible "cause" of appearance, if there is one, cannot have anything to do with being.

Being is the basis of Kant's theory of knowledge, and is the original *formal* condition of the possibility of existence. It is not the absolute ground of existence as God was taken to be in *The One Possible Basis*. It is in Kant's philosophy of nature that we must seek the character and ground of existence: Kant's existential ontology is based on natural production, while divine creation takes on the status of an idea that regulates our understanding of natural production. Kant's epistemological ontology is a system of concepts and principles with being at their basis. Yet as we have seen, existence is structured by epistemic conditions, while also constituting the ground for the possibility of their employment. While the grounds of existence and the grounds of knowledge were strictly separated for some of Kant's immediate philosophical predecessors, for Kant they are intertwined: existence must be structured by the epistemic system as its form, while knowledge must depend upon existence as its content. Ontology for Kant involves both existence and concepts; it is the science of the *relation* of concepts to objects, of the relation of subject to object, and is thus the science of being. Both being and ontology are located in, and bounded by, the realm of possible experience.

## Chapter 1 Summary

In this chapter I aimed to determine the location and bounds of Kant's ontology and notion of being. I argued that Kant progresses beyond Christian Wolff's ontology of the concept by stressing the importance of existence, and found that Kant's ontology is both epistemological and existential. While

“ontology” for Kant denotes a system of concepts and principles, this system would be empty without existence as its material content.

Using Heidegger’s notion of productive comportment, I also argued that existence for Kant is tied to a notion of production: to the idea of divine creation in *The One Possible Basis for a Demonstration of the Existence of God*, and to the concept of natural production in the first *Critique*. I argued against Heidegger’s claim that being for Kant is equivalent to produced permanent presence. I examined Kant’s claim that being is merely positing and suggested that being, for Kant, is understood as the relation between subject and object. Thus both being and ontology are located in and bounded by the realm of possible experience, from which ideas of the supersensible and things in themselves are excluded.



## Chapter 2

### The ground of existence: transcendental principles, matter, and fundamental forces

[N]atural science must not leap over its boundary in order to absorb, as an indigenous principle, something to whose concept no experience whatever can be adequate and which we are not entitled to dare approach until we have completed natural science.<sup>1</sup>

#### 2.1 From reason to understanding

In this chapter I will focus on the existential side of Kant's ontology in the first *Critique*. As I explained in chapter one, existence in the *Critique of Pure Reason* must be considered as the existence of appearances. I claimed that existence, for Kant, can only be approached within the epistemic framework of concepts and principles, the *a priori* formal structures that determine the extant as an existing object of experience. In this chapter, I will discuss some aspects of that framework that are particularly important in determining appearances as "permanent presence" (and will reiterate that *being* is *not* determined as permanent presence). I will also look briefly at Heidegger's contention that the fact that for Kant, existence cannot be approached or considered without this framework, means that beings, and the relation of being, are "mathematical".

Another aim of this chapter is to determine the extent to which an absolute ground for existence can be found within the epistemic framework. I claimed in chapter one that no single being can act as such a ground. By examining Kant's matter theory in his *Metaphysical Foundations of Natural Science*, I will confirm

this position by claiming that no existential ground can be found beyond or outside of existence itself. However, existence can be redescribed in terms of the interaction of fundamental forces, which explains how matter as we perceive it is produced. Existence, approachable only through the epistemic framework that makes experience possible, is the ongoing productive activity of force. It can only be approached within the epistemic framework, but it is also a requirement for the possibility of knowledge. As Watkins also argues,

experience, an epistemological notion, requires an object of experience, which is broadly ontological in character. [...] The essence of the Critical turn [...] is] the subtle way in which ontological and epistemological considerations complement each other in the establishment of Kant's Critical system.<sup>2</sup>

Discussion of existence in the first *Critique* requires us to move from reason, discussed in chapter one, to understanding. In chapter one I drew attention to the conflict that the faculty of reason encounters between the idea of some necessary ground for existence and the idea of a necessarily existing *ens realissimum*, a single original and originating being. Kant's resolution of this conflict gives the idea of the divine creator a merely regulative status, such that things in the world are viewed "as if they received their existence from a highest intelligence".<sup>3</sup> The idea of divine creation does not tell us anything about the constitution of an object, but rather guides our inquiries into the connection of the objects of experience. And finding unity in the connection of objects of experience is reason's primary aim. Kant says that the idea of a highest intelligence

is only a schema constructed in accordance with the conditions of the greatest possible unity of reason — the schema of the concept of a thing in general, which serves only to secure the greatest possible systematic unity in the empirical employment of our

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<sup>1</sup> *CJ* §68, Ak. 382.

<sup>2</sup> "Kant on Rational Cosmology", in Watkins (ed.), 84-5. Watkins uses "ontological" in the sense that I use "existential".

reason. We then, as it were, derive the object of experience from the supposed object of this idea, viewed as the ground or cause of the object of experience.<sup>4</sup>

The order of play is clear: reason *constructs* a schema of “the concept of a thing in general”, and then treats the object of experience as if it were derived from the object of this idea. What Kant means by a “thing in general” here is the concept of unified objectivity in experience; reason treats it as a schema, in order to find the systematic unity of all empirical knowledge. Systematic unity is a regulative principle of reason, and the idea of a unifying highest intelligence is a schema of that principle.<sup>5</sup> Although this idea cannot have an object — as an idea, it lacks objective validity — it is *thought* (by analogy with real things) to have an object, and this object is thought to be the ground of the object of experience.

Reason applies its principle of systematic unity, and thus the idea of a divine creator, in order to ascribe an order to nature which is not given by the understanding. While the understanding is concerned with the formal conditions of possibility of objects and events in nature, reason is concerned with making the aggregate of such objects and events, determined as lawful, into a systematic unity. This idea of unity is problematic, as it is not given; it is only a projected unity, which remains forever the aim of the hypothetical employment of reason.<sup>6</sup> Thus the principle of systematic unity is regulative: it does not constitute objects themselves, but regulates the procedures of the understanding such that its objects are ordered and unified. In this sense the principle has “objective but indeterminate validity”; it has no corresponding object, yet it serves as a rule for possible *coherent* experience.<sup>7</sup> Without reason’s presuppositions of unity and homogeneity in nature, we would know that every event has a cause, but we would not know that similar events have similar causes and so would not experience any regularity of content in nature. We would thus experience such natural diversity that we would have no universal empirical concepts, and therefore no empirical

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<sup>3</sup> CPR A671 / B699.

<sup>4</sup> CPR A670 / B698.

<sup>5</sup> See CPR A679-82 / B707-10.

<sup>6</sup> CPR A647 / B675. See also A663 / B691, where Kant describes “ideas which reason follows only as it were asymptotically, i.e. ever more closely without reaching them”.

cognition.<sup>8</sup> It is only on reason's presupposition of natural systematic unity that experience is *empirically* possible and empirically lawlike. The need for the empirical coherence of nature requires reason to presuppose a principle of necessary unity, and to hypostatize this unity in a transcendental object thought by analogy with real substances.<sup>9</sup> Thus the divine existential ground is set up by reason to give unity to experience, in accordance with its own principle that there *must* be unity in experience.

The idea of the divine creator grounds our explanation of the order and unity of existence. For reason, in its regulative use, is concerned with deriving an *order* of nature, and is therefore involved in constructing the lawlikeness of specific empirical groupings in nature. Reason's law of the necessary presupposition of systematic unity allows us to comprehend the *specific* differences nature exhibits — a structure of similarity and difference, genera and species<sup>10</sup> — and thus to form specific laws of the order and unity of objective things and sequences. The lawlikeness of empirical laws is brought about by reason, injecting systematicity and necessity into the contingent perceptions which understanding has given as objective things and sequences. Reason makes possible an *empirical* natural science, where generalizations based on observational and experimental data can be regarded as necessary laws.<sup>11</sup> The idea of the divine creator is the regulative ideal which, at the end of our empirical inquiries into a natural order, is posited to be at the origin of such an order.<sup>12</sup> The divine creator is thought, for the sake of the explanatory coherence of empirical laws, to originate existence:

For it is in the light of this idea of a creative reason that we so guide the empirical employment of *our* reason as to secure its

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<sup>7</sup> CPR A663 / B691.

<sup>8</sup> CPR A654 / B682. See also CJ Ak. 185.

<sup>9</sup> CPR A674-5 / B702-3.

<sup>10</sup> CPR A651-2 / B679-80.

<sup>11</sup> See the first and second introductions to the *Critique of Judgment*. See also chapters 7, 8, and 10 of Buchdahl's *Kant and the Dynamics of Reason*, and p. 475ff of his *Metaphysics and the Philosophy of Science*. Susan Neiman argues along similar lines in chapter 2 of *The Unity of Reason* (Oxford: OUP, 1994).

<sup>12</sup> CPR A671 / B699 ff.

greatest possible extension — that is, by viewing all objects *as if* they drew their origin from such an archetype.<sup>13</sup>

While the idea of the divine creator guides reason from the start, it is only at the *end* of scientific inquiry that the idea of “a supreme purposive being” can be posited “as the ground of all things”, to lend completeness to a system whose completeness cannot be empirically attained.<sup>14</sup> Kant is also clear that the idea of the divine creator has only a regulative use as a rule for the *empirical* employment of reason, to secure the greatest possible systematic unity of the world.<sup>15</sup> Thus the idea of the divine creator is the *explanatory* ground for the necessary *empirical* lawlikeness of the order of nature.

In contrast to reason’s activity in constructing a systematic order of nature which allows for empirical natural science, the pure understanding constructs “nature in general” and founds a *pure* natural science.<sup>16</sup> In pure natural science, general natural laws are not empirically determined but are cognized *a priori* for application to possible experience. These are the lawlike principles of substance, causality, coexistence, and so on that Kant sets out to prove in the Analytic of Principles, and which make nature *transcendentally* possible. These principles provide a *formal* unity to experience, but they do not provide a unity of empirical content. Reason’s principle of systematic unity is not needed in this context: there is no need (at this stage) to unify empirical nature, but only to establish the conditions for the possibility of the experience of nature in general. Thus the idea of the divine creator need not be brought in as putative existential ground. Of course, the divine creator is a necessary idea for comprehending an empirical system of nature, so eventually it *must* be brought in; as Susan Neiman has pointed out, experience deprived of reason’s regulative principles would be, for Kant, tantamount to animal or infantile experience.<sup>17</sup> At the stage of knowledge where reason is forestalled — the transcendental stage of establishing what Kant calls “nature in general” — the regulative idea of an existential ground is as yet

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<sup>13</sup> CPR A672-3 / B700-1.

<sup>14</sup> CPR A692-3 / B720-1

<sup>15</sup> CPR A686 / B714.

<sup>16</sup> CPR B165.

<sup>17</sup> Neiman 58-9.

unnecessary. From the perspective of pure natural science, the existential ground is to be found *a priori* within nature insofar as nature conforms to transcendental laws.

This is suggested in the Analytic of Principles, and confirmed by Kant's *Metaphysical Foundations of Natural Science*. This latter is Kant's "special" metaphysics of nature, a system of natural science governed by the *a priori* principles of general metaphysics as laid out in the Analytic, but taking into account the empirical concept of its object. While the Analytic "treat[s] of the laws which make possible the concept of a nature in general even without reference to any determinate object of experience", special metaphysics

occupies itself with the special nature of this or that kind of things, of which an empirical concept is given in such a way that besides what lies in this concept, no other empirical principle is needed for cognizing the things. For example, it lays the empirical concept of a matter or of a thinking being at its foundation and searches the range of cognition of which reason is *a priori* capable regarding these objects. It is then not a general but a special metaphysical natural science (physics and psychology), in which the aforementioned transcendental principles are applied to the two species of sense-objects.<sup>18</sup>

Special metaphysical natural science remains a pure natural science, for it does not make use of any particular experiences; it investigates empirical *concepts*, and specifically the empirical concept of matter.<sup>19</sup> The focus here is *not* on building up natural science through the *ordering* of experiences by reason. Rather, Kant's concern is to show how the understanding's application of the transcendental principles to sense-objects *in general* makes possible the empirical concept of matter, and thus makes possible certain *a priori* laws of matter.

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<sup>18</sup> Immanuel Kant, *Metaphysical Foundations of Natural Science*, trans. James W. Ellington, in Kant, *Philosophy of Material Nature* (Indianapolis: Hackett, 1985), Ak. 469-70. Hereafter abbreviated to *MFNS*.

<sup>19</sup> *MFNS* Ak. 472.

Matter, defined most generally, is “that in appearance which corresponds to sensation”.<sup>20</sup> So the concept of matter cannot be a pure concept, but must be empirical: it is valid only because there *is* something corresponding to sensation. Yet the concept of matter is not *derived* from multiple experiences of material bodies. Rather, the concept of matter is “constructed”; its intuition can be generated *a priori* like a geometrical figure, given the right conditions.<sup>21</sup> To determine those conditions under which construction of the concept of matter is possible, an analysis of the concept of matter must be undertaken. The metaphysical foundations of natural science, then, are the conceptual conditions of constructing the concept of matter. The foundations will turn out to be a set of concepts which accord with the general *a priori* conditions of experience. These foundational concepts make the concept of matter epistemically possible (i.e., constructable *a priori*). With the impossibility of experiencing matter *as such*, these concepts are as close as we can get, within the epistemic system, to understanding the material ground of existence. These concepts are not brought in for the sake of the explanatory coherence of a system of nature as a whole, but are assumed in order to explain what matter is and how it works, according to the way in which we experience it. We will see how, from out of the *Analytic of Principles*, the concepts by which we may think about the ultimate character of matter become apparent.

In summary, Kant gives us three ways in which nature is determined for the sake of natural science:

1. Nature is transcendently ordered as “nature in general” by the principles of understanding, such that experience is possible.
2. Nature is metaphysically grounded with respect to its material conditions of possibility through the construction of the concept of matter, such that a special natural science is possible.
3. Nature is ordered according to reason’s regulative principles such that it can be viewed as a purposive empirical system.

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<sup>20</sup> *CPR* A19 / B33.

<sup>21</sup> The fact that the concept of matter is empirical is difficult to reconcile with the fact that it is not derived from experience but is exhibited *a priori*. I will not discuss this particular problem further here, but for a useful discussion see Friedman, “Matter and Motion in the *Metaphysical Foundations* and the *First Critique*”, in Watkins (ed.), 53-69.

The first is the pure natural science of the Transcendental Analytic and is concerned with transcendental conditions of experience. The Analytic yields a lawlike “nature in general” which in *Metaphysical Foundations* is specified through the empirical concept of matter. The concept of matter must be constructed through still more basic concepts: these fundamental concepts are determined as the “metaphysical hardcore” on the basis of which specific material laws can be formulated in accordance with the transcendental principles. Although these are empirical concepts, they are analyzed *a priori*, without reference to any particular experience. Only the third determination of nature operates on nature as experienced: empirical nature is ordered according to reason’s regulative principles, its systematicity ultimately explained by reference to the idea of God.

As I have suggested, we have no immediate need for God if, *per impossibile*, we stick to pure natural science, which, within the realm of appearances, assumes a purely material ground of existence. Understanding provides the formal conditions of possibility of a knowable world, and in so doing, allows for the concepts of the material conditions of nature to emerge. The material conditions, of course, can only be comprehended within the structure of formal conditions, making the possibility of reaching a non-formalized existential ground problematic. Michael Bowles calls this the impasse of matter: “without form we cannot approach matter, but with form, matter as such is never encountered”.<sup>22</sup> Kant’s description of existence, then, will necessarily be phenomenal and conceptualized. Existence can be described in terms of the concept of the conflict of the fundamental forces of matter. This concept is not derived from experience, but from an analysis of the concept of matter; it emerges only from the epistemic framework of concepts and principles. The epistemic framework, however, requires that existence be thought in terms of force; dynamic existence is a condition for the possibility of knowledge, though dynamic existence can only be made manifest through knowledge-conditions.

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<sup>22</sup> Michael Bowles, “Kant and the Provocation of Matter”, in Rehberg and Jones (eds.), 1-18, here at p. 15.



## 2.2 The Mathematical Principles: constructing presence

I will begin with the second chapter of the *Analytic of Principles*, entitled “System of all Principles of Pure Understanding.” This is a system of the understanding’s principles “according to which everything that can be presented to us as an object must conform to rules”.<sup>23</sup> It outlines the *a priori* rules of the understanding according to which particular things can be experienced. Following the division of categories, the system comprises a fourfold of principles which relate to quantity, quality, relation and modality. The first two divisions contain “mathematical” rules which govern our intuition of an appearance, while the latter two divisions contain “dynamical” rules which are said to govern the existence of an appearance. The rules of the first type are constitutive principles, constituting intuition in advance of perception. But the principles of the latter type are post-perceptual: they “seek to bring the *existence* of appearances under rules *a priori*”. However, “since existence cannot be constructed, the [dynamical] principles can apply only to the relations of existence, and can yield only *regulative* principles”.<sup>24</sup> Dynamical principles constitute experience by regulating existence, and thus are regulative in a different sense than the ideas of reason.

The notion of construction is important here. Kant defines it much later, in the section entitled *The Discipline of Pure Reason*, where he differentiates philosophical from mathematical knowledge:

*Philosophical* knowledge is the *knowledge gained by reason from concepts*; mathematical knowledge is the knowledge gained by reason from the *construction* of concepts. To *construct* a concept means to exhibit *a priori* the intuition which corresponds to the concept. For the construction of a concept we therefore need a *non-empirical* intuition. The latter 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

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<sup>23</sup> CPR A158-9 / B197-8.

validity for all possible intuitions which fall under the same concept.<sup>25</sup>

Kant uses the example of constructing a triangle: from the mere concept of a triangle, a non-empirical intuition can be generated, either mentally or physically (on paper, e.g.). Yet this procedure cannot be followed in the case of qualities, which must be taken from experience. Similarly, construction cannot apply to the concept of existence: the intuition of existence can only be empirical. This is what Kant means when he says at A179 / B221-2 that existence cannot be constructed: because existence must be given in an empirical intuition, the dynamical principles cannot constitute existence but only regulate it. The existence of things simply cannot be transcendently constituted; it must be given by nature to experience. Dynamical principles can only govern our experience of the relations of existing things in time. These rules are by this limitation no less constitutive of possible experience, and no less certain *a priori*: they tell us how a unity of experience may arise from perception.<sup>26</sup>

The mathematical principles, by contrast — the Axioms of Intuition and the Anticipations of Perception — *are* constitutive, but only of intuition: as with all principles of understanding, they do not constitute the object itself. The mathematical principles establish that intuitions must have some degree of spatio-temporal reality: what amounts to a transcendental principle of *presence*. The principle governing the axioms is that all intuitions are extensive magnitudes.<sup>27</sup> This is to say that all appearances take up some determinate space and time and that their intuition is successive, where the representation of parts makes possible the representation of the whole. That is, they have a spatiality which is apprehended temporally. The principle governing the anticipations is that in all appearances, the *real* of sensation has intensive magnitude.<sup>28</sup> That is, the qualitative content that is sensible in an appearance has some quantitative degree

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<sup>24</sup> CPR A179 / B221-2. On this distinction, see Brent Adkins, “The Satisfaction of Reason: the Mathematical/Dynamical Distinction in the *Critique of Pure Reason*”, *Kantian Review* 3 (1999), 64-80.

<sup>25</sup> CPR A713 / B741.

<sup>26</sup> CPR A180 / B222.

<sup>27</sup> CPR A162 / B202.

<sup>28</sup> CPR A166 / B207.

which, however small, cannot vanish into nothingness. While the specific quality and degree (of redness, heat, etc.) can only be gathered from experience, “the property of possessing a degree can be known *a priori*”.<sup>29</sup> So we employ an axiom of spatio-temporal quantity and anticipate that an intuition will have some degree of its qualities. We thus generate a magnitude: an appearance which endures spatially in time and possesses a degree of reality.<sup>30</sup> The fact that appearances have spatio-temporality and some qualitative degree is known *a priori*, such that intuitions can be constructed non-empirically by the imagination like geometrical figures. This is the axiomatic and anticipatory nature of these principles: appearances are anticipated, before experience, to have these quantitative characteristics which not only make intuition possible, but also make pure mathematics applicable to objects of experience.<sup>31</sup>

Appearances *qua* magnitudes are suitable for apprehension by a faculty that works successively like the imagination itself; that is, they are intuited successively in both time and degree. This means that the minimal requirements for intuition are that an appearance last a minimal amount of time and that it have a minimal qualitative degree, though there is no specific minimal limit. Kant

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<sup>29</sup> CPR A176 / B218. In other words, Kant says here that constitutive principles cannot be determinative, and that the determinate measure of any degree can only be known *a posteriori*. In his *Kant and the Claims of Knowledge* (Cambridge: CUP, 1987), Paul Guyer provides an analysis of the supposed inconsistencies of the mathematical-dynamic distinction. Guyer’s critique of Kant’s distinction is perhaps based on his mistaken belief that constitutive principles must be determinate and regulative principles indeterminate, as well as his fundamental misunderstanding of Kant’s use of the term “reality” (183-90). Guyer argues (1) that the mathematical principles cannot be constitutive because they are indeterminate; and (2) that the principle of intensive magnitude (reality) makes a claim about the existence, rather than the intuition, of appearances. In response to both these points I argue that the constitutive principles do not impose determinate measures onto appearances, but rather constitute appearances *a priori* as *determinately measurable*. This means that (1) constitutive principles are not themselves determinate principles, so there is no contradiction in saying that mathematical principles are constitutive; (2) the principle of intensive magnitude constitutes appearances *a priori* as having a measurable degree of reality, so there is no claim being made about the existence of any determinate thing. Admittedly, Kant’s example, which Guyer cites, that “I can determine *a priori*, that is, can construct, the degree of sensations of sunlight by combining some 200,000 illuminations of the moon” (A178-9 / B221) could lead one to think that Kant suggests that we know determinate numbers *a priori* by virtue of the mathematical principles. But the point here is that *given* a determinate quantity, another determinate quantity can be constructed *a priori*, according to the principle which constitutes our intuitions as measurable in general. That is, we can construct a non-empirical intuition of the degree of sunlight, given the right mathematical information, whether or not we have ever had any experience of it. The principle itself does not determine the actual quantity, but only determines that the intuition is quantitative.

<sup>30</sup> It is the productive imagination that generates or “produces” magnitudes. CPR A163 / B204; cf. A170 / B211; A95-131.

<sup>31</sup> CPR A165 / B206.

makes clear that both the duration and the reality of an appearance can be infinitely small: “no part of [a magnitude] is the smallest possible, that is, [...] no part is simple”.<sup>32</sup> The passing of an appearance from presence to absence is no mere dwindling away into nothingness, but entails the impossibility of intuition: “no perception, and consequently no experience, is possible that could prove [...] a complete absence of all reality in the appearance”.<sup>33</sup> In other words, the principles which constitute intuition and anticipate perception, taken together, say that an appearance can be neither quantitatively nor qualitatively nothing. Thus the minimum requirement for intuition is that there be presence, where presence denotes a degree of reality enduring in space. All appearances are anticipated *a priori* to have presence. Presence as a transcendental principle is constitutive of intuition — meaning that presence is only a property of things insofar as it is a principle of understanding. The cognitive faculties have a comportment towards presence, such that everything perceivable must be pre-determined as spatially enduring reality.

Kant does not specifically align the mathematical principles with presence in the *Critique*. This is because presence is, as I outline below, an empirical concept of *special* metaphysics. However, when explaining the oddness of the fact that the understanding anticipates what it has not yet experienced, he does say that “the real [...] as opposed to negation = 0, only represents something whose concept in itself contains a being [*ein Sein*], and does not signify anything except the synthesis in an empirical consciousness in general”.<sup>34</sup> That is, while quality in sensation can only be established empirically, the property of possessing a degree of a quality can be known *a priori*, and the concept of something represented by the real (i.e. qualitateness in general) must contain a being rather than a nothing. Qualitateness in general, and the concept of “a being” which accompanies it, signify empirical synthesis in general, and not the synthesis of particular sensations. Kant’s implication seems to be that whatever is anticipated in this way

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<sup>32</sup> CPR A169 / B211.

<sup>33</sup> CPR A172 / B214.

<sup>34</sup> CPR A175-6 / B217. This quotation is taken from the Paul Guyer and Allen W. Wood translation (Cambridge: CUP 1997). Kemp Smith unhelpfully translates *ein Sein* as *being*, which would make this sentence run contrary to Kant’s thesis about being.

is present, not-nothing, and yet there is no determinate empirical synthesis at work. There is merely the anticipation of presence.

Kant explicitly aligns presence with the mathematical principles in his *Metaphysical Foundations of Natural Science*, which indicates that presence for Kant is a concept of special and not general metaphysics. In the section which corresponds to the category of quantity (and thus specifically to the principle of extensive magnitude), called the Metaphysical Foundations of Phoronomy, matter is defined as the movable in space. Kant says not only that appearances must have some spatio-temporal magnitude, but specifically that matter must have some velocity.<sup>35</sup> Matter moves through space in time; even when it is ostensibly at rest, matter is in motion, pulled by gravitational force. Kant says that rest cannot be explicated by lack of motion,

but must be explicated by permanent presence [*die beharrliche Gegenwart*] in the same place. Since this concept can be constructed by the representation of a motion with infinitely small velocity throughout a finite time, it can therefore be used for the subsequent application of mathematics to natural science.<sup>36</sup>

Permanent presence in the same place is the minimal definition of matter: a spatially extended thing that has an infinitely small velocity in a finite time. Every material thing must, at the very least, be definable as permanent presence in the same place. This *empirical* concept of permanent presence can itself be constructed, non-empirically intuited. Our ability to construct mathematically an intuition of “infinitely small velocity in a finite time” allows us to think about nature in terms of the quantity of motions, that is, to apply mathematics to natural science. Kant’s association of presence with motion suggests that even if matter is permanent presence, it is not static, self-identical substance; the anticipation of things as permanent presence is the anticipation of motion in a limited time and space.

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<sup>35</sup> *MFNS* Ak. 480ff.

<sup>36</sup> *MFNS* Ak. 486.

While special metaphysics tells us that matter must be considered to have some quantity of motion, general metaphysics tells us that appearances must be anticipated as having some quantity of spatio-temporality and some degree of reality. Quantity and quality are part of the formal structure of appearances supplied by the understanding, making experience possible. The subject's anticipatory comportment towards appearances has a mathematical character: the comportment of human consciousness towards presence is also a comportment towards measurability. Appearances are anticipated to be measurable in their extension, duration, and degree. On Heidegger's interpretation, this means that human consciousness, with regard to natural bodies, is attuned in advance to the mathematical, which leads to the reception of things as instrumental, present-at-hand and ready for use. What Heidegger calls "the mathematical" is, for him, at the ground of the modern scientific and metaphysical understanding of the thingness of things.<sup>37</sup> Its concept is not exhausted by mathematics or number, but refers broadly to learning in the Socratic sense: it refers to that which we already know. With numbers, the most familiar form of the mathematical, we take cognizance of something that is not created from any *thing*, but is held out in advance as something we already have.

The *mathemata*, the mathematical, is that "about" things which we really already know. Therefore we do not first get it out of things, but, in a certain way, we bring it already with us. [...] The mathematical is that evident aspect of things within which we are always already moving and according to which we experience them as things at all, and as such things. The mathematical is this fundamental position we take toward things by which we take up things as already given to us, and as they should be given.<sup>38</sup>

The mathematical characterizes modern science and not Aristotelian or Scholastic science: with Aristotle, the basis for those things we know about

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<sup>37</sup> *WT* 190ff. The text is based on a lecture given in 1935-6.

<sup>38</sup> *WT* 74-5.

natural bodies emerges from the essence of nature itself.<sup>39</sup> For Heidegger the mathematical project begins with a fundamental change in the scientific attitude towards nature that comes with Newton's first law of motion, the law of inertia. "Nature is no longer the *inner* principle out of which the motion of the body follows; rather, nature is the mode of the variety of the changing relative positions of bodies".<sup>40</sup> Newton's first law states that "a body left to itself moves uniformly in a straight line": it speaks of something which cannot be experienced, which does not exist as such. The lawlike nature of the principle requires it to speak not only of *a body in general*, but of *a body as we will never be able to experience it*:

Where is it? There is no such body. There is also no experiment which could ever bring such a body to direct perception. But modern science [...] has such a law at its apex. This law speaks of a thing that does not exist. It demands a fundamental representation of things which contradict the ordinary.

The mathematical is based on such a claim, i.e. the application of a determination of the thing, which is not experientially created out of the thing and yet lies at the base of every determination of the things, making them possible and making room for them.<sup>41</sup>

Heidegger's description of the Newtonian-mathematical project is, of course, also a description of Kantian objectivity: a principle that empirical things are determined non-empirically lies at the basis of every determination of every thing. The notion that the lawfulness of nature is in advance of the essence of nature, and in advance of the experience of nature, equally characterizes modern science and modern metaphysics for Heidegger.

Thus Heidegger describes the mathematical as "a project of thingness which skips over the things"; a project within which things show themselves based on their advance determination as lawful.<sup>42</sup> The "blueprint" of the structure of every

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<sup>39</sup> *HT* 84-5.

<sup>40</sup> *HT* 88. Heidegger notes that Newton is anticipated by Galileo with respect to the change from "essential" nature to "axiomatic" nature.

<sup>41</sup> *HT* 89.

<sup>42</sup> *HT* 92.

thing and its relations is given in advance, determining the mode of experience. Kant's highest principle of synthetic judgments, that "every object stands under the necessary conditions of synthetic unity of the manifold of intuition in a possible experience",<sup>43</sup> expresses the mathematical nature of our relation to an object: the inner possibility of the object is co-determined out of the possibility of the relation to it, and the nature of the relation to the object must be uncovered.<sup>44</sup> With Kant's axioms and anticipations, the faculties "reach out" to things in order to establish them as appearances, to give them their *thingness*. The thingness of things is specifically made possible by establishing their measurability in advance. In this sense, for Heidegger, objectivity is defined by the mathematical, and subjectivity is defined by a mathematical reaching-out.<sup>45</sup> The subject-object relation, which on Heidegger's account *discloses* the being of things, has developed a mathematical character through modern metaphysics.

We can see how Heidegger can use this charge to further his general contention that Kant maintains an "ontology of the extant". The mathematical character of experience, on Heidegger's view, means that *being* is determined not only as produced presence, but as instrumental: presence that is produced *for use*. For Heidegger, being is determined as *vorhanden* in Kant's system because the form of things is anticipated. Certainly, it is clear that no *object* within Kant's system can be thought in a non-mathematical way, if the mathematical means that which is given to cognition in advance of experience. The objectivity of every object is anticipated, the intuition of it constituted, the existence of it regulated, by the synthetic *a priori* principles of understanding. The understanding does have a "mathematical" comportment towards things, which, as we have seen, can also be described as a comportment towards presence. Every object of experience is determined *as present* through the axioms and anticipations. But the understanding's comportment, and the fact that objects of experience are determined as present, do not mean that Kant understands *being* in terms of presence or instrumentality. If, as I suggest, we understand being as the original relation between subject and object that first makes possible the determination of

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<sup>43</sup> CPR A158 / B197.

<sup>44</sup> WT 182.

<sup>45</sup> WT 220, 242-3.



objects of experience, then being is not *equivalent* to presence; rather, it makes the presence of things possible. In other words, the relation of being makes it possible that things appear *as* present.

I have also suggested that things are not determined as produced in Kant's system, but as *productive*. We will see how the productivity of nature is specified in the following sections. Heidegger is wrong to claim that Kant reduces nature to produced, instrumental presence, and to claim that this presence is equivalent to being. On the contrary, nature is determined as productive, and it is the relation of being that first makes this determination possible.

### 2.3 Substance: transcendental and material

We move on now to Kant's dynamical principles, principles which order existing things in terms of their relations. While the mathematical principles constitute all appearances in advance to be measurable and thereby justify the application of mathematics to appearances, the dynamical principles regulate appearances according to their relations, and allow for the application of dynamical laws. Traditionally, commentators have argued that with the dynamical principles Kant attempts to justify the application of Newtonian physics to appearances by setting out its metaphysical presuppositions. Other commentators — most significantly Gerd Buchdahl — have noted that there is a considerable “looseness of fit” between Newtonian science and Kant's *Analytic*.<sup>46</sup> Buchdahl argues that the *Analytic* purports to establish only the experiential notion of an objective nature in general, whereas it is the *Metaphysical Foundations of Natural Science* that investigates the possibility of material nature as conforming to Newtonian laws.<sup>47</sup> Certainly the synthetic *a priori* principles of the analogies order appearances such that they can be objects of natural science, but only in the most general sense: appearances are ordered such that they can be objects of experience

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<sup>46</sup> This is particularly evident in Kant's rejection of atomism. See *KDR* ch. 10 and 11, and Neiman, ch. 2. For a view that Kant attempts to justify Newtonian principles along with a rigorous examination of Kant's reliance on these specific principles, see ch. 3 and 4 of Friedman's *Kant and the Exact Sciences*.

<sup>47</sup> *KDR* 222-3.

at all. In the *Prolegomena*, Kant speaks of a physiological “system of nature” that is constituted by the Analytic’s principles. But he makes clear that this system refers to the pre-empirical notion of nature in general, and *not* to the special metaphysical notion of material nature. (Still less can this system be equated with the empirical *order* of nature which, as I suggested earlier, is generated by reason and its regulative principles.) He says:

[...] the principles by means of which all appearances are subsumed under these [transcendental] concepts constitute a physiological system, that is, a system of nature, which precedes all empirical cognition of nature, first makes it possible, and hence may in strictness be called the universal and pure natural science.<sup>48</sup>

We have already seen in what sense pure natural science is mathematical. It is concerned with that which precedes empirical cognition of nature. The Analytic seeks to establish this pre-empirical notion of “*nature in general*, that is, [...] the conformity to law of all appearances in space and time”.<sup>49</sup>

The dynamical principles are the analogies of experience, which are regulative principles for understanding the relations between appearances, and the postulates of empirical thought, which regulate the relation of appearances to cognition. These principles, though regulative of intuitions, are constitutive of experience; they order appearances in necessary time sequences, without which we would have merely a collection of perceptions. Intuition, through its *a priori* principles, gives us presence as not-nothing, as spatio-temporality in general. Experience, however, goes beyond the intuition of presence; it gives us *existing* appearances in spatio-temporal relations which are determined by synthetic *a priori* principles. Perceptions do not carry with them any objective time-order; this must be determined through principles which regulate the temporal order of existing appearances and thereby unify the perceptions into experience. The analogies, then, allow us to construct a time-order which in turn allows for our judgment of

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<sup>48</sup> Immanuel Kant, *Prolegomena to any Future Metaphysics*, trans. Paul Carus (revised by James W. Ellington), in Kant, *Philosophy of Material Nature*, §23, Ak. 306.

<sup>49</sup> *CPR* B165.

the existence of as-yet unexperienced appearances. Explaining what he means by the term analogy, Kant says:

[...] from three given members we can obtain *a priori* knowledge only of the relation to a fourth, not of the fourth member itself. The relation yields, however, a rule for seeking the fourth member in experience, and a mark whereby it can be detected. An analogy of experience is, therefore, only a rule according to which a unity of experience may arise from perception. [...] It is not a principle constitutive of the objects, that is, of the appearances, but only regulative.<sup>50</sup>

Evidently the analogies do not have any constitutive power over objects themselves; they *regulate* objects (in a time sequence) by *constituting* a unified experience of temporal relations amongst appearances. Existence itself is dynamically regulated in that it is ordered into the dynamical relations of inherence, consequence, and composition, without which order existence could not be experienced. Yet as much as experience requires the dynamical principles, the dynamical principles require experience: unlike the mathematical principles, which can construct intuitions *a priori*, the dynamical principles, while themselves *a priori*, require some perception to act upon. The material existence of nature is necessary for the employment of the dynamical principles. The dynamical principles indicate this necessity; the epistemic system which constitutes “nature in general” points to an existential ground of material nature.

Such indications are particularly strong in the first and second analogies. The first analogy, the principle of the permanence of substance, says that for the possibility of experience permanent substance must be viewed as the ground of all existing things, their changes and determinations. Its principle says specifically: “In all change of appearances substance is permanent; its quantum in nature is neither increased nor diminished”.<sup>51</sup> Kant is often wrongly accused of eliding this

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<sup>50</sup> CPR A180 / B222.

<sup>51</sup> CPR A182 / B224.

principle with the Newtonian principle of the conservation of mass.<sup>52</sup> This objection, as Buchdahl and Allison have also pointed out, fails to recognize the distinction between the transcendental employment of the category of substance, which works to constitute the formal notion of the object of experience in general, and the material employment of an empirical concept of substance, which works towards the construction of the concept of matter.<sup>53</sup> It is essential to recognize this distinction, and to establish in which sense Kant uses the term “substance” in any given case. I will argue that in the first analogy, Kant’s primary concern is to establish the conditions of possible experience in general, and thus he explains only the formal necessity of a transcendental principle of permanent substance. In so doing, he also indicates the material necessity of an empirical concept of substance. But this necessity is only hinted at. We must avoid the pitfall of assuming that Kant is talking about material substance in the first analogy — an easy assumption to make, given Kant’s imprecise phrasing.

Because analogies are not constitutive of objects, but are only rules “according to which a unity of experience may arise from perception”, permanent substance cannot be said to inhere in objects themselves.<sup>54</sup> Rather, as Kant says, “permanence is a necessary condition under which alone appearances are determinable as things or objects in a possible experience”.<sup>55</sup> Appearances are *determinable* as things through the principle of permanence, without which they would be mere intuited presence. Through this regulative principle we experience the change, coming-to-be and ceasing-to-be of appearances, as well as their duration: such events can be experienced only on the assumption of a permanent, unchanging substratum which ensures the constancy of an object through its changes of state. Descartes’ example of melting wax is suggestive here: for Kant, if we did not experience the wax as having a permanent substratum, we would have no experience of its two states as being in any way connected.<sup>56</sup> The two states of the wax are intuited in time, and thus in a subjective succession of

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<sup>52</sup> See, e.g., P.F. Strawson, *The Bounds of Sense* (London: Routledge, 1966), 128ff.

<sup>53</sup> See Buchdahl, *Metaphysics and the Philosophy of Science*, 643; Henry E. Allison, *Kant's Transcendental Idealism* (New Haven: Yale UP, 1983), 210.

<sup>54</sup> *CPR* A180 / B222-3.

<sup>55</sup> *CPR* A189 / B232.

<sup>56</sup> Cf. René Descartes, *Meditations on First Philosophy*, trans. and ed. John Cottingham (Cambridge: CUP, 1996), 20.

apprehension. But from mere perception we have no reason to think (a) that the two states are states of a single determinate thing; or (b) that the two states occur objectively in the order of our apprehension. Yet we do experience the wax as remaining the same wax throughout, and the succession of its states as occurring in a necessary order.

We do, in fact, experience duration and succession, but these aspects of experience cannot have been derived from experience, since time, as the permanent form of inner intuition, cannot itself be derived from experience. Consequently, Kant says, “there must be found in the objects of perception, that is, in the appearances, the substratum which represents time in general”.<sup>57</sup> This statement is easy to misunderstand, for it could be taken to mean that we “find” something materially permanent and spatial that stands for (“represents”) time. But this cannot be what Kant means, for substance is a pure concept of understanding, and permanence is its *a priori* schematized *principle*. What Kant means is that the permanence *we experience all objects to have* must be supplied by an *a priori* principle, without which experience as we have it would not be possible. Permanent substance must be *presupposed* as a transcendental condition of experience, but it is not encountered directly in experience as material presence. When Kant says that permanence is “found” in objects of perception, he means that we experience appearances *as* permanent, and the transcendental principle is the condition of possibility of this experience. Appearances simply could not exist for us if they were not apprehended as abiding substrata for change. Kant is *not* saying that in objects of perception we find a material substratum that represents time spatially; at least, he is not saying this yet.

Similarly, Kant is not saying that the permanence of something imperceptible (time) is spatially represented by something perceptible (substance), as Guyer claims.<sup>58</sup> This position mistakenly ascribes material substantiality where Kant is speaking of the transcendental *principle* of substance. Indeed, if substance were considered a material substratum, Guyer’s criticism would hold. But substance here is an ingredient of experience as a transcendental presupposition, not as material presence. Permanent substance “represents” time in general because

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<sup>57</sup> CPR B225.

<sup>58</sup> Guyer, *Kant and the Claims of Knowledge*, 219; see also Findlay 168.

permanence is *the transcendental element of experience* that allows us to represent time empirically — that is, it allows us to perceive time as applying to objects in its three modes of relation. Furthermore, “represent” must be understood in the Kantian sense, as the way things are brought to apprehension by a subject; not in the sense — which Guyer’s use suggests — in which a member of parliament represents (i.e. stands in for) her constituents. To rephrase Kant in a way that circumvents Guyer’s criticism: permanent substance is an *a priori* schematized category which, employed as a transcendental principle in experience, allows us to bring time empirically to apprehension. This is why Kant says:

In other words, the permanent is the *substratum* of the empirical representation of time itself; in it alone is any determination of time possible. Permanence, as the abiding correlate of all existence of appearances, of all change and of all concomitance, expresses time in general.<sup>59</sup>

Note that Kant speaks of permanence as the *correlate* of the existence of appearances, and not as the material basis or ultimate subject of existence. Only as the transcendental correlate of existence can permanence bring time empirically to apprehension, thus expressing time in general. If permanence were material, its relation to time would be contingent, for the consistency of our “experienced time” would depend on whether or not we found permanence in whatever we experienced. When we cease to think of transcendental substance as the material basis of existence, Guyer’s objection is significantly mitigated. As Kant says,

All existence and all change in time *have thus to be viewed* as simply a mode of the existence of that which remains and persists. [...] This permanence is [...] simply the mode in which we represent to ourselves the existence of things in the [field of] appearance.<sup>60</sup>

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<sup>59</sup> CPR A183 / B226.

<sup>60</sup> CPR A183 / B227, emphasis added; A186 / B229. Kant makes this point even more assertively in a later passage, where he says that “substance in the [field of] *appearance* [...] is not an absolute

I believe that Kant's further claims in the first analogy must similarly be analyzed in terms of their regulative status with respect to appearances. All that is constituted here is experience; *no material thing* is said to be permanent, either absolutely or relatively.<sup>61</sup> Experience is possible only if appearances are viewed as including permanent substance, and if we view permanent substance as something which does not itself come to be or cease to be. Whatever alters in appearance is not viewed as the substantial in the appearance. What we view as substantial in appearance underlies all determinations of time in general: if substances were viewed as coming to be and ceasing to be, as Kant says, "the one condition of the empirical unity of time would be removed".<sup>62</sup> We would simply not be able to experience duration or succession objectively if our principle of substantiality allowed us to think of substances as themselves coming to be and ceasing to be. If our principle did allow us to think that, Kant says, we would experience existence in two parallel streams of time: the timeline of alterations which would happen in "empirical" time, and the timeline of substances which would be related to an "empty" time. Kant denied the possibility of experiencing empty time in the *Transcendental Aesthetic*.<sup>63</sup> So we are left with a transcendental principle stating that we must view all appearances as having a substantial element which neither comes to be nor ceases to be. In contrast to commentators such as Strawson, I can see no evidence of any intention on Kant's part to prove Newton's law of conservation of mass (other than the admittedly misleading wording of the principle itself in the B edition). Kant's attempt at just such a proof in *Metaphysical Foundations* makes it even clearer that the law would have no place in the *Analytic*. In fact Kant specifies in *Metaphysical Foundations* that the Newtonian law applies only to "what is substance in matter": Kant proposes a law

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subject, but only an abiding image [*Bild*] of sensibility; it is nothing at all save as an intuition, in which unconditionedness is never to be met with" (A525-6 / B553-4).

<sup>61</sup> I refer to the ongoing argument over whether Kant succeeds in arguing for absolute or relative permanence of substance, initiated by Jonathan Bennett (*Kant's Analytic* [Cambridge: CUP, 1966]). I have to say that I am baffled by the persistence of this line of questioning. To my mind this question is simply irrelevant to what Kant is trying to prove in this part of the text, which is simply that a certain synthetic *a priori* principle allows us to experience duration and change. The purely *logical* concept of an "absolute subject which is never treated as an accident" should never be applied to objects, but only to concepts in logical relation.

<sup>62</sup> CPR A188 / B231.

<sup>63</sup> CPR A32-3 / B49; see also the first antinomy, A426-35 / B454-63.

that applies to *matter* on the basis of the transcendental principle of substance that applies to appearances in general.<sup>64</sup> The first analogy is a necessary principle of *general* metaphysics which allows for the law of conservation of mass to be foundational for *special* metaphysics.

Let me stress once again the *transcendental* nature of substance as it is discussed in the first analogy. This is in fact the second of three uses that Kant makes of the term “substance”. The first, which I will not discuss here, is the *pure logical* concept of substance, which defines substance as that which can be thought only as subject, and never as predicate of something else. This purely logical and unschematized concept of substance should not be confused with the transcendental principle: Kant himself says of the pure logical concept of substance that he can put it to no use, “for it tells me nothing as to the nature of that which is thus to be viewed as primary subject”.<sup>65</sup> This pure logical concept is schematized to give the transcendental principle of substance that applies to objects of experience, which I have been discussing. Kant’s third use for the term “substance”, which will be central to what follows, is to refer to empirical, material substance. Material substance is also called *substantia phaenomenon*, and is equivalent to matter for Kant.

Many commentators object to so-called inconsistencies in Kant’s text on the basis of failing to note the difference between transcendental and empirical substance.<sup>66</sup> This important difference is not obvious in the *Critique*, but it is there. At the end of the first analogy, Kant indicates that the principle of permanence has an empirical criterion:

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<sup>64</sup> *MFNS* Ak. 541-2. It should be added that Kant’s attempted proof in *MFNS* is strictly mechanical, and makes no reference to time.

<sup>65</sup> See *CPR* A147 / B186-7. Rae Langton draws attention to this distinction, arguing that the pure concept applies to what is truly substantial, the thing in itself, of which non-substantial matter is a property. I admire the originality of Langton’s argument but find that like Guyer and Allison, she reifies substance without paying attention to the transcendental nature of the principle and the merely logical nature of the pure concept. In arguing that pure logical concepts pertain to the thing in itself, Langton interprets Kant’s thing in itself as a Leibnizian monad. See ch. 3 of Rae Langton, *Kantian Humility* (Oxford: OUP, 1998).

<sup>66</sup> Prominent examples are Guyer and Strawson. Strawson (128-9) proposes that Kant succumbed to “temptation to identify whatever he succeeded in establishing as necessary conditions of the possibility of an objective world with what he already conceived to be the fundamental, unquestionable assumptions of physical science”(!). Allison (*Kant’s Transcendental Idealism*, ch. 9) does recognize the difference between transcendental and material explanations in Kant’s texts, but nevertheless maintains that in the first analogy Kant argues for things having some absolutely permanent substratum. The inconsistency in Allison’s account is puzzling.



Permanence is thus a necessary condition under which alone appearances are determinable as things or objects in a possible experience. We shall have occasion in what follows to make such observations as may seem necessary in regard to the empirical criterion of this necessary permanence — the criterion, consequently, of the substantiality of appearances.<sup>67</sup>

Kant suggests here that something empirical is criterial of the transcendental principle of permanent substance. Some element of appearance must be viewed as substantial; the empirical criterion is, presumably, that in experience which we take to indicate that substantial element. This empirical criterion cannot justify the transcendental principle, since the principle is pure and *a priori*; it simply provides *a posteriori* backup for the objective validity of the principle. Kant returns to this notion of empirical criteria in the second analogy where, first, he notes that the sequence of happenings in time is the “sole empirical criterion of an effect in relation to the causality of the cause which precedes it”.<sup>68</sup> The second analogy states that our perception of succession is only objective experience if there is an underlying rule which compels us to observe *this* order of perceptions and no other — the rule that the condition under which an event necessarily follows is to be found in what precedes the event.<sup>69</sup> So the empirical criterion of *causality* is precisely that experience which is made possible by the law of causality. After giving an example of empirical succession, Kant returns to a discussion of the empirical criterion of substance:

I must not leave unconsidered the empirical criterion of a substance, in so far as substance appears to manifest itself not through permanence of appearance, but more adequately and easily through action.

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<sup>67</sup> CPR A189 / B232.

<sup>68</sup> CPR A203 / B249.

<sup>69</sup> CPR A193-201 / B238-47.

Wherever there is action — and therefore activity and force — there is also substance, and it is in substance alone that the seat of this fruitful source of appearances must be sought.<sup>70</sup>

This passage is potentially problematic as it appears to imply that substance, as discussed in the first analogy, is the “source” of the existence of appearances. Such an interpretation, if correct, would go directly against my argument for the strictly transcendental and formal character of the principle of substance. It is this interpretation which leads commentators such as Strawson to believe that Kant was “confused” and “uneasy” about his doctrine of substance.<sup>71</sup>

I believe, however, that there is another explanation, which also provides an important link between the analogies and *Metaphysical Foundations*. At A204 / B249 Kant’s discussion has shifted subtly from a transcendental to an empirical context. While generally in the analogies he is concerned with the formal conditions of experience as such, he pauses here to consider the empirical criteria of his principles. He discusses and gives an example of the empirical criterion of causality: a glass being filled with water. He then asks about the empirical criterion of substance. Kant’s point in the paragraph that follows is that since we do not directly perceive permanent substance, an “experience of permanence” cannot be the empirical criterion of the principle of permanence. Instead, the empirical criterion is *action*, since action consists in the transitory, and thus can only be attributed to that which is permanent.<sup>72</sup> The experience of action “is a sufficient empirical criterion to establish the substantiality of a subject” and leads to “the concept of a substance as appearance”.<sup>73</sup> In other words, Kant is saying that the experience of action is criterial of both the transcendental *principle* of permanence, and the existence of material substance (i.e. matter). While the experience of action does not justify the principle of permanence (which is justified *a priori*), it *does* justify our inference to the existence of a permanent *material* substance, i.e. matter.

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<sup>70</sup> CPR A204 / B249-50.

<sup>71</sup> Strawson 131.

<sup>72</sup> CPR A205 / B250. This point is repeated frequently in Kant’s lectures on metaphysics.

<sup>73</sup> CPR A205-6 / B250-1.

The *Metaphysical Foundations of Natural Science* confirms this position. *Metaphysical Foundations* tells us that the empirical concept of substance is equivalent to that of matter; it “signifies the ultimate subject of existence”.<sup>74</sup> This phrase should be contrasted with the description at A183 / B226 of the transcendental principle of substance as the *correlate* of existence. Kant sometimes uses the term “material substance” to differentiate empirical substance from the transcendental concept of substance.<sup>75</sup> Material substance, matter, cannot be experienced as such. Its concept is indeed empirical, but this concept must be constructed such that a non-empirical intuition is generated. The construction of the concept of matter — material substance, the ultimate subject of existence — is the primary concern of *Metaphysical Foundations*. Kant wants to find the conditions of possibility of generating an *a priori* intuition of matter, so that the foundational concepts of natural science might be brought into harmony with the *a priori* elements of experience.

Heidegger’s description of Newtonian science, as demanding a fundamental representation of things which cannot be experienced, has resonance through *Metaphysical Foundations*. Matter cannot be experienced; nor can the fundamental forces which allow for the construction of the concept of matter and which are thought to allow for matter’s real spatial extension. In the second chapter of *Metaphysical Foundations*, the *Metaphysical Foundations of Dynamics*, Kant defines matter as “the movable insofar as it fills a space”.<sup>76</sup> To fill a space implies the resistance of a special moving force, that of repulsion. But the possibility of matter equally requires a force of attraction, for without it matter “would disperse itself to infinity” and would not be held within any extensional

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<sup>74</sup> *MFNS* Ak. 502-3.

<sup>75</sup> Despite Kant’s obvious differentiation of these terms, and despite the absence of any argumentation for their identity in Kant, Allison (*Kant’s Transcendental Idealism*, 209) claims that permanent substance (as set out in the first analogy) and matter can be *identified*. This position allows Allison to claim that Kant argues for the absolute permanence of substance, thus responding to commentators such as Bennett and Strawson who charge Kant with an illegitimate substitution of absolute for relative permanence of substance. However, I can see no textual justification for Allison’s claim. Guyer (*Kant and the Claims of Knowledge*, 233-5), by contrast, suggests that substance need not necessarily be correlated with matter, but can be correlated with whatever empirical science determines to be enduring. While this position is more accurate than Allison’s, Guyer maintains that Kant’s argument for transcendental substance is effectively an unsuccessful argument for the permanence of matter — an position the fundamental premises of which I disagree with.

<sup>76</sup> *MFNS* Ak. 496.

limits.<sup>77</sup> These two forces, the repulsive and the attractive, are the two fundamental forces which constitute matter, and to which all lesser forces are reduced. The fundamental forces are the conditions of possibility of matter as filling a space in a determinate degree; “the possibility of matter itself rests upon these two foundations”.<sup>78</sup>

In Kant’s special metaphysics the concept of matter is reduced to these forces and the ongoing conflict between them. The fundamental forces, like matter itself, cannot be experienced as such. Now if the concept of matter or material substance is ultimately reducible to fundamental forces, none of which can be experienced directly, it might be that matter is empirically characterized by *observable* forces that operate in nature.<sup>79</sup> This is why Kant can say, in the second analogy — assuming my interpretation of “substance” at this point in the text as *empirical* (material) substance is correct — “wherever there is action — and therefore activity and force — there is also substance”. Kant is saying that activity and force, as experienced in nature, indicate the existence of material substance, which itself cannot be experienced.<sup>80</sup> Now with regard to the transcendental principle of substance, material substance cannot be criterial, for it cannot be experienced. So empirically observed action, which is criterial for material substance, also becomes the empirical criterion of transcendental substance. With this, Kant also draws a contrast with the empirical criterion of the principle of causality: causality’s empirical criterion is simply the experience of irreversible succession. But the empirical criterion of the principle of permanent substance is not the experience of that which is permanent (i.e. material substance); it is, rather, the experience of action. These empirical criteria provide *a posteriori* backup for the objective validity of the transcendental principles of substance and causality, but such backup does not have justificatory status: as Kant suggests, the experience of

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<sup>77</sup> *MFNS* Ak. 508.

<sup>78</sup> *MFNS* Ak. 518. Although Kant evidently got the idea of the fundamental forces of matter from Newton, he diverges from a strictly Newtonian account by insisting on original gravitational force, as Buchdahl emphasizes (*KDR*, ch. 13).

<sup>79</sup> These lesser forces can, of course, be reduced to attraction and repulsion: see *MFNS* Ak. 534.

<sup>80</sup> See also *CPR* A265 / B321: “We are acquainted with substance in space only through forces which are active in this and that space, either bringing other objects to it (attraction), or preventing them from penetrating into it (repulsion and impenetrability). We are not acquainted with any other properties constituting the concept of the substance which appears in space and which we call matter.”

action and succession help us to gain “logical clearness” concerning the rules we must have employed *a priori* in order to have such experience.<sup>81</sup>

Now we are in a position to understand the passage quoted above in which Kant says “it is in substance alone that the seat of this fruitful source of appearances must be sought”. It is in material substance, or matter, that we may seek the source of appearances. Yet we can only reach this empirical concept of substance through the principle of causality. For the principle of causality tells us that appearances change through action, and action cannot be found in a subject which itself changes. When we experience a change of state — wax melting by the action of fire, to return to the Cartesian example — the same rule by which we attribute causality to the fire leads us to attribute permanence to something in the wax, as the unchanging subject on which the fire acts. The experience of causality involves an experience of action, and action is both the empirical criterion of the *principle* of permanent substance, and the mark of the *material* substance constituting all appearances and their changes of state. The experience of action indicates the transcendental necessity of the *a priori* principle of permanent substance, without which the experience would be formally impossible; but it also indicates the empirical necessity of material substance, without which existence itself would be materially impossible. The transcendental principles of substance and causality are foundational for those empirical principles of material existence which Kant will develop in *Metaphysical Foundations*. Only through these principles can we understand matter, and investigate nature as to its material possibility.

To summarize: in the first analogy, Kant argues for the transcendental necessity of the principle of permanence of substance. Our experience of alteration and duration is possible only on the presupposition of this principle. Kant does not argue that a material substratum is found in objects of perception, but rather that our experience is constituted by the transcendental presupposition that appearances include permanent substance. Kant then indicates that the transcendental principle of permanence of substance has an empirical criterion, which is not justificatory but *correlative* of the principle. The empirical criterion

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<sup>81</sup> The need for these empirical criteria is demonstrated with the Refutation of Idealism, as I will show later.

cannot be material substance (i.e. matter), for we do not experience “matter” as such. Instead, the empirical criterion is *action*, from which we infer an unchanging material subject of action, which provides *a posteriori* backup for the objective validity of the principle. Action is criterial of both the principle and of the unperceived material substance (matter). The specific laws of matter will come from the transcendental principles which make possible “nature in general”.

As if to confirm this, Kant says at the end of the analogies that nature in the empirical sense is to be understood as

the connection of appearances as regards their existence according to necessary rules, that is, according to laws. There are certain laws which first make a nature possible, and these laws are *a priori*. Empirical laws can exist and be discovered only through experience, and indeed in consequence of those original laws through which experience itself first becomes possible.<sup>82</sup>

Empirical nature must be understood as that “mathematical” connection of appearances which has always already been determined to be lawlike by the principles of understanding. It is only because the transcendental principle of permanence is necessary for experience that we are able to arrive at an empirical concept of material substance, and it is only because there is a formal nature in general that a material nature can be available to experience. Only through this epistemic framework can we arrive at nature’s material basis, its existential ground. The ground of all existence appears to be the conflict between the forces of attraction and repulsion. To this conflict of fundamental forces we now turn.

#### 2.4 The conflict of fundamental forces

In the analogies we see that as we analyze the *a priori* framework through which nature is experienced, the unexperienceable material conditions of nature

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<sup>82</sup> CPR A216 / B263.

are indicated. We never experience matter *as such*. Rather, we experience *things* as substantial, causal, and coexistent. Through these transcendental determinations we are able to characterize what we experience as material substance or matter. And in the *Metaphysical Foundations of Natural Science*, Kant goes one step further and states that we can characterize the empirical concept of matter in terms of fundamental forces. Things are thought through the empirical concept of matter, and matter is thought through the empirical concept of force. “All that is real in the objects of our external senses [...] must be regarded as moving force”.<sup>83</sup>

The concept of matter, for Kant, is reducible to the concept of the conflict of the fundamental forces of attraction and repulsion. It is crucial to recognize within the Newtonian context that for Kant, matter is not something in addition to these forces: it *is* these forces.<sup>84</sup> Kant’s theory of matter is not atomistic but dynamic, anticipating later developments in the theory of forces and fields.<sup>85</sup> Furthermore, matter is characterized as the ongoing *conflict* of forces for Kant, which distinguishes his matter theory from other contemporary accounts. While Boscovich, for instance, assumed that the forces of attraction and repulsion alternate in their activity, Kant seems to have been unique in believing the activity of the two forces to be simultaneous.<sup>86</sup> Matter is the ongoing interaction of the forces of attraction and repulsion, which are co-original — that is, neither force makes the other possible.<sup>87</sup>

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<sup>83</sup> *MFNS* Ak. 523.

<sup>84</sup> See *MFNS* Ak. 523-5, where Kant contrasts his own system to that of Newton’s “mathematico-mechanical mode of explication”. Newton held that matter consists of simple atoms *bound together* by inter-atomic forces (the action of which was later explained by the medium of ether). See Stephen Toulmin and June Goodfield, *The Architecture of Matter* (Chicago: University of Chicago Press, 1962), 187-200. For an argument that Newton is not the object of Kant’s criticism, see Friedman, *Kant and the Exact Sciences*, 137-41. Kant argues against the assumption that matter consists of simple parts both at *MFNS* 506-8, and in his discussion of the second antinomy, *CPR* A523-7 / B551-5.

<sup>85</sup> So suggests Ian Hacking, who also argues that this scientific development accompanied Kant’s rejection of knowable noumena (*Representing and Intervening* [Cambridge: CUP, 1983], 100). Kant’s dynamic physics is considered to have played an important role in the history of science, inspiring nineteenth-century field theorists including Faraday to view forces rather than fluids as the active principles of matter. L. Pearce Williams gives an account of Kant’s scientific influence in his *Michael Faraday* (London: Chapman and Hall, 1965). According to Williams (63), Kant’s matter theory was introduced to British scientists largely through the influence of Samuel Taylor Coleridge, who believed that in reducing the essence of matter to the action of force, “Kant had removed the last obstacle to the creation of a truly universal science embracing both the material universe and God”.

<sup>86</sup> Förster, *Kant’s Final Synthesis*, 38-9.

<sup>87</sup> *MFNS* Ak. 511-3.

There is a problem, however, in determining the actuality of the fundamental forces, due to their very fundamentality. The concepts of the fundamental forces are, like the concept of matter, empirical concepts that are not taken directly from experience. But unlike the concept of matter, the concepts of the forces cannot be constructed or “conceived”. The concepts of the forces are *fundamental* and cannot be derived from any other concepts. This, as Kant says, is the meaning of their “inconceivability”: “they are called fundamental forces precisely because they cannot be derived from any other force, i.e. they cannot be conceived”.<sup>88</sup> They can be neither experienced nor constructed. This means that we cannot determine how the fundamental forces are possible, and this prevents us from asserting their actuality. In this sense the possibility of the fundamental forces is incomprehensible:

Who claims to comprehend the possibility of fundamental forces? They can only be assumed, if they inevitably belong to a concept concerning which there can be proved that it is a fundamental concept not further derivable from any other. [...] We can indeed judge well enough *a priori* concerning their connection and consequences; one may think of whatever relations of these forces among one another he wants to, provided he does not contradict himself. But he must not, therefore, presume to assume either of them as actual, because the authorization to set up a hypothesis irremissibly requires that the possibility of what is assumed be entirely certain. But in the case of fundamental forces, their possibility can never be comprehended.<sup>89</sup>

We can make judgments about the relations of the forces based on their concepts, but we cannot assume that these relations are actual. Our inability to construct these concepts, due to their fundamentality, means that we are unable to comprehend the possibility of the forces. We can relate the concepts of the forces

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<sup>88</sup> *MFNS* Ak. 513. For a position that situates the inconceivability of the fundamental forces in Kant’s rejection of mathematico-mechanical explanations of matter, see Daniel Warren, “Kant’s Dynamics”, in Watkins (ed.), 93-110.



to the data of experience — particularly the sensation of impenetrability<sup>90</sup> — but we can neither experience the forces as objects, nor construct a non-empirical intuition of them. They are concepts that have been found to work towards the construction of a non-empirical intuition of matter, and, like two unknown algebraic quantities, must be assumed in order that the construction should work.

The concepts of the fundamental forces of attraction and repulsion work towards the construction of the concept of matter; only through assuming these concepts can we understand how matter fills a space. Despite the impossibility of “conceiving” them (i.e. deriving them from other concepts), we can determine certain things about the forces. They must, first, be spatio-temporal: the forces must be thought as filling space and as acting (conflicting with one another) in time. Furthermore, in their concepts, the forces fulfill the presence condition of the axioms and anticipations: they can be anticipated *a priori* to have some degree of spatio-temporal reality. (If they could not be thus anticipated, they could not be thought to have a “determinate degree”, which Kant clearly says they are.)<sup>91</sup> The concepts of the forces are also determined by other schematized categories: as ongoing, interacting forces that cause material effects, they must be thought under the principles of permanence, causality and reciprocity.<sup>92</sup> The applicability of the categories to the concepts of the forces suggests that they are objects of possible experience. The problem is that in also determining them to be fundamental, Kant precludes their real possibility. As long as we think that the concepts of the forces cannot be derived from any others, we will be prevented from admitting that they are really possible, and prevented from determining laws of their activity.<sup>93</sup>

The fundamental forces seem to be concepts of the unconditioned. Kant suggests just such a view of them in the first *Critique*. He refers to “certain new

<sup>89</sup> *MFNS* Ak. 524.

<sup>90</sup> *MFNS* Ak. 510. Impenetrability relates to the concept of repulsive force, but the force of attraction is more problematic, giving us no analogous sensation whatsoever.

<sup>91</sup> See, e.g., *MFNS* Ak. 518.

<sup>92</sup> I am grateful to Dr. Gary Banham for drawing my attention to this.

<sup>93</sup> Kant frequently states that we cannot understand the possibility of the fundamental forces. Schelling aims to get beyond this limitation in his 1797 *Ideas for a Philosophy of Nature* (trans. Errol E. Harris and Peter Heath [Cambridge: CUP, 1988]). While he conceives of matter as a product of these same original forces and agrees with Kant that they cannot be experienced, he finds that they are possible only as the expression of the corresponding original activities of the understanding (171-92). Kant himself arrives at a comparable position in the *Opus Postumum*, a development I will address in chapter 5.

fundamental forces” as examples of *ens rationis*, empty concepts without objects, and likens them to noumena.<sup>94</sup> In the *Critique*, Kant clearly assigns these concepts to the faculty of reason: the concept of gravity has the same regulative status as the idea of a divine author, “assumed simply in order that we may have an explanation”.<sup>95</sup> Kant had clearly changed his mind about the fundamental forces by the time he wrote *Metaphysical Foundations*, for in this text they are determinate concepts of understanding, concepts of that which comprises matter and makes up appearances. Yet the forces retain their problematic fundamentality. Since they are thought to make possible all determinations of matter — all the qualities we experience things to have — the forces have a similarity to Kant’s idea of the sum-total of all reality. In moving from reason to understanding, this idea becomes the concept of that which makes all existent things and qualities possible. The fundamental forces are not ideas of reason in *Metaphysical Foundations*, but are concepts of understanding, based on the *a priori* analysis of the concept of matter. They are concepts of the very basis of matter, concepts of the ground of all that is real in the objects of our external senses. It remains the case, however, that we are not entitled to think that an object exists that corresponds to this concept; we must simply entertain this concept if we are to have a coherent explanation of the possibility of matter and existence.

The fundamental forces seem to emerge from the analysis of matter as concepts of the ground of all existence. They explain how matter fills a space, and how it resists and repels other matter. They explain how matter is extended; how bodies have some determinate size and shape. In other words, the concepts of the forces explain *a priori* how matter in general fills space, and how bodies in general fill space to a determinate degree. The forces are thought as dynamical productivity, as they are thought to produce the extension, shape, and qualities of bodies. But if we take the forces to be the ground or origin of existence, it will be a problem for Kant’s existential theory that the fundamental forces cannot be assumed to exist; existence, ultimately, would be explained by the *concept* of

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<sup>94</sup> CPR A290-1 / B347.

<sup>95</sup> CPR A773 / B801. Friedman, in *Kant and the Exact Sciences* (1), claims that Kant was sympathetic to Newtonian attraction as action at a distance throughout his career. If this is true, Kant evidently found it difficult to square gravitation with the transcendental conditions of natural

conflicting forces. It may be more charitable to Kant to consider the existence of conflicting forces a hypothesis to be tested, on the basis that the concept of conflicting forces emerges from an analysis of the concept of matter. To hypothesize the existence of something from its concept, however, would run contrary to Kant's thesis about being, and given Kant's denial at Ak. 524 of the validity of hypotheses based on uncertain possibilities, it does not seem likely that this is Kant's position. The fundamental forces are only concepts, which cannot be thought to produce existence.

Indeed, one consequence of our not being able to ascribe actuality to the fundamental forces is that Kant cannot explain how the conflict of the forces produces any specific body. Such an explanation would require determinate dynamical laws, and thus the real possibility of the forces. Kant concedes that mechanical-atomistic theories of matter such as Newton's have an advantage over his dynamical theory for the reason that they are able to derive, "from a completely homogeneous material, [...] a great specific multiplicity of matters, according to their density as well as their mode of action". If, on the other hand, we "transform" the material itself (i.e. atoms) into fundamental forces,

then all means are wanting for the construction of this concept and for presenting as possible in intuition what we thought universally. [...] I am unable to furnish an adequate explication of the possibility of matter and its specific variety from the fundamental forces.<sup>96</sup>

The concept of the conflict of the fundamental forces is adequate to explain the concept of matter, but is inadequate to explain the real production of bodies, their specific densities and modes of action.

However, we should consider what Kant *has* achieved with the concept of the conflict of forces. A "complete analysis of the concept of matter in general" was all that Kant set out to provide in *Metaphysical Foundations*, an analysis he hoped

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science as set out in 1781; presumably this was an impetus to his grounding physical laws in their metaphysical foundations with *MFNS*.

<sup>96</sup> *MFNS* Ak. 525.

would eventually found a more complete doctrine of body.<sup>97</sup> He did not intend to explain the production or diversity of bodies; nor did he set out to determine the ground of all existence. From the concept of matter Kant has arrived at the concept of conflicting forces, which, even if its objective reality cannot be assumed, specifies the way we conceptualize existence. Existence is not thought to be *caused* or produced by the conflict of fundamental forces; it is *thought as* this conflict. As I argued in chapter one, the ground of existence, for Kant, can only be other existence, within the realm of appearances; Kant's theory of forces gives us a more specific way to consider the interaction of existence and the impossibility of arriving at an absolute ground. It is precisely the advantage of Kant's "metaphysico-dynamical" method that, rather than blindly positing some "unconditioned original position" from which to derive existence, existence is shown to have no ground beyond or outside of itself.

We are entitled, then, to *think* existence as ongoing dynamical production, even if we cannot assume the actuality of the dynamical constituents or explain how production of specific bodies takes place. That is, existence is not thought as static, homogeneous presence, as Heidegger claims it is, but rather as *dynamical, conflicting productivity*. What entitles us to think this is not the character of matter as it is experienced, but the analysis of the empirical concept of matter determined according to transcendental principles. The concept of existence as dynamical productivity emerges from the epistemic structure of the principles of spatio-temporal reality, of permanence, of causality, and of reciprocity. Through our epistemic comportment towards it, existence is "mathematically" determined as dynamical productivity, and determining existence in this way allows us to explain the possibility of matter. The "mathematical" determination of nature that Heidegger identifies results in a concept of nature as dynamical productivity, and *not* as produced presence. Dynamical productivity is thus the character of the existential side of Kant's ontology, and of the "object" side of the subject-object relation of being. It is the analysis of epistemic concepts that leads us to a concept of dynamical productivity that must be thought to characterize the existence of

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<sup>97</sup> *MFNS* Ak. 472. Kant returns to the doctrine of body in his *Opus Postumum*, which I discuss in chapter 5.

nature. And thus Kant's existential ontology emerges from, and is only possible within, his epistemological ontology.

At the same time, however, epistemological ontology relies upon existence, in that epistemology relies upon outer experience. In its reliance on outer experience, epistemology relies specifically upon dynamical productivity. This can be seen in the Refutation of Idealism, where Kant returns to the question of the empirical correlate of the transcendental principle of permanence. He suggests that what we experience *as* permanent in appearance is *impenetrability*, that sensation to which we relate the fundamental force of repulsion. Note that it is still *action* that is criterial of the principle of permanence, for impenetrability is the repulsive "action" of a body. Only because we experience impenetrability as the action of an inferred permanent material substrate — an experience made possible by the principle of the first analogy — do we have outer experience of material things; and only through such outer experience do we have inner experience.<sup>98</sup> Impenetrability, thought as the fundamental force of repulsion, is a condition for the possibility of outer and inner experience.

The necessity of impenetrability to experience is clear in the Refutation. The intellectual representation of the I does not involve impenetrability, so there is nothing experienced *as* permanent in this representation. The permanence we require for inner experience must be sought in outer experience instead. Now this suggests that impenetrability, as the empirical correlate of permanence, is necessary to the experience of permanence — just as necessary as the transcendental *principle* of permanence. For, as the case of the self shows, when there is no predicate of intuition that can serve as correlate for transcendental permanence, there is no determination of existence in time. The relevant passage from the Refutation is as follows:

With this thesis [the Refutation] all employment of our cognitive faculty in experience, in the determination of time, entirely agrees. Not only are we unable to perceive any determination of time save through change in outer relations (motion) relatively to the

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<sup>98</sup> CPR B275-9.

permanent in space (for instance, the motion of the sun relatively to objects on the earth), we have nothing permanent on which, as intuition, we can base the concept of a substance, save only *matter*, and even this permanence is not obtained from outer experience, but is presupposed *a priori* as a necessary condition of determination of time, and therefore also as a determination of inner sense in respect of [the determination of] our own existence through the existence of outer things. The consciousness of myself in the representation ‘I’ is not an intuition, but a merely intellectual representation of the spontaneity of a thinking subject. This ‘I’ has not, therefore, the least predicate of intuition, which, as permanent, might serve as correlate for the determination of time in inner sense — in the manner in which, for instance, *impenetrability* serves in our empirical intuition of matter.<sup>99</sup>

In other words, the transcendental principle of permanence alone is not enough: experience determined by time also requires an empirical correlate, something experienced *as* “the permanent in space”. The appropriate empirical correlate would be matter, but as we have seen, the *permanence* of matter is not intuited; rather, action is intuited, and specifically the “action” of repulsive force, or *impenetrability*. The intuition of impenetrability is required for experience, as empirical correlate to the principle of permanence. It is only insofar as we intuit impenetrability, through our encounter with things in the world, that the *a priori* principle of permanence becomes relevant in determining our perceptions in time.

The categories and principles, then, become relevant only through outer intuitions of existence, specifically existence *as active*. This point is made explicit in the General Note on the System of the Principles (added in B), where Kant calls it “noteworthy” that

in order to understand the possibility of things in conformity with the categories, and so to demonstrate the *objective reality* of the

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<sup>99</sup> CPR B277-8.

latter, we need, not merely intuitions, but intuitions that are in all cases *outer intuitions*. When, for instance, we take the pure concepts of *relation*, we find, firstly, that in order to obtain something *permanent* in intuition corresponding to the concept of *substance*, and so to demonstrate the objective reality of this concept, we require an intuition in space (of matter).<sup>100</sup>

Similarly, Kant says, in order to exhibit alteration as the intuition corresponding to the concept of causality, we require the example of motion, for alteration “not only cannot be conceived by reason without an example, but is actually incomprehensible to reason without intuition”.<sup>101</sup> The objective reality of the categories relies on outer intuitions — the experience of matter which gives us *examples* from which we see how the categories operate objectively. And as matter is always experienced *as active*, the objective reality of the categories relies on outer intuition of *active, dynamical* existence. The objective reality of the categories of substance and causality requires that matter be experienced as impenetrable and in motion. As we have seen, matter can only be determined in these ways through the analysis of matter given in *Metaphysical Foundations*. *Metaphysical Foundations* gives us matter as motion, and as constituted by repulsive and attractive forces. In other words, *Metaphysical Foundations* furnishes us with those *examples* of active existence which are necessary for establishing the objective reality of the categories. Its function is not only to show that physical laws are compatible with the system of categories, but also to establish more firmly the objective reality of those categories. As Eckart Förster argues,

precisely by laying out the principles of external intuition in their entirety does [*Metaphysical Foundations*] prevent the *Critique* from groping “uncertain and trembling, among mere meaningless concepts”. [... *Metaphysical Foundations*] is nothing less than the belated demonstration of the real applicability and objective

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<sup>100</sup> CPR B291.

<sup>101</sup> CPR B292.

validity of the pure categories and principles of the understanding.<sup>102</sup>

The point about the importance of outer intuition is a variant on Kant's general doctrine that there can be neither form without content nor content without form: experience is nothing other than their co-determination. But as Förster notes, there is a shift in emphasis from Kant's discussion of the need for intuition generally, to his B-edition insistence — after the publication of *Metaphysical Foundations* — on the need for *outer* intuition.<sup>103</sup> The significance of outer intuition is that it must be intuition of matter in space: particularly of matter as motion and impenetrability, and thus of matter as essentially constituted actively and dynamically by the fundamental forces. We must think about the objects of our outer experience as constituted by dynamical productivity if the categories are to have objective validity; and thus existence, thought as dynamical productivity, is a requirement of the epistemic system. The *relation* of the categories to existence is the condition of possibility of knowledge, as Kant says in closing the B-edition System of Principles:

The final outcome of this whole section is therefore this: all principles of the pure understanding are nothing more than principles *a priori* of the possibility of experience, and to experience alone do all *a priori* synthetic propositions relate — indeed, their possibility itself rests entirely on this relation.<sup>104</sup>

Neither existence nor the epistemic framework is relevant outside of their relation. Existence, thought as dynamical productivity, is a necessary condition for the objective reality of the epistemic framework, and it is only within the epistemic framework that existence as dynamical productivity becomes manifest. Where existence and epistemic conditions overlap, I have suggested, is where

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<sup>102</sup> Förster, *Kant's Final Synthesis*, 58-9, quoting *MFNS* Ak. 478. For a different interpretation of the “examples” of *MFNS*, see Friedman, “Matter and Motion in the *Metaphysical Foundations* and the *First Critique*”.

<sup>103</sup> Förster, *Kant's Final Synthesis*, 57-9.

<sup>104</sup> *CPR* B294.



Kant's ontology is located, and the relation between them is the subject-object relation of being. Furthermore, if existence is determined as dynamical productivity, then from the existential side at least, Kant's ontology relies on a notion of production. Neither existence nor being can be reduced to Heidegger's "produced presence", but both must be thought in terms of productivity. In the next chapter I will focus on the epistemic side of this relation, determining the extent to which that side too is productive, and finally characterizing being as a productive relation.

## Chapter 2 Summary

In this chapter I have focused on the existential side of the relation of being, stressing that existence for Kant cannot be approached outside of the epistemic framework of concepts and principles. I examined some of the principles of the Analytic in detail, showing that the determination of existence as spatio-temporal reality through the axioms and anticipations leads us to experience existence as presence. I looked at Heidegger's contention that things are determined as "mathematical" for Kant, and that to anticipate things as present indicates a mathematical comportment. I suggested that even if Kant's system is "mathematical", Kant's understanding of existence and being are not therefore based on produced presence. Rather, I argued, it is precisely through the determination of nature as "mathematical" through concepts and principles that it emerges as dynamical productivity.

I then went on to look at how the concept of matter is determined for Kant. I gave an interpretation of the first analogy, arguing that permanence of substance must be understood as a transcendental principle and not as a material description. I showed how the concept of matter is analyzed in Kant's *Metaphysical Foundations of Natural Science* such that it is redescribed in terms of concepts of the fundamental forces of attraction and repulsion. While these forces cannot be assumed to exist, and thus cannot be known to be the origin or ground of existence, they are the specific way we must think existence in order to have a coherent theory of matter. Furthermore, I suggested that we must think existence

in terms of dynamical productivity if the categories are to have objective reality. The claim I have made in this chapter is that the relation between existence and epistemic conditions is crucial to the relevance of both. Existence, thought as dynamical productivity, is a necessary condition for the objective reality of the epistemic framework, and it is only within the epistemic framework that existence as dynamical productivity becomes manifest.

## Chapter 3

### The ground of knowledge: the transcendental object, apperception, and the relation of being

How can the force, which can only give rise to motions, generate representations and ideas? The latter are a kind of thing so different than the former that it is inconceivable how one should be the source of the other.<sup>1</sup>

#### 3.1 The transcendental conditions of materialism

In chapter two I argued that for Kant, matter is reducible to the concept of the conflict of the fundamental forces of repulsion and attraction. The existence and activities of matter are thought in terms of this concept of dynamical productivity. For Kant's pure natural science, existence is thought as this dynamical productivity, with individual existents produced only by other existents. We are now faced with the question: if the existence of matter can be described in terms of the fundamental forces, why do we need any further explanations for the appearing of appearances? If the forces are sufficient explanation for the activities and qualities of matter, why do we seek noumena, intelligible causes, or transcendental objects?

The answer, perhaps unsurprisingly, is that despite Kant's materialism at the level of pure natural science, Kant is not and cannot be a materialist when it comes to a theory of the knowledge of nature. Kant *is*, I venture, a materialist at the level of pure natural science. He insists on eradicating all "occult qualities" from his

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<sup>1</sup> Immanuel Kant, *Thoughts on the True Estimation of Living Forces*, Ak. 1:20, trans. and qtd. Shell 14.

dynamic physiology, particularly the notion of impenetrable simple parts separated by empty spaces. The aim of metaphysics in natural science, he says, is to regard the properties of matter “as dynamical and not as unconditioned original positions”.<sup>2</sup> All of corporeal nature must be explained by dynamical principles and reduced to the fundamental forces. The forces cannot be further reduced to any other concept, material or immaterial; in Langton’s formulation, the relational properties of the forces cannot be reduced to any unknowable intrinsic properties.<sup>3</sup>

But as Jean-Michel Salanskis points out, “the assertion that everything that *is* matter is not yet materialist; one still requires the *nothing but*”.<sup>4</sup> While Kant is prepared to say that everything that *exists* — everything that fulfills the actuality-condition of being materially available to perception — is matter, he is not prepared to say that everything that exists is *nothing but* matter. For according to the definition of actuality, everything actual must be bound up with sensation, and the sensation-relatedness of actuality cannot be reduced to matter or to the fundamental forces. While we must think existence in terms of the forces to explain how matter fills space, the forces cannot explain or ground the fact that existent matter relates to sensation. The forces cannot explain how it is that our senses are affected in the first place, since the concepts of the forces are determined within *experienced* nature. That is, if the concepts of matter and its forces are based on sensations and categories, they cannot be understood as the source of the sensations themselves. Whatever it is on the side of matter that causes it to appear to us *as matter* cannot be explained through our own material principles. Similarly, material principles cannot explain whatever it is on the side of thought that enables it to apprehend nature in its more basic form and then interpret it as matter. Materialism can explain our interpretation of nature, but not the material condition of *affection* required for any such interpretation to come about. Our experience of a material world presupposes that we are affected and cannot itself explain such affection, just as it cannot explain the spontaneity of thought. We need to look both at the problem of affection in Kant, and at Kant’s concept of what it is that makes knowledge relations possible. This requires us to

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<sup>2</sup> *MFNS* Ak. 532-4.

<sup>3</sup> Langton 120.

<sup>4</sup> Jean-Michel Salanskis, “Some Figures of Matter”, trans. Ray Brassier, *Pli* 12 (2001), 5-13, p. 5.

examine the original subject-object relation which I have equated with Kant's notion of being, and the conditions of possibility for that relation.

Let us look first, briefly, at why knowledge cannot be explained through a material principle. Were Kant a materialist, the concept of the forces would be adequate to such an explanation, for the forces would be thought to constitute the mind and its thoughts just as they are thought to constitute matter and its activities. The thinking self, as a variety of organized matter, would be reducible to the fundamental forces and not further. The same forces would be thought responsible for both subject and object, such that the thinking mind and matter would be two varieties of the same stuff, relatable insofar as they are interchangeable. Variants on this position were advocated by various strands of eighteenth-century materialism, which Kant was familiar with and critical of. The radical materialist Julien de la Mettrie, for example, writes:

I believe thought to be so little incompatible with organised matter that it seems to be one of its properties, like electricity, motive power, impenetrability, extension, etc. [...] Let us then assume that man is a machine and that there is in the whole universe only one diversely modified substance.<sup>5</sup>

For la Mettrie, thought is an empirically observable activity of organised matter, pertaining to animals as well as to men, emerging from the organization of matter and not from a soul that is imagined to underlie it. Thinking and matter are entirely compatible because thinking is nothing other than a certain organization of matter in dynamic relation to other organised systems. The “one diversely modified substance” (clearly a misplaced reference to Spinoza) emerges as thinking in man just as it emerges as motion in matter.<sup>6</sup>

Now there are certain passages in the *Critique*, most of them in the A edition Paralogisms, that might be used to contend that Kant held a similar position to La

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<sup>5</sup> Julien Offray de la Mettrie, “Machine Man” (1747), in *Machine Man and Other Writings*, ed. and trans. Ann Thomson (Cambridge: CUP, 1996), 35, 39.

<sup>6</sup> La Mettrie 33. La Mettrie proclaimed himself variously to be a Spinozist and an anti-Spinozist; Israel (707) points out that La Mettrie's idea of Spinoza was based more on contemporary notions of “Spinozism” than on any actual acquaintance with Spinoza's texts.

Mettrie's. In both the first and third *Critiques* though, Kant is highly critical of this sort of materialism, calling the causalistic interpretation of nature (which refers even the purposive form of matter solely to its physical basis) "so manifestly absurd, if taken literally, that we must not let it detain us".<sup>7</sup> He makes the case against materialism in the *Critique* by claiming that soul and matter are not comparable on the empirical level. The materialist mistake is to take both soul and matter as things in themselves — as two atomic centres of organization, for instance — and then to assert that they are of the same nature.<sup>8</sup> For Kant, by contrast, the thinking self (not as empirical, but as pure self-consciousness) is not represented in the same mode as matter is: as we have seen, the thinking self lacks all predicates of intuition, whereas matter is apprehended through predicates of intuition. We find that our *representations* of self and matter are indeed distinct, for the thinking self is represented as the mere thought "I think" while matter is represented as appearance. The "I think" is not, like matter, the sort of thing that is reducible to the fundamental forces. Nor can the "I think" be thought to be of the same nature as the forces themselves. The forces, while they do not conform to the conditions of possible experience, are on the level of appearances:

Neither bodies nor motions are anything outside us; both alike are mere representations in us; and it is not, therefore, the motion of matter that produces representations in us; the motion itself is representation only, as also is the matter which makes itself known in this way.<sup>9</sup>

Matter and motion are appearances, meaning that the fundamental forces which are thought to constitute them must also be taken to be appearances, belonging to the realm of experience. By contrast, the "I think" is "not itself an experience, but the form of apperception, which belongs to and precedes every experience".<sup>10</sup> We can only say that it is a *subjective* condition of knowledge; we are not justified in

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<sup>7</sup> *CJ* §72, Ak. 391.

<sup>8</sup> *CPR* A379. See also A383 where Kant speaks of "the danger of materialism". The materialist mistake is, of course, the same mistake that leads to mind-body dualism.

<sup>9</sup> *CPR* A387.

<sup>10</sup> *CPR* A354.

transforming it into “a concept of a thinking being in general”.<sup>11</sup> No existent being can be inferred from this merely *logical* unity of subject. Thus the “I think” cannot be thought to be existentially productive (as the fundamental forces are at least *thought* to be), but can only be thought to be able to accompany the process of epistemological reproduction. Materialism cannot account for the thinking self: the “I think” cannot be an object of study for pure natural science, but is only that unity of self-consciousness that is able to accompany all representations of thought.<sup>12</sup>

But this only says that the I cannot be reduced to the same empirical grounds as matter. It does not mean that mind and matter do not share a common *intelligible* ground. If we distinguish appearances from intelligible objects, we find that our mode of representing the two types of objects is distinct, but we are not therefore able to affirm or deny their underlying identity or difference. Our thinking self, “the transcendental object of inner sense”, cannot be an object of outer sense, and similarly, we can never find thinking beings *as such* among outer appearances.<sup>13</sup> This argument is so natural and popular, Kant says, that the common understanding has always relied upon it to distinguish souls from bodies. But although the properties of matter as reported by outer sense cannot be seen to contain thoughts,

nevertheless the something which underlies the outer appearances and which so affects our sense that it obtains the representations of space, matter, shape, etc., may yet, when viewed as noumenon (or better, as transcendental object), be at the same time the subject of our thoughts. That the mode in which our outer sense is thereby affected gives us no intuition of representations, will, etc., but only of space and its determinations, proves nothing to the contrary.<sup>14</sup>

In other words, it is misguided to compare the “I think” with matter as appearance. The proper comparison is between the thinking self — often called the

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<sup>11</sup> CPR A354.

<sup>12</sup> See MFNS Ak. 471.

<sup>13</sup> CPR A357-61.

transcendental subject — and the transcendental object of matter. On *that* level, Kant says, we cannot know that soul and body are in any way distinct. Kant's point is not that matter and the thinking self *do* share a common *empirical* ground, but only that, when viewed as appearances, there is nothing to prevent our consideration that they *may* share a common *intelligible* ground. That common intelligible ground cannot be material, but, as an underlying unifying ground, it may be thought to be the source of the suitability of mind and world to one another.

The true question of psychology, then, is not how representations of matter and representations of the self should associate with one another, but rather how representation is possible at all. How is it that a non-intuitive, non-creative thinking subject, the *I think*, has intuition of appearances in space? What is the initial relation that makes outer intuition possible for the I think? The question, which in his famous letter to Herz Kant called “the key to the whole secret of hitherto obscure metaphysics”, is “what is the ground of the relation of that in us which we call ‘representation’ to the object”, given that our intellectual faculty neither creates nor is passively affected by the object?<sup>15</sup>

The much discussed question of the communion between the thinking and the extended, if we leave aside all that is merely fictitious, comes then simply to this: *how in a thinking subject outer intuition*, namely, that of space, with its filling-in of shape and motion, *is possible*. And this is a question which no man can possibly answer. This gap in our knowledge can never be filled; all that can be done is to indicate it through the ascription of outer appearances to that transcendental object which is the cause of this species of representations, but of which we can have no knowledge whatsoever and of which we shall never acquire any concept.<sup>16</sup>

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<sup>14</sup> CPR A358.

<sup>15</sup> Letter to Marcus Herz, 21 February 1772. *Correspondence*, trans. and ed. Arnulf Zweig (Cambridge: CUP, 1999), Ak. 10:129-35, pp. 132-7.

<sup>16</sup> CPR A392-3.



Kant tells us here that we will never know how a thinking subject is ultimately able to relate to spatial beings. As we have seen, a material concept cannot help us to bridge the gap between matter and an intelligible self. In order to accommodate the *I think* and to account for its suitability to the world, we will require a concept of something that underlies *both* the I and the world. All we can do, Kant says, is point to a transcendental object of which we can have no knowledge whatsoever. This transcendental object may be the cause of the representations we call matter, and, as we have seen, may be identical in nature to our transcendental subject.

That a subject-object relation is possible seems to be attributable only to a transcendental object of which we know nothing. Numerous other passages from the Paralogisms attest to this:

For matter, the communion of which with the soul arouses so much questioning, is nothing but a mere form, or a particular way of representing an unknown object by means of that intuition which is called outer sense. There may well be something outside us to which this appearance, which we call matter, corresponds.

We ought [...] to bear in mind that bodies are not objects in themselves which are present to us, but a mere appearance of we know not what unknown object.

The transcendental substratum of outer appearances [...] is just as unknown to me as is the thinking self.

Neither the *transcendental object* which underlies outer appearances nor that which underlies inner intuition, is in itself either matter or a thinking being, but a ground (to us unknown) of the appearances which supply to us the empirical concept of the former as well as of the latter mode of existence.<sup>17</sup>

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<sup>17</sup> CPR A385, A387, A383, A379-80.

This last passage is perhaps the most important, for Kant is unequivocal that the transcendental object is neither matter nor a thinking being, but is merely an unknown ground of the appearances of both. An intelligible ground, some substratum underlying appearances, is thought to be the cause of the realm of appearance itself. It is striking that in all these cases Kant speaks of *one* transcendental object that is the singular and unifying ground of appearances. While existence, thought in terms of the fundamental forces, has no ground beyond itself within the realm of appearances, this singular supersensible substratum is thought to underlie existence as a totality, or the realm of appearances in general.

If we continue to assert that *being* for Kant is equivalent to the subject-object relation, and that existence has no ground outside of itself, there is a question as to the ontological status of this substratum which is thought to make being and existence possible. This is the question I will address in this chapter. I will maintain my position that being is a relation between subject and object, and will argue that the intelligible ground, as an idea of reason, has no status in terms of existential ontology. In order to reach this position I will need to provide a fuller explanation of the original subject-object relation that I am equating with being, and discuss how that relation provides a *transcendental* ground for appearances that is not the same as the postulated *intelligible* ground. I will look at the two Deductions, the Phenomena and Noumena chapter, and the Amphiboly of Concepts of Reflection to draw these points out.

The entire argument rests upon Kant's use of the term "transcendental object". As we have just seen, Kant uses the term "transcendental object" to refer to the intelligible ground or supersensible substrate (the latter is the term he will use in the *Critique of Judgment*). However, this is complicated by the fact that Kant uses the term "transcendental object" in a different but related way in the A edition Transcendental Deduction and Phenomena and Noumena chapter. In those sections, the transcendental object is the concept of objectivity in general, which is closely linked to subject-object relatedness. The transcendental object seems to be used to answer both our questions in this chapter: first, what the subject-object relation consists in, and second, what the ground of appearance and affection is. But because in the first case (as I will show) the transcendental object is thought to

be a product of the subject-object relation, whereas it is thought to be the condition of possibility of such a relation in the second case, we cannot conflate Kant's two uses of the term "transcendental object".

I will argue that Kant uses the term "transcendental object" in two ways: first as a *concept of understanding*, and second as an *idea of reason*. I will distinguish the concept of the transcendental object as objectivity in general, from the idea of the transcendental object as the intelligible cause of appearances. While the concept is used to explain the possibility of knowledge, the idea is used to explain the possibility of affection. I will start with a discussion of the concept of the transcendental object, the possibility of knowledge and the subject-object relation of being. This will be the topic of section 3.3, which takes as its textual basis the two versions of the transcendental deduction. In this section we will arrive at a fuller understanding of how being operates as subject-object relatedness. In section 3.4 I will look at how this concept of the transcendental object is thought to be the ground of appearances, in the sense of being their condition of possibility. Finally, in 3.5, I will look at the *idea* of the transcendental object as the intelligible cause of appearances, which allows us to think how subject-object relatedness is possible, though not actually to *explain* it. This argument will lead us, finally, to a coherent understanding of how being, existence, knowledge, and production are related in Kant's first *Critique* as a productive ontology. We will see that being is nothing other than the productive relation of material and transcendental production: the original subject-object relation that operates through the synthetic unity of apperception. There is a unifying basis underlying the relation of being, which can never be known, but which must be assumed through ideas in order that we have a systematic idea of nature and our place in it.

### 3.2 Affection and objectivity

To begin with, I will assess some recent interpretive strategies towards Kant's transcendental object. We need to determine what the transcendental object is, and to distinguish it from the noumenon and the thing in itself. In order to do this it is important that we take a view on the relation of appearance to thing in itself. This,

of course, is no easy task. We need to decide whether the terms thing in itself, noumenon, and transcendental object refer to the same “something” or not, and whether this “something” is another reality underlying appearances or another interpretation of the thing as appearance. There are three major lines of interpretation one might take here.<sup>18</sup>

The first, sometimes called the “two worlds” view, I will call ontological (or, to be more precise, *existential*) dualism. Appearance and thing in itself are thought to be two distinct types or realms of reality: the phenomenon/noumenon distinction is thought to manifest itself as appearance/reality and effect/cause.<sup>19</sup> This view, held by Guyer and Findlay amongst others, tends to cast Kant as a Leibnizian thinker who assumes there are non-phenomenal substances with a non-phenomenal causal power underlying appearances. Related interpretations see the fundamental forces of *Metaphysical Foundations* as relational properties of these unknown non-phenomenal substances, or, worse, as the inherent forces of monads.<sup>20</sup> Such positions, to which I am strongly opposed, pay insufficient attention to the transcendental nature of Kantian experience, and are led to the conclusions that Kant’s logical concept of substance has objective reality, and that matter is a phenomenal property of this “absolute subject”. (In fact, as I discussed in chapter two, the pure concept of substance as absolute subject is merely a *logical* concept, and has no object. Similarly, the transcendental concept of substance as permanence has no object, but serves only as a principle constitutive of experience. Only the empirical concept of substance as matter has an object corresponding to it, and this is the only *substance* that can be said to exist.)

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<sup>18</sup> This topic has been extensively covered in the literature and I will not discuss in detail the advantages and shortcomings of the different interpretations. Allison, Guyer, Strawson, Bennett, Langton, and Rescher all give extensive treatments of the debates at large. For a concise summary, see Hoke Robinson, “Two Perspectives on Kant’s Appearances and Things in Themselves”, *Journal of the History of Philosophy* 32:3 (1994), 411-41.

<sup>19</sup> Guyer holds that Kant argues for “things which are actually not in space and time” (*Kant and the Claims of Knowledge*, 334). For another recent ontological dualist view, one that responds specifically to Heidegger, see William F. Vallicella, “Kant, Heidegger and the Problem of the Thing in Itself”, *International Philosophical Quarterly* 23:1 (1983), 35-43.

<sup>20</sup> I refer particularly to Findlay and Langton. Findlay takes ontological dualism so far as to promote the theory that there are Leibnizian monads causing appearances (190-1) and that these monads or simple substances manifest themselves through the “primary phenomena” of force (246-8). Langton takes a more moderate view that the world is one set of things with both intrinsic and relational properties, the former being the unknowable properties of things in themselves (12). Unfortunately, by identifying things in themselves with a notion of non-phenomenal substance (59). Langton, like Findlay, gives us a very Leibnizian Kant.

I believe that we should hold to the second line of interpretation, championed by Allison and Rescher, which takes Kant to be advocating not an existential dualism but an epistemological dualism: “thing as appearance” and “thing in itself” are two possible interpretations of a thing, epistemically filtered in different ways. On this view, often called the “two aspects” view, the distinction between appearance and thing in itself is not between two types of entity, but between two considerations of the same entity.<sup>21</sup> But even if we take this view, we remain stuck with a type of dualism: that between the given and its epistemic interpretations. What is this given that *can* be viewed as appearance or thing in itself? Whether we think of noumena (wrongly) as underlying entities or (rightly) as epistemic functions, we are left with the question of what first *affects* sensibility, and what that affecting something might be were the forms of intuition absent. While existential dualism purports to answer that question by stating that noumena are causally responsible for affecting the senses, it is clear from Kant’s treatment of noumena that, as mere thought-entities postulated *after* experience, they can have no such function. As Strawson famously showed, explaining the world as an effect of the “causality” of a real yet non-phenomenal substance would be unintelligible.<sup>22</sup>

This problem leads to the third line of interpretation, which is really an extension of the second. This line, which we might call the heuristic cause interpretation, suggests that the understanding must postulate the idea of a thing in itself, noumenon, or transcendental object as being the cause of appearances, without claiming that such a cause exists or has any reality. In order to explain the possibility of affection, the understanding must assume an underlying intelligible cause of affection, but does not assume it could ever have knowledge of this cause

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<sup>21</sup> Allison, *Kant’s Transcendental Idealism*, 248. See also ch. 1 of Nicholas Rescher, *Kant and the Reach of Reason* (Cambridge: CUP, 2000). Kant seems to express this view directly in his *Opus Postumum*: the difference between an object in appearance and the same object as thing in itself “does not lie in the objects, but merely in the difference of the relation in which the subject apprehending the sense-object is affected for the production of the representation in itself” (Ak. 22:44, p. 179). As I will suggest in chapter five, however, we cannot take what Kant says in the *Opus Postumum* as a guide to the transcendental idealism of the first *Critique*.

<sup>22</sup> Strawson’s critique, therefore, highlights a major problem with the existential dualist line of interpretation, and not a problem inherent to Kant’s text. Langton shows that Strawson’s charge that Kant “violates any acceptable requirement of intelligibility” (Strawson 41-2) disappears if, for instance, we interpret Kant as offering “one world, one set of things, but two kinds of properties”, intrinsic and relational. See Langton, ch. 1.

or of the type of causality through which it affects human sensibility. This third line of interpretation, as I suggested, is compatible with the second, and many commentators sympathetic to the second view take this third view to be its adjunct. I will end up endorsing a variant of this view, though not the variant that Allison and Rescher endorse. While they claim that Kant's concept of the transcendental object is straightforwardly thought to be this intelligible cause, I will argue that, under the assumption of a distinction between the *concept* of the transcendental object and the *idea* thereof, the *idea* is postulated by reason as the idea of an intelligible cause, to give us a systematic explanation for the cause of affection.

In order to reach that position, as I have said, I will need to look at the transcendental object. The best way to understand the function of the transcendental object is to start with Kant's concept of it in the Deductions, where (as I will show) it is associated with the concept of "objectivity in general". There are two particular interpretive strategies that take this concept seriously: that of Heidegger, and that of philosopher of science Gerd Buchdahl. Heidegger, in *Kant and the Problem of Metaphysics*, argues that objectivity is established as an ontological horizon of experience. This is accomplished with the transcendental object, the "something = X" which is "known in ontological knowledge".<sup>23</sup> By ontological knowledge, Heidegger does not mean knowledge in the Kantian sense of intuition plus thought, but rather that which makes such knowledge possible: the initial intentional relatedness of subject to object that occurs *a priori*, and is described in the Transcendental Deductions. We saw Heidegger arguing something similar in *The Basic Problems of Phenomenology*: in the initial relation, the subject was said already to "grasp" the being of things, where being (on Heidegger's account) was determined as permanent presence.

In *Kant and the Problem of Metaphysics*, Heidegger's assessment comes from a different angle. He does not focus on the "being of things" that is grasped by the subject, but on the relational horizon within which this grasping takes place. In Heidegger's analysis of the A Deduction in this text, the initial subject-object relation forms the horizon within which things first become experienceable.<sup>24</sup> The

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<sup>23</sup> *KPM* 84.

<sup>24</sup> *KPM* 10.

forming of the ontological horizon is the relation to a transcendental object prior to experience, but this is not the same as the grasping of the “being of things” described in *Basic Problems*. Heidegger claimed that the being of things, for Kant, was equivalent to the permanent presence of things. The transcendental object, by contrast, is not a feature belonging to or characterizing things, but is the horizon of *objectivity in general* that makes possible the determinate experience and real knowledge of things. On Heidegger’s account of Kant, the human subject relates itself to objectivity, within which relation the subject is able to grasp the being of things as permanent presence. This grasping of being makes experiential knowledge possible. The transcendental object is not an object of knowledge, since it is the “pure horizon” for the possibility of knowledge in general. As Heidegger says:

The X is a “Something” of which we can know nothing at all. But it is not therefore not knowable, because as a being this X lies hidden “behind” a layer of appearances. Rather, it is not knowable because it simply cannot become a possible object of knowing, i.e., the possession of a knowledge of beings. It can never become such because it is a Nothing.

Nothing means: not a being, but nevertheless “Something.” It “serves only as a *correlatum*,” i.e. according to its essence it is pure horizon. [...] The X is “object in general.” This does not mean: a universal, indeterminate being which stands against. On the contrary, this expression refers to that which makes up in advance the rough sizing up of all possible objects as standing-against [*Gegen-stehen*], the horizon of a standing-against.<sup>25</sup>

The transcendental object is not a thing that lies behind appearances, but is the horizon of objectivity in general. This horizon of objectivity, which is “known” in ontological knowledge, makes it possible, on Heidegger’s account, that the being of things is disclosed as permanent presence: “ontological knowledge [...] is

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<sup>25</sup> *KPM* 83-4, quoting *CPR* A250. Heidegger uses the term *Gegen-stehen* to echo Kant’s use of *Gegenstand* for the object in general.

nothing other than the holding-open of the horizon within which the Being of the being becomes discernable in a preliminary way”.<sup>26</sup> Heidegger’s interpretation of the transcendental object as objectivity in general is thus in accord with his assessment of being as presence for Kant, for objectivity is the relational horizon in which being is disclosed. Objectivity is thus also the horizon in which beings, as objects of experience, can be uncovered and known. Appearances exist as objects of experience only because objectivity has already been established as horizon. In this sense, the transcendental object, objectivity in general, makes appearances possible. For Heidegger, the question of affection by the transcendental object is replaced with the question of the horizon of objectivity that makes experience possible.

Gerd Buchdahl has also made some interesting comments on the transcendental object with his unique interpretation of the “dynamic flow” of the Kantian object.<sup>27</sup> Buchdahl’s interpretation is remarkably similar to Heidegger’s in some respects, without any apparent awareness of Heidegger’s project. On Buchdahl’s interpretation of Kant, an object is a single item that is “realized” as appearance, thing in itself, thing in general, noumenon, and so on, by way of different epistemic strategies. The multi-faceted nature of the Kantian thing is the outcome of the different realizational strategies taken:

Instead of viewing, in *synchronic* fashion, the different interpretations of the Kantian “object” as so many different quasi-independent entities (e.g. appearances, things-in-themselves, things in general, etc.), we propose to view these *diachronically* as so many “stations” in the realizational process.<sup>28</sup>

Buchdahl proposes that what Kant describes in the Transcendental Aesthetic and Analytic is a “reduction-realization process” in which the thing is taken up and determined according to the various components of the transcendental framework.

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<sup>26</sup> *KPM* 84.

<sup>27</sup> In chapters 1-3 of *KDR*, which includes a magnificent diagram. Makkreel takes a similar approach, arguing that the imagination produces meaning by “reading” and interpreting the manifold of the world. See Rudolf A. Makkreel, *Imagination and Interpretation in Kant* (Chicago: U of Chicago P, 1990).



When we open our eyes on the world we are met not yet with a manifold of appearances, but rather with the “life-world” of the things and people with which we interact.<sup>29</sup> Such a world would be the pre-philosophical, non-transcendental world of everyday experience, which is taken up through empirical concepts: a sort of Humean world of experiential impressions and ideas. The life-world must be epistemically “neutralized”, or (to use the Husserlian terminology, as Buchdahl does) “bracketed”, becoming what Kant calls the thing in general. The need for this suspension is explained by the need for an *a priori*, and not merely empirical, conceptual structure: a pre-given, mind-independent life-world would not, as Hume so convincingly pointed out, have any necessary connection to that conceptual structure.<sup>30</sup>

Buchdahl goes on to explain that the “thing in general” is interpreted in various ways: as appearance and as thing in itself, for instance. But in order to reach these interpretations, or “realizations” as Buchdahl terms them, the thing in general must be reduced to *objectivity* taken in the transcendental sense, and in its reduced state it is the transcendental object. The transcendental object is what is thought to pre-exist the perceptual encounter, what is thought to be there before the thing is taken to be appearance.<sup>31</sup> It is “transcendental” in the sense that “its conditions for realization are as yet held in abeyance [...] the categories cannot as yet be ‘employed’”.<sup>32</sup> We *reduce* the thing in general to *objectivity* in general, to a “colourless” *something* available for determination. The transcendental object signifies *that* there is something that is formally *determinable* but, because of its status as objectivity in general, the transcendental object also *determines* the appearances that will result. The transcendental object will be realized through (i.e. determined by) the forms of intuition and the categories as appearance.<sup>33</sup> And this stage is necessary to the subsequent generation of category-governed cognition: “only if something *can* be the case [...] can cognitions be ‘about’

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<sup>28</sup> KDR 6.

<sup>29</sup> KDR 8. Buchdahl borrows the term “life-world” from Husserl.

<sup>30</sup> KDR 8-9.

<sup>31</sup> KDR 11.

<sup>32</sup> KDR 12. Buchdahl makes a useful distinction between this sense of “transcendental” and the more usual sense, as a condition of possible experience.

<sup>33</sup> KDR 13-14.

something”.<sup>34</sup> The transcendental object, the establishment of objectivity in general, is a necessary stage in the process of realizing the world as a world of qualitatively determined appearances.

It is in this sense (the same sense as Heidegger’s) that the transcendental object can be said to make the appearance possible: the transcendental object provides the general objectivity which grounds any possible realizational outcome. The transcendental object for Buchdahl is nothing other than the thing stripped of the apparatus of everyday experience in the life-world, in order that the formal apparatus of the categories may be applied in the realizational process. What is left over, after reduction and before realization, is the formal concept of objectivity in general. This objectivity will *determine* the appearance that arises with intuition, and in this move it will also *be determined* by the forms of intuition and the categories. Realization of the thing as appearance determines the qualitative manifestation of the transcendental object, while the transcendental object determines that there will be a realizational outcome.<sup>35</sup> Though Buchdahl’s argument is somewhat more complex, his point is that while the appearance-aspect of the thing determines the transcendental object-aspect materially, the transcendental object-aspect determines the appearance-aspect formally. The use of “aspect” here highlights Buchdahl’s insistence that we are talking about *one* object at its different realizational stages: “under the description [transcendental object] it is as yet unrealized — ‘colourless’, so to speak; [...] we are as yet lacking the transcendental framework which first renders any object discussible meaningfully in terms of qualities and relations”.<sup>36</sup>

Buchdahl’s interpretation of Kant is original and noteworthy, if uncreditable at times. There seems to be scant evidence for some of his points, particularly for his claim that the Kantian subject encounters a life-world that is not yet ordered by the formal constraints of experience.<sup>37</sup> Is it not Kant’s point that it is precisely because we *do* open our eyes onto an always already ordered world that experience must always involve an *a priori* formal framework? Even Heidegger places the “pre-

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<sup>34</sup> KDR 13.

<sup>35</sup> KDR 15.

<sup>36</sup> KDR 15-17. Buchdahl borrows the notion of the “colourless object” from Wittgenstein’s *Tractatus*.

knowledge” relation of subject and object at the stage of establishing *objectivity in general*; in claiming that this relation is ontological, he precisely would *not* allow that Kantian experience could be possible before and without its ontological horizon. Buchdahl goes one step further than Heidegger by suggesting that before the establishment of objectivity we encounter the world in the non-categorical, everyday way of Husserl’s “natural attitude” (much in the way that “ontic” experience operates in Heidegger’s *Being and Time*). While it is true that Kant suggests at various points that a certain kind of experience would be possible without the categories, this experience would be so impoverished as not to deserve the name: it would, perhaps, be the experience of infants or animals who lack spontaneity of thought. The suggestion that we have a non-categorical, non-spontaneous “experience” of things before reducing and re-formalizing them into appearances simply runs counter to Kant’s general notion of experience.

Buchdahl’s claim for a Kantian pre-categorical life-world is hard to accept, but its acceptance is, I think, unnecessary to adopting his interpretation in general. There is much to be gained from Buchdahl’s “realizational” view of the phenomena/noumena distinction and his interpretation of the transcendental object. We can reject his belief in a pre-categorical life-world and begin the dynamic process with the transcendental object. Buchdahl and Heidegger agree that as objectivity in general, the transcendental object is the ground of all appearing in general. I will agree that the concept of the transcendental object is the concept of objectivity in general that is determined in its realization as appearance. The concept of the transcendental object is the ground of objective appearances, and thus whatever brings that concept about is the ground of knowledge and of Kant’s epistemological ontology. What brings the concept about will be seen to be the synthetic unity of apperception. The relation of transcendental apperception, in which the synthetic unity of apperception and the objectivity of things is established, will also be found to be the relation of being. I agree, then, with Heidegger’s claim that the being of things is disclosed with the establishment of objectivity. But I reject his claim that the being of things is their

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<sup>37</sup> For a thorough if uncharitable critique of Buchdahl, see Kenneth R. Westphal, “Buchdahl’s ‘Phenomenological’ View of Kant: a Critique”, *Kant-Studien* 89 (1998), 335-52.

permanent presence, arguing instead that being is the relation in which objectivity is established.

### 3.3 The concept of the transcendental object and the relation of being

I will now look at how objectivity in general is produced by the spontaneity of the understanding, and how the concept of the transcendental object is bound up with the formal requirement of objectivity for experience. We will see that in establishing the objectivity of objects, transcendental apperception establishes the subject-object relation of being.

Kant's clearest expression of the provenance and function of the concept of the transcendental object is found in his first Transcendental Deduction. Although the Deduction was entirely rewritten for the B edition, and the concept of the transcendental object almost entirely omitted from the B Deduction, the B Phenomena and Noumena chapter, and the B Paralogisms, it is retained in the Amphiboly appendix (written in A and largely unchanged in B). Despite Kant's omissions, this concept of the transcendental object has resonance throughout the *Critique* and is not incompatible with the rewritten Deduction. In discussing how knowledge arises in the Deductions, we will arrive at an understanding of the concept of the transcendental object. While Kant's introduction of a transcendental object often seems to be a claim for an underlying reality, it is, in almost all cases in the Analytic, the deployment of a concept of formal objectivity in general referring to the unity of apperception.

#### *i) The A Deduction*

In the Transition to the Deduction, the first half of which is the same in A and B, Kant says that there are only two possible ways in which representations can obtain necessary relation to objects: either the object alone makes the representation possible, or the representation alone makes the object possible.<sup>38</sup>

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<sup>38</sup> CPR A92 / B124.

The first option, the empiricist answer, is merely an empirical relation, and is true of appearances as regards their sensible element. Only with the second option is the representation possible *a priori*:

In the latter case, representation in itself does not produce its object [*Gegenstand*] in so far as *existence* is concerned, for we are not here speaking of its causality by means of the will. None the less the representation is *a priori* determinant of the object, if it be the case that only through the representation is it possible to *know* anything *as an object*.<sup>39</sup>

Representation makes the object possible, not in terms of producing its existence, but in terms of determining it *a priori* as an object. Here Kant subtly makes the distinction between existential production — the work of God — and epistemological reproduction, the work of a spontaneous understanding. It is because the human understanding *does not* create what it intuits that an inquiry into the objective validity of representation is necessary. Knowledge is possible under the conditions of intuition, in which an already-created appearance is given through the formal condition of sensibility, and under the conditions of a concept, through which an object is thought corresponding to the intuition. The necessary agreement of appearances with the formal condition of sensibility having already been shown, “the question now arises whether *a priori* concepts do not also serve as antecedent conditions under which alone anything can be, if not intuited, yet thought as object in general”.<sup>40</sup> All experience does contain a *concept* of an object appearing, in addition to what is given in intuition, and thus concepts of objects in general underlie all empirical knowledge as its *a priori* conditions.<sup>41</sup> These “concepts of objects in general” are part of the structure of representations that make objects of *experience* possible.

Concepts of objects in general must be produced by the spontaneous faculty of understanding, for the receptive faculty only performs a synopsis through which

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<sup>39</sup> CPR A92 / B125.

<sup>40</sup> CPR A93 / B125.

<sup>41</sup> CPR A93 / B126.

sense obtains a spatio-temporal manifold in its intuition. To this receptive synopsis a spontaneous synthesis must correspond, and spontaneity is the ground of a threefold synthesis “which must necessarily be found in all knowledge”.<sup>42</sup> These three syntheses are the apprehension of representations as modifications of the mind in intuition, their reproduction in imagination, and their recognition in a concept. The synthesis of apprehension is directed immediately upon the intuitions received through the initial synopsis, running them through and binding them together into a manifold of intuition. Only by virtue of this synthesis does intuition offer a manifold contained in a single representation.<sup>43</sup>

Kant goes on to say that experience presupposes the reproducibility of appearances, for it is an empirical law that we are able to recall a representation even in the absence of its object. Appearances themselves must be the sorts of things that can be reproduced in representation. There must then be something which makes possible the empirical synthesis of reproduction *a priori*, and we must assume this to be the transcendental synthesis of imagination.<sup>44</sup> This is what Kant calls the “productive imagination”, for in bringing about the synthesis of reproduction *a priori*, it produces unity in the synthesis of what is manifold in appearance.<sup>45</sup> Without this second synthesis, we could never obtain a complete representation in experience, for we would never be able to hold on to the part of the representation that came before the current part. “The synthesis of apprehension is thus inseparably bound up with the synthesis of reproduction.”<sup>46</sup>

The synthesis of reproduction points to the third, for our purposes most important, synthesis. If in experience we must reproduce representations in order to be conscious that what we think is the same as what we thought a moment before, these reproductions of representations must be unified in one consciousness. The unitary consciousness “is what combines the manifold, successively intuited, and thereupon also reproduced, into one representation”.<sup>47</sup>

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<sup>42</sup> CPR A97.

<sup>43</sup> CPR A99.

<sup>44</sup> CPR A101. Heidegger has famously drawn attention to the importance of the faculty of imagination to the A Deduction, and to Kant’s ontology, in *Kant and the Problem of Metaphysics*. Makkreel gives a critique of Heidegger, and an invaluable study of the imagination throughout Kant’s corpus, in his *Imagination and Interpretation in Kant*.

<sup>45</sup> CPR A118-23.

<sup>46</sup> CPR A102.

<sup>47</sup> CPR A103.

Without this unity of consciousness, concepts and thus knowledge of objects would be impossible. In fact, the unity of consciousness gives us those “concepts of objects” we require for experience.

Kant now gives one of his clearest explanations of the relation between *appearance* and *object*. “At this point we must make clear to ourselves what we mean by the expression ‘an object of representations’ [*eines Gegenstandes der Vorstellungen*]”. If appearances are nothing but sensible representations which are not to be taken for independent objects,

what is to be understood when we speak of an object corresponding to, and consequently also distinct from, our knowledge? It is easily seen that this object must be thought only as something in general = X, since outside our knowledge we have nothing which we could set over against this knowledge as corresponding to it.<sup>48</sup>

We find that our thought of the relation of knowledge to its object carries with it an element of necessity, and it is the *object* that is viewed as that which prevents our knowledge from relating merely to contingent representations. “The object is viewed as that which [...] determines [our modes of knowledge] *a priori* in some definite fashion”.<sup>49</sup> Kant says that we continue to view objects as *determining* our modes of knowledge, as giving them the objectivity that makes them agree with one another and that makes our judgments applicable. Yet the view that objects make representations possible has been rejected. All we apprehend is the manifold of representations; the “something in general = X”, the “object”, must necessarily be distinct from our representations, “set over against” and outside our knowledge. So how is it that this object is both thought to determine knowledge and is unavailable to knowledge?

Kant’s answer is that our thought of this object is *the concept of a unity in the manifold*. This concept of an object is required in order that our knowledge not be arbitrary, but the objective unity is in fact a projection of the unity of self-

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<sup>48</sup> CPR A104.

<sup>49</sup> CPR A104.

consciousness. In this way, thought makes the object possible (determines it *a priori*), while *viewing* this object as the source of objective unity.

It is clear that [...] the unity which the object makes necessary can be nothing else than the formal unity of consciousness in the synthesis of the manifold of representations. It is only when we have thus *produced* synthetic unity in the manifold of intuition that we are in a position to say that we know the object.<sup>50</sup>

This “objective” unity can come from nowhere other than our own productive understanding. The formal unity of consciousness combines the manifold into one representation, and *in so doing* finds an objective unity in the manifold. Only when this synthetic unity has been produced can we say we *know* an *object*, rather than merely *intuiting* a *representation*. It is at this point that the subject-object relation comes about, for in producing synthetic unity, the subject establishes that there is an object.<sup>51</sup> What is produced is not the existence of an object as such, but the concept of an object in general: the concept of objective unity. Establishing that there is an object in general, which happens through the relation of producing synthetic unity, is the establishment of the being of the thing. This is not to say that being is equivalent to objectivity, but rather that being is equivalent to the subject-object relation in which objectivity is produced.

Thus in order to think a triangle as an *object*, Kant says, we are conscious of the combination of three straight lines according to a rule by which an intuition of a triangle can *always* be represented. This unity of rule (applying to each successive moment of intuiting this triangle) determines and limits the manifold, thus making possible the unity of apperception: the unity of rule *makes it the case* that the manifold is the sort of thing that a unitary consciousness combines into one representation that is *of an object*. Thus the function of applying the unity of rule gives us a single representation of a triangle and a concept of an object in general, the *objectivity* of the representation. Having a concept of objectivity

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<sup>50</sup> CPR A105, emphasis added.



means that I think of my representation as a representation *of* an object = X, and it means that I have a relation *to* such an object. Although not directly intuited, this object = X is thought through those predicates that *are* intuited. “The concept of this unity is the representation of the object = X, which I think through the predicates, above mentioned, of a triangle”.<sup>52</sup> Having established the being of the triangle by bringing it into relation, I can now say that the triangle *is scalene* or simply that the triangle *is*.

The unity of consciousness, or transcendental apperception, connects modes of knowledge with each other, precedes all data of intuitions, and makes possible the representation of objects: it precedes experience and makes it possible. Transcendental apperception is the transcendental ground of the unity of consciousness, and thus also of the concepts of objects in general, and so of all objects of experience.<sup>53</sup> It is “a ground without which it would be impossible to think any object for our intuitions, for this object is no more than that something, the concept of which expresses such a necessity of synthesis”.<sup>54</sup> Transcendental apperception produces the concept of an object in general due to its identity of function, and the consciousness of this self-identical functioning is also consciousness of the objectivity of appearances:

This transcendental unity of apperception forms out of all possible appearances, which can stand alongside one another in one experience, a connection of all these representations according to laws. For this unity of consciousness would be impossible if the mind in knowledge of the manifold could not become conscious of

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<sup>51</sup> To my knowledge, Sebastian Gardner is the only other commentator that has characterized the Deduction specifically in terms of a subject-object relation. See his *Kant and the Critique of Pure Reason* (London: Routledge, 1999), 135ff.

<sup>52</sup> CPR A105.

<sup>53</sup> Wolfgang Carl argues that Kant developed this line of argument in his early drafts of the Deduction. He quotes Kant as saying: “an appearance will be made objective by bringing it about that it is contained under a title of self-perception”; “the conditions *a priori* under which [a given representation] can refer to an object [...] can be discovered in the subject. This object can only be represented according to the relations [of the subject] and is nothing but the subjective representation [of the subject] itself, but generalized, because I am the original of all objects”. Kant, Reflections 4677 and 4674, qtd. Wolfgang Carl, “Kant’s First Drafts of the Deduction of the Categories”, in Eckart Förster (ed.), *Kant’s Transcendental Deductions* (Stanford: Stanford UP, 1989), 3-20, here at pp. 15-16.

<sup>54</sup> CPR A106-7.

the identity of function [i.e. unity of rule] whereby it synthetically combines [the manifold] in one knowledge. The original and necessary consciousness of the identity of self is thus at the same time a consciousness of an equally necessary unity of the synthesis of all appearances according to concepts, that is, according to rules, which not only make them necessarily reproducible but also in so doing determine an object for their intuition, that is, the concept of something wherein they are necessarily interconnected.<sup>55</sup>

The unity of consciousness requires the mind to be conscious of the identity of its synthesizing function. The mind's synthesizing function is the application of the *unity of rule* over each successive intuition of a specific representation, and it is an *identity* of function because a numerically identical consciousness performs the synthesis. What is so important here is that in order for the subject to be conscious of its identity, it must be conscious of its productive, synthesizing activity amongst the manifold.<sup>56</sup> Thus the subject-object relation establishes not only objectivity, but also *subjectivity* (if we take subjectivity to be equivalent to self-consciousness); the relation of being establishes both a subject and an object. In applying unity of rule — as we saw with the triangle — we generate a unified representation of the thing as attached to an *object*: the concept of something = X. So the object, which Kant will now call the *transcendental* object, is a transcendental product of the relation of being, in which a “productive” self synthesizes the manifold and gives it unity.

Kant is now in a position to say more about the transcendental object. The transcendental object is, of course, not an “object” at all, but is *the concept of an object in general* that accompanies our unified representations. It prevents knowledge from being arbitrary by grounding the representation, thus giving objective reality to empirical concepts in their relation to an object. Kant notes also that the concept of the transcendental object is “always one and the same”

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<sup>55</sup> *CPR* A108, interpolations mine.

<sup>56</sup> As Heidegger suggests, the “I think” may be better characterized as “I am able” [“*ich vermag*”, literally “I have the power”] (*KPM* 53). Kant sometimes describes apperception as a power or faculty, e.g. at *CPR* A117n. The ability of the productive understanding, it seems to me, is much

throughout our knowledge. The objective reality of empirical concepts *in general* is assured by the pure concept of a transcendental object that is bound up with appearances *in general*.

The pure concept of this transcendental object, which in reality throughout all our knowledge is always one and the same, is what can alone confer upon all our empirical concepts in general relation to an object, that is, objective reality. This concept cannot contain any determinate intuition, and therefore refers only to that unity which must be met with in any manifold of knowledge which stands in relation to an object. This relation is nothing but the necessary unity of consciousness, and therefore also of the synthesis of the manifold, through a common function of the mind, which combines it in one representation.<sup>57</sup>

Kant's claim that the transcendental object "is always one and the same" throughout all knowledge suggests that there is no one-to-one relation between appearances and transcendental objects: transcendental objects are not Leibnizian monads.<sup>58</sup> Rather, the pure concept of one *unified* transcendental object is bound up with appearances in general, corresponding to the unity of consciousness synthesizing the manifold. We do not generate *this* "object in general" and then *that* "object in general" and so on; rather, for every appearance we employ the *same* pure concept "object in general", making all appearances *objective* in exactly the same way. Thus the concept of the transcendental object should not be thought as the concept of an *object* as such. It is, rather, the concept of *objective* unity in the manifold, and is thus the concept of the "objectness" or objectivity of appearances.

The concept of the singular unity of the transcendental object is what identifies it with the "objective ground of all association of appearances", which Kant calls

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more important at this stage than that of the productive imagination celebrated by Heidegger in *KPM*.

<sup>57</sup> *CPR* A109.

their affinity.<sup>59</sup> Appearances have an affinity by virtue of the unity of apperception, whose principle states that appearances must conform to this unity — i.e. they must be thought to have a unified transcendental object underlying them. The concept of the transcendental object ensures that appearances are, in principle, unifiable and conformable to one another. Without the unity of consciousness, knowledge would be without an object, for it is the concept of the unity of the thinking, functioning, self that produces the concept of this objective unity. Knowledge is only possible if appearances stand under the conditions of the necessary unity of apperception, and thereby become *objects*.<sup>60</sup>

Thus Kant's well-known phrase becomes clearer: "the *a priori* conditions of a possible experience in general are at the same time conditions of the possibility of objects of experience".<sup>61</sup> By "objects" Kant means intuitions unified into representations by transcendental apperception, and thereby given the objective unity of an underlying transcendental object. While it is true that in this phrase Kant is referring to the categories, he is also, on a more general level, referring to transcendental apperception as an *a priori* condition of possible experience, and condition of possibility of *objects*, rather than merely intuitions, of experience.

Nature, as object of knowledge in an experience, with everything which it may contain, is only possible in the unity of apperception. The unity of apperception is thus the transcendental ground of the necessary conformity to law of all appearances in one experience.<sup>62</sup>

### *ii) The B Deduction*

Kant entirely rewrote the Deduction for the B edition, and made a number of changes which are significant to aspects of the *Critique* with which I am not directly concerned. I will not address those changes here. Instead, I will suggest

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<sup>58</sup> I disagree entirely with Findlay, who claims that transcendental objects "are to be conceived as Leibniz and Wolff conceived them, as Kant conceived them in his early days, that is, as dynamic, monadic simples underlying complex spatio-temporal appearances" (190-1).

<sup>59</sup> CPR A122.

<sup>60</sup> CPR A110.

<sup>61</sup> CPR A111.

<sup>62</sup> CPR A127.

that Kant's accounts of objectivity and of the grounds of knowledge in B, although described in different terms, are not significantly different from those in A. This means that Kant's account of the subject-object relation, the relation of being, is quite consistent between the two versions; indeed, the B Deduction gives a much clearer account of this relation.

In the B Deduction, Kant describes how the character of appearances and objects comes about *with* the character of thought. It must be possible, Kant says, for the "I think" to accompany all my representations, for otherwise there could be representations that could not be thought.<sup>63</sup> While there can be no unthinkable representations, there are representations that can be given *before* thought, and these are called intuitions; the manifold of intuitions has a necessary *relatability* to the "I think" in the same subject in which the manifold is found. This relating of the manifold of intuitions to the "I think" is an act of spontaneity and not of receptivity. It is pure apperception, constantly and solely concerned with generating the representation "I think". Pure apperception must be unified, for representations given in an intuition "would not be one and all *my* representations, if they did not belong to one self-consciousness".<sup>64</sup> The unity of apperception is the transcendental unity of self-consciousness; it performs the "original combination" of the manifold.

The identity of the apperception of the manifold contains a synthesis of representations, "and is possible only through the consciousness of this synthesis".<sup>65</sup> For the relation of the percipient empirical consciousness to the identity of the subject comes about not merely through accompanying every representation with the "I think", "but only insofar as I *conjoin* one representation with another, and am conscious of the synthesis of them".<sup>66</sup> In order for experience to relate to *one* self-consciousness, I must not only be able to generate the representation "I think" to accompany every other representation, I must also connect the representations and be aware of this connection. Only through this consciousness of unification can I represent the identity of self-consciousness.

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<sup>63</sup> CPR B131-2.

<sup>64</sup> CPR B132.

<sup>65</sup> CPR B133.

Only insofar as I can unite a manifold of given representations in *one consciousness*, is it possible for me to represent to myself *the identity of the consciousness in [i.e. throughout] these representations*. In other words, the *analytic* unity of apperception is possible only under the presupposition of a certain *synthetic* unity. [...] Synthetic unity of the manifold of intuitions, as produced [*hervorgebracht*] *a priori*, is thus the ground of the identity of apperception itself, which precedes *a priori* all *my* determinate thought.<sup>67</sup>

The B edition account of the synthetic unity of apperception preceding the analytic unity makes much clearer its relation to Kant's claim, in the Refutation of Idealism, that inner sense in general is possible only through outer sense in general. The numerical identity of consciousness is revealed to me through my ability to unite the manifold of intuition in one consciousness. The "I think" must be accompanied by an "I act" in order to say "I know myself as one consciousness". In order to reach consciousness of the identity of the self and the determinate thoughts pertaining to it, we must already be amongst the manifold of spatio-temporal intuitions, able to produce synthetic unity *a priori*. Heidegger expresses a similar thought when he states that "world is essentially disclosed *with the being* of Da-sein".<sup>68</sup> The world is available to the subject, at this pre-categorical stage, only as a spatio-temporal manifold of intuitions. Nevertheless, a pre-categorical *relation* to this world is a necessary presupposition of the representation of the identity of the self and of determinate thought in general. The relation of the subject to the world is a *productive* one in which a synthetic unity is generated. Consciousness of the identity of our thinking self is grounded upon a productive relation to the world.

The original synthetic unity of apperception is this initial relation between mind and world which makes possible the identity of self-consciousness and all determinate thought. The productive activity of understanding gives unity to the

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<sup>66</sup> CPR B133.

<sup>67</sup> CPR B133-4. I substitute "produced" for Kemp Smith's "generated".

<sup>68</sup> *Being and Time*, 203.

manifold, and by unifying the manifold in its own consciousness, establishes its own subjectivity. This activity must precede all experience and is the ground of the possibility of knowledge: “the principle of apperception is [thus] the highest principle in the whole sphere of human knowledge”.<sup>69</sup> This activity of synthetic apperception, just as it was in the A Deduction, is the initial subject-object relation that both constitutes the subject as a self-identical subject of possible knowledge, and constitutes the object as a unified object of possible knowledge. In the B Deduction it is even more clear how the understanding *produces* unity, and establishes *both* subjectivity and objectivity with the act of giving that unity to the manifold and drawing that unity into its own consciousness. The relation is produced by the understanding alone, “which is nothing but the faculty of combining *a priori*, and of bringing the manifold of given representations under the unity of apperception”.<sup>70</sup>

Here we have the original subject-object relation that is equivalent to the relation of *being*. It is the relation that takes place *before* experience and *before* self-consciousness, which establishes *that* a world is suitable for knowing and *that* a mind is suitable for knowing it. Through the synthetic unity of apperception, the understanding, in its original spontaneous activity, “posits” a knowable world; it is the productive understanding, and not God, that accomplishes this positing, and that brings about the relation of being. Just as we saw in the A Deduction, being is the relation between a productive understanding and a world. It is through the productive activity of spontaneity that the *being* of beings — their relatedness to a subject, *as* objects — is established before the beings themselves are known. The understanding must produce synthetic unity in order to know anything, including its own self-identity. Beings are established as knowable through the initial productive relation of subject to world. It is worth noting, in response to the discussion of productive comportment in chapter one, that if our initial and overriding comportment towards the world is one of producedness, that is because

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<sup>69</sup> CPR B135, interpolation mine.

<sup>70</sup> CPR B134-5. We can align productive spontaneity with Béatrice Longuenesse’s definition of Kantian understanding as the capacity to judge. In establishing a relation to the object, the understanding sets up the conditions of possibility of judgment. See Longuenesse, *Kant and the Capacity to Judge*, trans. Charles T. Wolfe (Princeton: Princeton UP, 1998), 7.

the synthetic unity, on which all knowledge is based, is itself *produced*. (I will return to this later.)

I believe that the A and B Deductions are very close on the topic of the original relation of being. One difference between them is that Kant does not discuss the transcendental object in B. He does, however, assert that an object is one result of the synthetic unifying activity of apperception:

an *object* [*Objekt*] is that in the concept of which the manifold of a given intuition is *united*. Now all unification of representations demands unity of consciousness in the synthesis of them. Consequently it is the unity of consciousness that alone constitutes the relation of representations to an object, and therefore their objective validity and the fact that they are modes of knowledge; and upon it therefore rests the very possibility of the understanding.<sup>71</sup>

Kant's notion of an object here appears to be quite different from that of the A Deduction, and may reflect a terminological difference between *Gegenstand* and *Objekt*. Allison suggests that *Objekt* refers to the broad, logical conception of an object associated with objective validity, while *Gegenstand* refers to a "real" object of possible experience, associated with objective reality.<sup>72</sup> Indeed, Kant characterizes "an object [*Gegenstand*] of representations" (transcendental object) in A as that which confers objective reality on empirical concepts, although it is not itself an object of possible experience. In B, an object [*Objekt*] is whatever can be represented by means of the unification of a manifold of intuition under a concept.<sup>73</sup> But if this is a correct description, then a B-object is not so different from an A-object: in A, a transcendental object is the conceptual objectivity associated with the unification of a manifold in general. In B, the object is the

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<sup>71</sup> CPR B137.

<sup>72</sup> Allison, *Kant's Transcendental Idealism*, 135. Makkreel proposes that the contrast between *Objekt* and *Gegenstand* is not only that between logical and real objects, but also between what is given as mere material, and what is given as schematized object. "Thus anything either merely thought or merely sensed would be an *Objekt* and becomes a *Gegenstand* — an object of experience — only through the mediation [...] by the schemata of the imagination" (Makkreel 40-1). But if Makkreel or Allison is right, it is unclear why a transcendental object is *Gegenstand*.



formal notion of a concept-governed unified manifold in general. Kant simply uses less ontologically committed language here: whereas in A we had the concept of a transcendental object, in B we have merely a formal requirement. Both indicate the necessity of the concept of objectivity in general to experience.

What the object is in B can be seen somewhat better from Kant's example of what it is to know something in space.

To know anything in space (for instance, a line), I must *draw* it, and thus synthetically bring into being a determinate combination of the given manifold, so that the unity of this act is at the same time the unity of consciousness (as in the concept of a line); and it is through this unity of consciousness that an object (a determinate space) is first known.<sup>74</sup>

Knowledge requires the understanding first to combine the manifold through synthesis, thus bringing into being a particular combination. This act of synthesis is what gives the subject consciousness of its own identity or unity. The unity of the act of combining is thus also the unity of consciousness, and this *unity of act* — determinate combining by a single consciousness — is the formal condition of knowing any concept-governed unified manifold, an *object in general*. It is through the unity of consciousness, and through the initial subject-object relation of being, that the conditions of possibility of objectivity in general are brought about. So the unity of consciousness, by virtue of providing the conditions of possibility of objectivity in general, constitutes the *relation* of representations to an object: the unity of consciousness makes it possible that representations relate to objects at all.

The understanding provides the conditions of possibility of objectivity, which include the spontaneous production of a synthetic unity of apperception and a self-identical consciousness in which representations may be *unified* under a concept. The objective validity of knowledge — its capacity to be true or false in relating

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<sup>73</sup> Allison, *Kant's Transcendental Idealism*, 145.

<sup>74</sup> *CPR* B138.

representations to an object — rests upon this objective unity of self-consciousness.

The synthetic unity of consciousness is, therefore, an objective condition of all knowledge. It is not merely a condition that I myself require in knowing an object, but is a condition under which every intuition must stand in order *to become an object for me*.<sup>75</sup>

Every intuition must stand under the synthetic unity of consciousness in order to become a knowable, judgeable object. Thus the transcendental unity of apperception allows us to make objectively valid judgments, that is, to assert that something is the case in the object, and is not merely a relation of representations connected according to subjective laws of association.<sup>76</sup> The objective unity of consciousness gives the copula “is” its meaning: it connects two concepts in a way that denotes the objective *validity* of the relation regardless of the objective *reality* of the content of the judgment.<sup>77</sup> As we saw in chapter one, Kant demonstrates with the concept of God that actuality is not a predicate that can be inferred from the objective validity of a statement; the copula “is” has epistemic significance without necessarily having existential significance. But as epistemically significant, the “is” relates to being: it indicates the relation of given representations to the synthetic unity of apperception. The assertion, with the “is”, of objectivity in general, has an original connection to being as the initial subject-object relation. The relation of being is implicit in the “is”, whether it be used logically (“the triangle is scalene”) or existentially (“the triangle is”).

There is much important material in the Deductions that I have not discussed. But I have found that in both A and B, the production of a concept of objectivity is crucial to the establishment not only of the object but also of the subject. The production of this concept happens through the synthetic unity of apperception, and because both subject and object are established in and through this relation, I

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<sup>75</sup> CPR B138.

<sup>76</sup> CPR B141-2.

have equated it with the relation of being. This is supported by the fact that Kant suggests that, along with experience, judgments (of the forms *P is Q* and *P is*) are possible only when objectivity has been established. We can see that *before* this relation of being comes about, there is other activity going on: the syntheses of apprehension and reproduction in A, and straightforward receptivity in B. It seems that what is crucial to the relation which establishes objectivity and subjectivity, is spontaneity — spontaneity that is productive. The relation of being involves the activity of *productive* spontaneity on a manifold which, perhaps inevitably, we interpret to be a productive nature. The relation of being is an ongoing one, constantly upheld by the productive activity of human understanding reaching out to a world. Being, for Kant, is no static self-identical unity created by God; it is, rather, a constant activity which both unifies and differentiates disparate elements, a constant productive activity that is tied to human understanding.

This differs markedly from Heidegger's interpretation. For Heidegger, the original relation between subject and object established an ontological horizon of objectivity, within which the being of things was grasped and disclosed as produced permanent presence. I am arguing, by contrast, that the original relation produces both subjectivity and objectivity, and that this productive relation *is* being. The relation to the manifold is initiated by spontaneity in its productive activity. Because spontaneity relates to the manifold with a view to producing synthesis and objectivity, it does indeed perceive the manifold as a product; but it is the product of the intersection of formal and material conditions, a product of being itself. Being is the *productive* relation making beings possible, and not the mere producedness of beings.

### 3.4 The transcendental object as the ground of appearances

I will now move on to consider how the concept of the transcendental object, in the later sections of the *Analytic*, is thought to be the ground of appearances. To understand the type of grounding at issue here, it may be helpful to use Buchdahl's

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<sup>77</sup> The judgment "unicorns are white" has objective validity (capacity to be true or false) without having objective reality (actuality). See Allison, *Kant's Transcendental Idealism*, 135ff.

model of blank objectivity in general that is “coloured in” through the data of sensibility.

It seems clear from the A Deduction that the concept of the transcendental object is not that of an underlying thing, but rather the concept of an object in general that must accompany all intuitions. It is a singular, unified concept of an object in general that is thought to correspond to appearances in general; it is not a monad corresponding to individual appearances. It is a concept that necessarily accompanies intuitions in experience, and not one that is intellectually envisioned *after* experience. On the basis of the A Deduction, the transcendental object should be strongly distinguished from the thing in itself and the noumenon.

This is borne out in the A edition Phenomena and Noumena chapter. The concept of the transcendental object here is the same as the one from the A Deduction. In other words, Kant is not yet claiming that the transcendental object is the cause of appearances, but only that the concept of an object in general is necessary to objective representation.

All our representations are, it is true, referred by the understanding to some object; [...] a *something*, as the object of sensible intuition. But this something, thus conceived, is only the transcendental object; and by that is meant a something = X, of which we know, and with the present constitution of our understanding can know, nothing whatsoever, but which, as a correlate of the unity of apperception, can serve only for the unity of the manifold in sensible intuition. By means of this unity the understanding combines the manifold into the concept of an object. This transcendental object cannot be separated from the sensible data, for nothing is then left through which it might be thought. Consequently it is not in itself an object of knowledge, but only the representation of appearances under the concept of an object in general — a concept which is determinable through the manifold of these appearances.<sup>78</sup>

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<sup>78</sup> CPR A250-1.

Later in the chapter I will return to the question of whether and how the transcendental object is thought to be the cause of appearances. But this passage is not claiming anything as strong as that. Kant simply says that our representations are referred to the transcendental object as the object of sensible intuition. The transcendental object is not an object of knowledge, but is *the concept of an object in general*, or (put otherwise) the concept of “objectness”. Just as we saw in the A Deduction, this concept is a correlate of the unity of apperception, and serves to objectify the unity of the manifold in sensible intuition. By means of the unity of the manifold, the understanding combines the manifold into the concept of an object. The transcendental object is simply the concept of objectness which necessarily accompanies the sensible intuition, and which is determined through sensible intuition. This is why Kant says that it “cannot be separated from the sensible data”: without sensible data, the concept of objectness cannot be brought into play. There can be no “object in general” that lacks sensible data: without sensible data to unify, the unity itself would vanish. Similarly, every representation is referred to “the object of sensible intuition” because every representation includes the concept of an object accompanying the sensible data.

Kant goes on to say that the categories do not represent any special object given to the understanding alone, but only serve to determine the transcendental object — the concept of an object in general — through that which is given in sensibility.<sup>79</sup> Only in this way are appearances empirically known as *objects*. The categories, then, are not concepts that correspond to intelligible objects; rather, they formally determine the concept of an object in general through the data of sensibility. This is where Buchdahl’s realizational interpretation of Kant becomes particularly useful: the categories “realize” the transcendental object *as* this or that appearance by “colouring in” the blank concept of an object in general with properties such as reality, substantiality, and existence, *through* that which is given in sensibility. The concept of an object in general is realized as a particular phenomenon by virtue of its sensible data and this conceptual colouring-in.

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<sup>79</sup> CPR A251.

By contrast with the transcendental object, the noumenon would be that “special object given to the understanding alone” which is thought to be determined by the categories *without* reference to sensibility. Noumena would be mere objects of understanding that could nevertheless be given to an intuition, though not a sensible intuition: they could be given only to that intuition which creates what it intuits.<sup>80</sup> We might think that we are justified in dividing objects into phenomena and noumena, and the world into a world of the senses and a world of the understanding, based on the thought that the object that appears to the senses must also be non-sensibly intuitable by the understanding.<sup>81</sup> If we were to think that, Kant says, we could not assert that the categories of understanding apply only to possible experience; rather, we would have to recognize a “pure and yet objectively valid employment” of the categories in addition to their empirical employment.<sup>82</sup> But because human understanding is finite and non-creative, and it lacks the absolutely objective reality of intellectual intuition, it apprehends appearances only, and only through sensibility; it is not affected by objects but must *produce* the concept of an object in general to accompany representations. As we have seen, it is that produced concept of an object, and not any special intellectual object, that the categories determine (through sensibility).

Nevertheless, we continue to posit noumena along with the phenomena of experience — largely due, says Kant, to our insistence that appearances must be appearances *of* something.

The word appearance must be recognized as already indicating a relation to something, the immediate representation of which is, indeed, sensible, but which, even apart from the constitution of our sensibility [...], must be something in itself, that is, an object independent of sensibility.<sup>83</sup>

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<sup>80</sup> CPR A248-9. Kant does not distinguish between the negative and positive senses of the noumenon in this part of the A edition.

<sup>81</sup> CPR A249.

<sup>82</sup> CPR A250.

<sup>83</sup> CPR A252.

We require that an appearance refer to something in itself, apart from sensibility. The noumenon signifies the thought of this something in itself, reached by *abstracting* from everything that belongs to the form of sensible intuition, and assuming a non-sensible intuition to which this something could be objectively given. Only for a creative intellectual intuition could the noumenon be object: the assertion of the latter requires the assumption of the former. But we cannot establish whether such an intuition is possible. The noumenon then cannot be established as object; rather, it remains “a mere form of a concept” which does not refer to a “true object, distinguishable from all phenomena”.<sup>84</sup>

The difference in A between the noumenon and the transcendental object is principally that of their place in Kant’s dynamic process of the objectification of the world. The transcendental object is the concept of an object in general produced by transcendental apperception in unifying the manifold; this concept of an object is then “coloured in” by the categories through the data of sensibility. The concept of the transcendental object, while not itself sensibly intuitable, is inextricably bound up with sensible intuition. The concept of the noumenon, by contrast, is thought *after* experience, as an abstraction from all sensible intuition associated with a creative intellectual intuition. The concept of the noumenon is, in Buchdahl’s terms, an illegitimate realization of the transcendental object, for it attempts to “colour in” the concept of an object in general *without* sensible data, to be the object of a non-sensible intuition. This passage from the Amphiboly supports Buchdahl’s interpretation:

what we do is to think *something in general*; and while on the one hand we determine it in sensible fashion, on the other hand we distinguish from this mode of intuiting it the universal object represented *in abstracto*. What we are then left with is a mode of determining the object by thought alone — a merely logical form without content, but which yet seems to us to be a mode in which the object exists in itself (*noumenon*) without regard to intuition, which is limited to our senses.<sup>85</sup>

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<sup>84</sup> CPR A252-3.

<sup>85</sup> CPR A289 / B345-6, emphasis added.

When we think “something in general”, the transcendental object, *either* we sensibly determine it to generate an appearance *or* we attempt to determine it through thought alone, abstracted from sensibility, resulting in a merely logical form without content. Kant himself tells us that the indeterminate thought of “something in general” cannot be thought of as an illegitimately-determined noumenon:

The object to which I relate appearance in general is the transcendental object, that is, the completely indeterminate thought of *something* in general. This cannot be entitled *noumenon*; for I know nothing of what it [i.e. the transcendental object] is in itself, and have no concept of it save as merely the object of a sensible intuition in general, and so as being one and the same for all appearances.<sup>86</sup>

The fact that the transcendental object is thought to be one and the same for all appearances, in the above passage, helps us to understand how the transcendental object is distinguished from the thing in itself, which I have not discussed here. There is considerable scholarly debate over whether the transcendental object and the thing in itself refer to the same concept, as Kant suggests at A366, for example. However, because I believe that A366 refers to the *idea* of the transcendental object (to which I will return), I think that a simple equation of the *concept* of the transcendental object and the thing in itself would be misguided. The strongest case against this equation is the singularity of the transcendental object as opposed to a potentially infinite number of things in themselves. While the transcendental object is thought to be a single underlying unity relating to all appearances, things in themselves are thought to be individual items corresponding to each individual appearance. The transcendental object is general unified objectivity, “the object of a sensible intuition in general”, and not the being-in-itself of any particular appearance. In Buchdahl’s sense, it is

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<sup>86</sup> CPR A253, interpolation mine.



“transcendental” in that its conditions for realization are as yet held in abeyance; when these conditions are applied, the object is intuitable only through its sensible data, as appearance.

While the concept of the transcendental object is omitted from much of the B edition, we will see it retained in some sections of the Amphiboly that are the same in A and B. In the B edition of the Phenomena and Noumena chapter, only one reference to the transcendental object is retained:

Thought is the act which relates given intuition to an object. If the mode of this intuition is not in any way given, the object is merely transcendental, and the concept of understanding has only transcendental employment, namely, as the unity of the thought of a manifold in general.<sup>87</sup>

In this passage Kant says that in the absence of intuition, the understanding works with a merely transcendental object, referring its concepts to the unity of the thought of a manifold in general. This suggests that the concept of the transcendental object here is the same as that of the A Deduction and earlier passages of the A Phenomena and Noumena chapter: the transcendental object is the concept of the objectivity in general of the manifold. The passage goes on to argue that no object is determined through a pure category, and thus makes a case against the assumption of noumena in the positive sense (which I will discuss shortly).

Some commentators hold that in the B Phenomena and Noumena chapter Kant simply replaces the transcendental object with the noumenon in the negative sense.<sup>88</sup> However, the function of the latter does not correspond to that of the former, and this interpretation cannot, in any case, account for Kant’s retention of the transcendental object later in the text. Instead, I suggest that the concept of the transcendental object, as the concept of objectivity that makes appearances transcendently possible, means it no longer has immediate relevance to the B edition Phenomena and Noumena chapter. Since the chapter is intended to show

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<sup>87</sup> CPR A247 / B304.

<sup>88</sup> See, for instance, Allison, *Kant’s Transcendental Idealism*, 246.

that objects *of* experience must be represented as appearances and not as intelligible, and is therefore concerned with the limitations of sensibility and understanding *to* experience, it would be out of place to include a claim here about the concept of objectivity produced by spontaneity *before* experience. Indeed, if Kant wants to make clear that the object of this concept is in no way to be conceived as an intelligible entity *abstracted from* experience, he does well to remove discussion of it from this chapter; for in the context of denying our access to intelligible entities, it would be all too easy for the reader to assume that the ground of appearances *is* such an entity, and thus to assume that the existence of appearances is based on noumena or even Leibnizian monads.<sup>89</sup> The concept of the transcendental object is omitted from the Phenomena and Noumena chapter because it has nothing to do with speculation about intelligible entities. Rather, as I will show, this concept retains its A edition identity as the concept of the objectivity of appearances; only when it is thought as an *idea* is it thought heuristically to be an intelligible entity with causal power.

Kant's general notion of the noumenon in the B edition is quite similar to that in the A edition. When the understanding entitles an object phenomenon, it also generates a representation of an object in itself, and mistakenly forms a concept of this object which is thought to be knowable through the categories alone. The understanding

is misled into treating the entirely *indeterminate* concept of an intelligible entity, namely, of a something in general outside our sensibility, as being a *determinate* concept of an entity that allows of being known in a certain [purely intelligible] manner by means of the understanding.<sup>90</sup>

The generation of an indeterminate concept of a "something in general" outside our sensibility is, Kant suggests, a natural tendency of the understanding. But to treat this indeterminate concept as a determinate concept of an object is

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<sup>89</sup> Findlay, in fact, falls into this very trap! The entirety of his peculiar book, *Kant and the Transcendental Object*, rests on this mistake.

<sup>90</sup> CPR B307.

illegitimate, for such a treatment assumes an intellectual intuition for whom the object is determined. In this “positive” sense, the noumenon is thought to be “an *object of a non-sensible intuition*”. The merely “problematic” treatment of this concept, where we think of a thing “so far as it is *not an object of our sensible intuition*, and so abstract from our mode of intuiting it”, gives us the noumenon in the negative sense.<sup>91</sup> We are justified in using the term noumenon only in the negative sense, as a concept which limits sensibility and the categories to things regarded as appearances.<sup>92</sup>

The noumenon taken in the negative sense is the legitimate thought of the thing in itself: the thing *not* as it is for sensible intuition. But this does not correspond to the A edition transcendental object. Just like noumena in A, noumena in the negative sense in B are thought to be numerically plural or infinite, each noumenon corresponding to one thing in appearance. The noumenon in the negative sense is thought as the particular thing when it is *not* an object of sensible intuition; the A edition transcendental object is thought to be the singular, general, non-intuitable object *of* sensible intuition. That is, the noumenon in the negative sense is the appearance with its conditions of sensibility abstracted from it; the transcendental object is the concept of the unity underlying all appearances, and only manifesting itself through sensibility as individuated appearances. Implicit in each of these points of distinction is the fact that the transcendental object operates “earlier” in the dynamic of objective experience than does the noumenon in the negative sense. The latter requires an already experienced object from which to abstract; the former is thought to *allow for* objective experience. While the noumenon in the negative sense has certain characteristics in common with the transcendental object (such as inaccessibility to experience), it is thought in quite a different way and certainly does not replace it.

This claim is strengthened by looking at the Amphiboly of Concepts of Reflection, written in A and retained in B.<sup>93</sup> In this appendix to the Analytic, Kant

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<sup>91</sup> CPR B307.

<sup>92</sup> CPR A256 / B311-12.

<sup>93</sup> This fascinating but often overlooked section of the *Critique* has been made the subject of further inquiry in Longuenesse’s *Kant and the Capacity to Judge*. Adorno also draws attention to it in his Kant lectures: “it really provides the solution contained in Kant’s philosophy to what nowadays has become the fashionable problem of *Being*” — because, Adorno argues, in the Amphiboly Kant

rejects Leibniz's monadology on the basis of its treatment of things as objects of pure understanding, but also introduces the important notion of transcendental reflection. Without the reflection that *decides* that things are to be treated as appearances, we fall into the error of "confounding an object of pure understanding with appearance".<sup>94</sup> To avoid this error Kant introduces the concepts of reflection here: concepts that are imagined to have the same objective validity as the categories, but which are, in fact, "only concepts of a mere comparison of concepts already given, and therefore are of quite another nature and use".<sup>95</sup> The concepts of reflection are those which can be used to compare concepts logically, but which require transcendental reflection if they are to be applied to objects: concepts such as identity and difference and inner and outer cannot be established of *sensible* things by means of their concepts, and so require the specification of the cognitive faculty (i.e. sensibility) to which they belong.<sup>96</sup>

Leibniz applied these concepts to things without this specification, and thus failed to see that their application to the logical comparison of concepts does not guarantee application to the objective comparison of representations. The Amphiboly, then, is noteworthy for its subtle focus on matter: Leibniz's system fails, Kant says, partly because Leibniz does not recognize that material nature exceeds the logical laws that are suitable only to concepts. Leibniz's principle that realities never logically conflict with each other, for instance, cannot be extended beyond application to concepts, for we constantly experience the effects of material conflict among appearances — a conflict which (according to an *a priori* rule of material nature) has the original conflict of fundamental forces as its empirical condition.<sup>97</sup> Kant also points out that Leibniz's insistence on the absolutely internal nature of substances is hopeless, for we can know things in space only through their outer relations — in particular, "only through forces

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defines the thing as a set of relations rather than as an existent entity (36, 108-9). For Heidegger's view of the Amphiboly, see "Kant's Thesis about Being", *Pathmarks*, 357-63.

<sup>94</sup> CPR A268-70 / B324-6.

<sup>95</sup> *Prolegomena*, Ak. 326.

<sup>96</sup> CPR A269-70 / B325-6; A262 / B318. As Dieter Henrich puts it, "to arrive at genuine knowledge, it is necessary to control and to stabilize [intelligent] operations and to keep them within the limits of their proper domains. [...] The mind must implicitly know what is specific to each of its particular activities. [...] Therefore, reflection always takes place". See Dieter Henrich, "Kant's Notion of a Deduction and the Methodological Background of the First *Critique*", in Förster (ed.), 29-46, here at p. 42.

<sup>97</sup> CPR A273 / B329.

which are active in this and that space".<sup>98</sup> Kant identifies Leibniz's "inward nature" with the thing in itself.

In this context Kant refers to the concept of the transcendental object as the possible *ground* of matter, and not as its inward nature. With this, Kant clearly rejects the notion that the transcendental object is the thing in itself or any kind of intelligible inner nature of things. While for Leibniz the inward nature of things is intelligible, for Kant, seek as we might, we will only ever find "comparatively inward" appearances of outer sense at the heart of matter.<sup>99</sup> That is, matter is made up of nothing but matter. We should not, then, chase after phantom things in themselves, but we might legitimately speculate about a transcendental object that *grounds* appearances:

Matter is *substantia phaenomenon*. That which inwardly belongs to it I seek in all parts of the space which it occupies, and in all effects which it exercises, though admittedly these can only be appearances of outer sense. I have therefore nothing that is absolutely, but only what is comparatively inward and is itself again composed of outer relations. The absolutely inward [nature] of matter, as it would have to be conceived by pure understanding, is nothing but a phantom; for matter is not among the objects of pure understanding, and the *transcendental object* which may be the ground of this appearance that we call matter is a mere something of which we should not understand what it is, even if someone were in a position to tell us. For we can understand only that which brings with it, in intuition, something corresponding to our words.<sup>100</sup>

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<sup>98</sup> CPR A265 / B321.

<sup>99</sup> CPR A278 / B334: "The relation of sensibility to an object and what the transcendental ground of this [objective] unity may be, are matters undoubtedly so deeply concealed that we [...] can never be justified in treating sensibility as being a suitable instrument of investigation for discovering anything save always still other appearances — eager as we yet are to explore their non-sensible cause".

<sup>100</sup> CPR A277 / B333, emphasis added.

There is nothing in matter other than the outer appearances that we apprehend through ever more precise scientific inquiry. No inward nature or thing in itself is, or ever will be, accessible to the pure understanding. Thus it is not the inner but the *outer* relations of matter — specifically those that are “self-subsistent and permanent” — that make up the “primary substratum of all outer perception”.<sup>101</sup> Indeed, we saw in chapter two that it is the outer intuition of matter’s impenetrability that is crucial to experience. So the transcendental object, which may legitimately be thought, should not be identified with the phantom inward nature of things. Rather, we may think the transcendental object as the *ground* of the relations of matter — a ground which cannot be intuited on its own, but can only be understood when it brings with it the sensible data that “correspond to our words”.<sup>102</sup>

While this might be viewed as Kant’s speculation that the transcendental object is the intelligible cause of appearances, I interpret Kant as making a much weaker and merely transcendental claim here. What we see in this passage is a retention of the A edition *concept* of the transcendental object — the concept of an object in general — that is “coloured in” through sensible data. Kant claims in this section that matter consists solely of relations; if we abstract from these relations, “there is nothing more left for me to think”, and the possibility of a noumenal object determinable through mere concepts is ruled out.<sup>103</sup> Yet this does not rule out the possibility of a transcendental object, “something in general” that is thought to *accompany* the relations and bind them together transcendently. In so doing, the concept of the transcendental object makes it possible for an appearance as a whole (as opposed to a bundle of non-unified outer relations) to appear to the senses. This is clear from Kant’s definition, in this section, of an appearance:

It is certainly startling to hear that a thing is to be taken as consisting wholly of relations. Such a thing is, however, mere appearance, and cannot be thought through pure categories; what it

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<sup>101</sup> CPR A284-5 / B340-1.

<sup>102</sup> As Buchdahl puts it, the transcendental object is “not ‘unknown’, but rather ‘unsayable’” (KDR 15).

<sup>103</sup> CPR A285 / B341.

itself consists in is the mere relation of *something in general* to the senses.<sup>104</sup>

An appearance, then, is a bundle of relations which, when *objectified* by means of the concept of *something in general*, can be related *as a whole* to the senses. In order for an appearance to appear, its relations must be unified into a single thing, which is accomplished by use of the concept of the transcendental object (“something in general”). A thing consists of nothing but relations because the transcendental object is not a thing in itself or a noumenon in addition to those relations; it is simply the concept of an object in general that must accompany the relations in order for them to constitute an appearance. The concept of the transcendental object grounds appearances (and thus matter) in a strictly *transcendental* sense, as the condition for the possibility of there being appearances at all.

If we take the concept of the transcendental object to be nothing more than the concept of an object in general, there is no problem in reconciling its use here with its exclusion from the B Deduction. Even if (as the B Deduction suggests) the objectivity of knowledge requires *nothing more than* a formal concept of objectivity in general, it is occasionally useful to think of this formal concept as the entirely *indeterminate* concept of a transcendental object *in general*. This is one of those occasions: Kant wishes to show that we are justified in thinking of a transcendental object, but not a noumenon (which would be the *determinate* concept of an intelligible *entity*), as the ground of appearances. And if the concept of the transcendental object is equivalent to the concept of the objectivity of appearances in general, this move is unproblematic, for the grounding here is merely a *transcendental* grounding. The transcendental object grounds the appearing of the appearance because it constitutes the objectivity of the appearance. Objectivity is what distinguishes an appearance from a mere representation; the transcendental object may be said to ground appearance insofar as the concept of objectivity in general is a condition for the possibility of appearance.

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<sup>104</sup> CPR A285 / B341, emphasis added.

The concept of objectivity in general is *grounding* because it is thought as the concept of an indeterminate transcendental object in general, and thus as a condition for the possibility of appearances in general. It is *not* thought as an intelligible object determinable through pure categories. Nor is it thought to be that which affects us with sensations, for this concept is a *transcendental* condition of appearances, and not a material or noumenal one.

### 3.5 The idea of the transcendental object

I have suggested that the concept of the transcendental object is characterized in the Analytic as the ground of appearances, in the sense of being their condition of possibility. It seems to me entirely consistent with Kant's project to argue that objectivity in general is a condition of possibility of there being appearances; as long as we interpret the concept of the transcendental object in this way, there is no need to speculate that Kant thought that intelligible entities underlie and cause each individual appearance. However, it is now time to treat of those instances in which Kant undeniably says that a transcendental object is the cause of appearance, and equates this term with the thing in itself or noumenon in the negative sense.

This is evident in a number of the passages quoted in section 3.1 above, and also in numerous other parts of the Dialectic. For instance:

What matter may be as a thing in itself (transcendental object) is completely unknown to us [...].

The non-sensible cause of [our] representations is completely unknown to us, and cannot therefore be intuited by us as object. [...] We may, however, entitle the purely intelligible cause of appearances in general the transcendental object, but merely in order to have something corresponding to sensibility viewed as receptivity. To this transcendental object we can ascribe the whole



extent and connection of our possible perceptions, and can say that it is given in itself prior to all experience.

Since [appearances] are not things in themselves, they must rest upon a transcendental object which determines them as mere representations, and consequently there is nothing to prevent us from ascribing to this transcendental object, besides the quality in terms of which it appears, a causality which is not appearance, although its effect is to be met with in appearance.<sup>105</sup>

These passages clearly refer to an intelligible object that causes appearances, and not to the concept of objectivity in general that is their transcendental ground. Kant seems not only to conflate the transcendental object with the thing in itself, but also to assert that the transcendental object is the *cause* of appearances. These claims pose significant problems to the interpretation I have developed up to now. However, I have a solution to propose.

Other commentators have also noted the problem that these later passages appear to work with a conception of the transcendental object different from that of the A Deduction and Phenomena and Noumena chapter. This leads to the conclusion that Kant uses the term “transcendental object” in at least two different ways: first, as the “something = X” of the A Deduction, the concept of an object in general that necessarily accompanies sensible data; and second, as the thing in itself, the thought of an object abstracted from all sensible conditions.<sup>106</sup> If we wish to read these passages as identifying the transcendental object with the noumenon in the negative sense, then we must take the view that Kant sometimes uses the term “transcendental object” to mean “thing in itself”. This view, however, leaves us without an explanation as to why Kant sometimes makes this equivalence and at other times denies its validity. To resolve this problem, many argue that Kant *always* thinks of the transcendental object as equivalent to the

<sup>105</sup> CPR A366; A494 / B522; A539 / B567.

<sup>106</sup> See Allison, *Kant's Transcendental Idealism*, 244-5. Allison distinguishes “at least two apparently quite distinct ways” in which Kant uses the term “transcendental object” (244). However, he does not draw the conclusion that the two ways are distinguished by the faculties

noumenon in the negative sense or thing in itself, and see these passages as evidence for that point.

However, I have already argued against the conflation of these two terms, based on what I see to be Kant's more consistent position in the *Transcendental Analytic*. The thing in itself or negative noumenon is an individual object *not* as it is for sensible intuition. The transcendental object is the *concept of objectivity in general*. Furthermore, as I have shown, Kant specifically suggests that the concept of the transcendental object is not to be conflated with the Leibnizian "inward nature" or "in itself" of things. There is no evidence in the *Analytic* (aside from one problematic passage which I will address shortly) that Kant thinks of the concept of the transcendental object to be equivalent to the thing in itself or noumenon in the negative sense. All such evidence occurs in the *Dialectic*, where, as I shall argue, Kant uses the term "transcendental object" in quite a different way. Indeed, in order to make sense of these passages, and of Kant's use of the term "transcendental object" in the *Dialectic*, we need to introduce a distinction between the *concept* of the transcendental object and the *idea* of it.

I would like to argue that there is a fundamental shift in Kant's use of the term when he moves from the *Analytic*, which deals with the faculty of understanding, to the *Dialectic*, which deals with the faculty of reason. The concept of the transcendental object, as we have seen, is the understanding's concept of an object in general and is thought as the condition of possibility of appearances; it is employed throughout the *Analytic*. The *idea* of the transcendental object, however, is an *idea of reason* that is *based* on this concept. It is the idea of an intelligible cause of appearances, and is employed throughout the *Dialectic*.

There is evidence to back this up both in the Antinomies and in a section that Kant calls "The Final Purpose of the Natural Dialectic of Human Reason".<sup>107</sup> In the *Dialectic*, reason is applied to the concepts of the understanding, unifying and ordering them according to its principle to seek the unconditioned for the conditioned knowledge obtained by the understanding.<sup>108</sup> The solution to the problem (in the Paralogisms and Antinomies) that reason is unable to reach the

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which use them — understanding and reason — an interpretation which I think better solves the problem Allison encounters.

<sup>107</sup> This section starts at *CPR* A669 / B697.

unconditioned in the sensible world, is the idea of an intelligible substrate in which the series of conditions may be thought to be reconciled. Now Kant explains that in the antinomies, “reason is applied to the objective synthesis of appearances”.<sup>109</sup> Reason synthesizes or brings together appearances into a series of conditions. But the possibility of an *objective* synthesis, as opposed to a merely subjective one, rests on the objective *affinity* of appearances that Kant established in the A Deduction, and this affinity, as we have seen, is made possible by the concept of objective unity that is the same for all appearances. This suggests that reason takes up the concept of objective unity in general — the *concept* of the transcendental object — which is already thought to underlie all appearances. Reason applies to this concept its demand for unconditioned unity, and thus establishes an *idea* of a transcendental object. From the understanding’s concept of objective unity in general, employed for the sake of the possibility of knowledge, reason generates the idea of an unconditioned intelligible cause for the sake of grounding all knowledge that the understanding acquires. “We then, as it were, derive the object of experience from the supposed object of this idea, viewed as the ground or cause of the object of experience”.<sup>110</sup>

Kant gives an account of how we reach this idea of a transcendental object. Ideas in general are derived from reason, which

free[s] a concept of understanding from the unavoidable limitations of possible experience, and so endeavour[s] to extend it beyond the limits of the empirical, though still, indeed, in terms of its relation to the empirical.<sup>111</sup>

The concept that is freed in this case is the concept of objective unity in general. This concept is extended beyond the bounds of possible experience and thought, by reason, to be the supersensible “object” underlying appearances: the idea of an unconditioned unity underlying all matter and thought. We can see that the *concept* of the transcendental object, as the projected objective unity of the

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<sup>108</sup> CPR A306-7 / B362-4.

<sup>109</sup> CPR A406-7 / B433.

<sup>110</sup> CPR A670 / B698.

sensible manifold, is quite appropriate to be made into the *idea* of a projected supersensible unity of the entirety of the world. Furthermore, Kant tells us that reason's primary task is to apply a regulative principle of systematic unity to all empirical knowledge — a principle that comes from the unity of reason itself.<sup>112</sup> Just as the understanding produces synthetic unity in the manifold, reason produces unity in empirical knowledge, and it does this by means of the idea of an object:

[R]eason cannot think this systematic unity otherwise than by giving to the idea of this unity an object; and since experience can never give an example of complete systematic unity, the object which we have to assign to the idea is not such as experience can ever supply. This object, as thus entertained by reason [...], is a mere idea; it is not assumed as a something that is real absolutely and *in itself*, but is postulated only problematically (since we cannot reach it through any of the concepts of the understanding) in order that we may view all connection of the things of the world of sense *as if* they had their ground in such a being.<sup>113</sup>

On the previous page, Kant calls this object “the transcendental object of our idea”.<sup>114</sup> Earlier in the text Kant says that cosmological ideas have a purely intelligible object, “and this object may indeed be admitted as a transcendental object, but only if we likewise admit that [...] we have no knowledge in regard to it [...]. It is a mere thought-entity”.<sup>115</sup> It is to this idea of an unconditioned unity that the transcendent ideas of a soul, of a world-whole, and of free causality are attached. The idea of God, as discussed in chapters one and two, is also attached to this idea.

The *idea* of the transcendental object, then, is the idea of an underlying supersensible unity which can be thought to be the intelligible cause of

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<sup>111</sup> CPR A409 / B436.

<sup>112</sup> CPR A680 / B708.

<sup>113</sup> CPR A681 / B709.

<sup>114</sup> CPR A679 / B707.

<sup>115</sup> CPR A565-6 / B593-4.

appearances, but which must never be assumed to be actual. Kant says that the only way we can think this object is by use of analogy, employing “pure concepts of things in general” and extending them beyond experience. Reason extends the concept of the transcendental object beyond experience and uses it as a regulative principle. This is how we can view the transcendental object as being the non-sensible cause of representations, and as being the source of free causality.<sup>116</sup> The fact that the idea of the transcendental object is regulative and not constitutive means that we need not worry that Kant is sneaking in non-phenomenal substances with non-phenomenal causality. The idea of a transcendental object is only a means of thinking an unconditioned ground for appearances, and has no ontological status.

It should be clear that Kant does not conflate the idea of the transcendental object with the noumenon in the *positive* sense: it is not characterized as a determinate concept of an entity that allows of being known in an intelligible manner. However, Kant does explicitly relate the idea of the transcendental object to the concept of the thing in itself or noumenon in the negative sense, sometimes suggesting that they are equivalent. In the Phenomena and Noumena chapter, Kant defined the noumenon in the negative sense as the indeterminate concept of an intelligible entity not available to our sensibility. That definition also applies to the idea of the transcendental object. The difference is that the noumenon in the negative sense is an abstraction thought by the understanding in order to set limits to its own activity in experience, whereas the idea of the transcendental object is a principle employed by reason in order to seek the unconditioned cause for the whole of experience. That is, the concept of the noumenon in the negative sense makes us understand that our faculties are limited to possible experience, while the idea of the transcendental object allows us to think the unconditioned ground of that experience. The noumenon in the negative sense, or thing in itself, was also characterized as individuated for particular appearances, whereas the idea of the transcendental object, like the *concept* of the transcendental object, is thought to be a singular unified substrate. Thus while the idea of the transcendental object is similar to the noumenon in the negative sense in terms of its indeterminacy and

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<sup>116</sup> See especially *CPR* A538 / B566.

inaccessibility, our characterization of this *idea* is based not on the noumenon but on the *concept* of the transcendental object.

I have argued that Kant distinguishes the concept of the transcendental object from the idea of it, and that only reason's idea of the transcendental object can be thought as a cause of appearance. There is one passage, however, that presents a problem for my interpretation, which I will discuss at some length.

In the process of warning [sensibility] that it must not presume to claim applicability to things in themselves but only to appearances, [the understanding] does indeed think for itself an object in itself, but only as transcendental object, which is the cause [*Ursache*] of appearance and therefore not itself appearance, and which can be thought neither as quantity nor as reality nor as substance, etc. (because these concepts always require sensible forms in which they determine an object). We are completely ignorant whether it is to be met with in us or outside us, whether it would be at once removed with the cessation of sensibility, or whether in the absence of sensibility it would still remain. If we are pleased to name this object noumenon for the reason that its representation is not sensible, we are free to do so. But since we can apply to it none of the concepts of our understanding, the representation remains for us empty, and is of no service except to mark the limits of our sensible knowledge and to leave open a space which we can fill neither through possible experience nor through pure understanding.<sup>117</sup>

This passage makes clear that the transcendental object is not to be conflated with the noumenon in the positive sense, but is rather to be thought to be related to the noumenon in the negative sense. However, this passage is problematic for my interpretation, for while Kant seems to be discussing the *idea* of the transcendental object here, the passage occurs in the Amphiboly (i.e. in the Analytic), and refers

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<sup>117</sup> CPR A288-9 / B344-5.

not to reason but to the understanding. It appears, in this passage, that Kant is talking about the understanding's *concept* of the transcendental object, suggesting that it be conflated with the noumenon in the negative sense, and asserting that it is thought as the cause of appearance.

I have argued that in the *Analytic* we encounter only the *concept* of the transcendental object, which is thought to ground appearances in a transcendental sense: the concept of an object in general is the condition of possibility of there being appearances at all. My first strategy, then, is to interpret this passage according to Kant's consistent use in the *Analytic* of the concept of the transcendental object. This means that we must read the term "transcendental object" in this passage as referring to the understanding's *concept* of an object in general, which "causes" appearances to appear in the sense of being the transcendental condition of all appearing. We might then interpret the passage as follows. The understanding thinks for itself the *entirely indeterminate concept* of a transcendental object in general, which is equivalent to the concept of objectivity in general. This concept is "the cause of appearance and therefore not itself appearance" because it is the condition of possibility of appearance: this concept *brings it about* that appearances appear to us. We do not know whether this concept is "in us or outside us" because, as the correlate of the unity of apperception that is thought as objectivity in general, it is in a sense *both* in us and outside us. We *produce* the concept of the transcendental object as the concept of the *objectivity* of objects in order that objective appearances may be brought about. And of course, we do not know if in the absence of sensibility this concept would still remain or have any relevance, for we do not know whether a non-sensible faculty of intuition requires a concept of objectivity. The *representation* of the transcendental object "remains for us empty", because there is no *object* to be represented here: there is simply a concept which marks the limits of sensible knowledge because sensible knowledge cannot operate *without* this concept.

I admit that this interpretation is somewhat tenuous, and that it requires us to understand Kant's use of the term "cause" here in a peculiar way: on this interpretation, the transcendental object is the "cause" of appearance in the same way that the categories are the "cause" of experience. This cannot be thought as the causality of the second analogy but would have to be taken to mean something

like a transcendental condition, which is not a way in which Kant uses the term *Ursache*.

My second strategy is to interpret this passage on the assumption that Kant is referring to the *idea* of the transcendental object. All other passages where Kant refers to the transcendental object as the cause of appearance occur in the Dialectic, where Kant is concerned with reason and its ideas, so we can easily see that Kant is using the *idea* of the transcendental object to fulfill this role. However, the Amphiboly passage with which we are concerned is in the Analytic, not the Dialectic. As an appendix to the Analytic, it is very much a transitional section. It could be the case that Kant is introducing the *idea* of the transcendental object as an intelligible cause at this point in the text in order to draw out the contrast between this idea and the thought of a positive noumenon. Thus in the process of limiting sensibility to appearances, the understanding does think for itself an intelligible *cause* of appearance, but this cause, because it is merely an idea, is not thought to be knowable through the categories. We cannot know whether it is in us or outside us, or whether it would still remain in the absence of sensibility, because, as a mere idea, it has no determinate object. This is also why “the representation remains for us empty” and why this emptiness leaves open a space which cannot be filled through experience.

The problem with this interpretation of the passage is that Kant says that it is the *understanding* that thinks this intelligible cause; if Kant were referring to the idea of the transcendental object here, he should ascribe that role to reason (as he does in the Dialectic proper). It is very clear in this passage, and in the context, that Kant is talking about the understanding.

Neither of my interpretations of this Amphiboly passage is entirely satisfactory. However, it should be noted that there is no consensus to be found on this passage in the secondary literature; it poses problems for every interpretation of Kant that seeks to find a consistent way of understanding the term “transcendental object” in the *Critique*. The third possible solution — in fact, the most tempting one — is to decide that Kant simply made a mistake in using the term “transcendental object” at A288 / B344. We could then assert that what he is really talking about is the noumenon in the negative sense, to which he refers in the paragraphs surrounding this one. While this interpretation accounts for most of



what Kant says in this passage, it does throw us back on the problem of noumenal causality and how a negative noumenon, when thought only by the understanding as a limiting concept, can be thought to cause appearance.<sup>118</sup>

On balance, I think that my interpretation of the transcendental object as concept and idea is a consistent and convincing one, and I am willing to accept the fact that this single passage is an odd piece that does not fit in with the puzzle unless we twist Kant's words or decide that he simply failed to correct his own text.

What an analysis of this passage does make clear, however, is the extreme closeness of Kant's two uses of the term "transcendental object". The idea of the intelligible cause is simply the concept of the transcendental object, the concept of objective unity in general, moved up to the level of reason. Reason extends the *concept* of objective unity — the transcendental condition of appearances — into the *idea* of an object which is thought to be the *intelligible* cause of appearances. My suggestion that we understand the transcendental object as both concept and idea helps us to make some sense of the Kantian problem of affection. Once we view the intelligible cause of affection as a merely regulative idea posited by reason, we need not worry about the understanding positing determinate entities that "violate any acceptable requirement of intelligibility".<sup>119</sup> On my interpretation, the intelligible cause of affection has the same status as God: an idea of reason, unknowable but necessarily assumed in order that we may explain the occurrence of sensation and thus view nature and mind as a coherent system. Just as the concept of the transcendental object makes possible knowledge of nature in general, the idea of the transcendental object makes possible an explanation of knowledge as part of a system of nature.

In the B Deduction, Kant had raised the question as to how we are to think that an intuitable manifold is given before experience:

In the above proof there is one feature from which I could not abstract, the feature, namely, that the manifold to be intuited must

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<sup>118</sup> For a position on this, see Nicholas Rescher, "Noumenal Causality", in Lewis White Beck (ed.), *Kant's Theory of Knowledge* (Boston: D. Reidel Publishing, 1974), 175-83.

<sup>119</sup> Strawson 41-2.

be given prior to the synthesis of understanding, and independently of it. How this takes place, remains here undetermined.<sup>120</sup>

This question cannot indeed be answered with certainty, but it is answered speculatively by the application of reason to the understanding's concept of the transcendental object. In order to explain how things affect our sensibility, we may *extend* the concept of the transcendental object into an idea of the intelligible cause of appearances, given in itself prior to experience. This idea explains the possibility that matter appears to us, that spontaneity acts freely, and that on an intelligible level, matter and spontaneity may be one and the same. The idea of the transcendental object is an explanation for what may underlie the two types of productivity needed to generate knowledge: the productivity of existence, and the productivity of the spontaneity of mind. It is the relation of these two types of productivity that is equivalent to being; what is merely thought to underlie them is, as *ens rationis*, quite literally nothing.<sup>121</sup>

We can finally understand the passages from the A edition Paralogisms quoted in the introductory section of this chapter, where Kant speaks of “the transcendental object which underlies outer appearances [and] inner intuition”.<sup>122</sup> Kant is using the *idea* of the transcendental object, which may be thought to be the cause of appearances and also the cause of our thinking selves. This idea of an underlying cause joining the thinking self with matter is *thought* to make possible the relation between spontaneity and nature. In fact, what makes possible the idea of an underlying unity is the original relation of spontaneity and the manifold, the synthetic unity of apperception and the concept of objectivity in general. The relation of being, in which the manifold is unified by a productive spontaneity, brings about the concept of unified objectivity, on which the idea of a unified underlying object is based. Just as the relation of being establishes both subjectivity and objectivity, the idea of an underlying unity is thought to account for both freedom and natural causality.<sup>123</sup> The idea of this underlying unity comes

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<sup>120</sup> CPR B145.

<sup>121</sup> CPR A290 / B347.

<sup>122</sup> CPR A379-80.

<sup>123</sup> See especially CPR A538-41 / B566-9.

from the relation of being — the fact that there is an ongoing relation between the manifold and our productive spontaneity.

### 3.6 Conclusions on the ontology of the first *Critique*

I will finish this chapter by drawing together the findings on the transcendental object with what was said about being and production in chapter one, and what was said about material nature in chapter two. We will be able to see how the ontology of the first *Critique* is a productive ontology.

The B Deduction showed that it is essential for experience that spontaneity is already *in* the world, in a constant synthetic relation to what the senses have already “received” as spatio-temporal. The central point is that being, for Kant, is this relation between a spontaneous subject and the world it has received through the senses. In and through this relation, the objectivity of the object and the subjectivity of the subject are produced: the former through application of the concept of the transcendental object, and the latter as consciousness of self-identity, through the generation of the analytic unity of apperception. Both object and subject acquire *being* through this relation: the being of an object is its relatedness to a subject, *as* an object, and the being of a subject is its relatedness to objects, *as* a self-identical subject. Being is a productive relation through which beings have being.

The relation between the spontaneous subject and the received world is the relation of the synthetic unity of apperception. Transcendental apperception is what first synthesizes and gives unity to the manifold, thus producing objectivity and subjectivity. The relation of the apperceptive synthesis, then, is the productive relation of being. The concept of the transcendental object — the concept of objective unity in general — is integral to this relation, as it is projected by spontaneity onto the received manifold. As the concept of the objective unity or “objectness” of things, the concept of the transcendental object is the transcendental ground of the appearing of appearances, and thus the condition of possibility of there being appearances at all. Establishing the manifold as objective appearance — establishing the *being* (i.e. subject-relatedness) of the world — is

the necessary precursor to experience and cognition of things in the world. Only through the establishment of the productive relation of being can the subject go on to *produce* a formally determined “nature in general” through the categories, and thus to *produce* natural objects as “existent” and “productive”. The relation of being makes knowledge possible, and also makes *formally* possible the *existence* of things.

The *being of a thing*, then, is its relatedness to a subject, as an object; its being is its potential to be experienced, its *formality* in general. The being of a subject, conversely, is its relatedness to objects, its potential to experience, its *materiality* in general. (Remember that being, on Kant’s definition, is not equivalent to *essence*.) This is actually the opposite of what Heidegger argues: Heidegger says that the being of things, for Kant, is their producedness by God to be *independent* of the subject; that is, their being is their sheer materiality. Heidegger claims further that the being of things is disclosed to the subject in the apperceptive relation. Heidegger does not recognize that for Kant, the being of things is not materiality in-itself, but is the relation in which materiality is formalized. The apperceptive relation is not simply the “horizon” or space within which the materiality of things is disclosed, but is the relation that first *formalizes* materiality, and *gives* being to things. Heidegger is wrong to say that being, for Kant, is equivalent to the producedness, presence, or materiality of things. *Being* is the constantly interactive and productive apperceptive *relation* between formality and materiality, while the *being of things* is their subject-relatedness, their *formalized* materiality.

It is undeniable that for Kant there is another, deeper relation underlying this relation of being, and that is the affective relation between the world as we can never know it, and sensibility. This relation is the unknowable one that can only be explained through the regulative ideas of reason. The *idea* of the transcendental object is the idea of an intelligible cause of representations, that is used in order that we may have an explanation for the possibility of freedom and for the common origin of matter and thinking beings. As the *idea* of a purely intelligible object, this intelligible cause has the ontological status of a mere thought-entity or *ens rationis*. It has no objective validity and cannot be thought to exist. The idea of the transcendental object is employed as an explanatory ground, and not as an

existential ground. We must entertain the idea of an intelligible cause underlying both matter and the self, allowing for the productivity of both, but this idea is not to be taken as an actually existing ground of existence.

Kant's existential ontology in the first *Critique* and *Metaphysical Foundations*, then, is located purely at the level of material production: existence, as far as we can know it, is grounded by nothing other than itself, thought as the ongoing conflict of fundamental forces. Existential ontology cannot explain what makes existence possible, for it is necessarily circumscribed within the epistemological ontology that cannot approach existence outside of the relation of being. Indeed, the "existence" of materiality is *not existence* unless it can enter into the relation of being, the initial relation to formality, and thus become an object of possible experience. It is in this sense, and this sense only, that being is a condition for the possibility of existence. At the same time, the existence of materiality, before it is formally determined as such, is a condition for the possibility of the relation of being. There can be no being without existence, and no existence without being; just as there can be no epistemological ontology without existential ontology, and vice-versa. Existence requires epistemological ontology as its formal structure, while epistemology requires existential ontology as its material base.

Kant's ontology, made up of existential and epistemological elements, is a productive ontology. It is not based on a notion of substance, permanent presence, or otherwise static being, but rather on a complex of productive relations: productive spontaneity in its relation to the manifold, producing a productive material nature. Kant's ontology is a productive ontology based on a notion of transcendental production, and leading to a notion of material production; it is not merely, as Heidegger suggests, an ontology of the extant. Being is not equivalent to the Greek notion of *ousia* as permanent presence, but is perhaps closer to Heidegger's own late notion of being that *grants* presence.<sup>124</sup> Being is the ongoing productive relation of productive spontaneity and the received world. Through this relation the world is *produced as* a productive nature, characterized by motion, action, and force. It is, perhaps, inevitable that productive spontaneity determines

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<sup>124</sup> Heidegger, "Kant's Thesis About Being", *Pathmarks*, 362.

the world according to a productive comportment, by analogy with its own productivity; this will be addressed in the next chapter.

### Chapter 3 Summary

In this chapter I have focused on the epistemic side of Kant's ontology, addressing two questions: in what does the subject-object relation of being consist? How does Kant characterize the ground of appearance and affection? I considered a number of approaches commentators have taken to Kant's problem of affection, rejecting the standard "two worlds" and "two aspects" views. Buchdahl and Heidegger were found to provide useful interpretive strategies for approaching this problem. I found that the transcendental object can be used to answer both of the questions above, first as a concept, and second as an idea. As a concept of understanding, the transcendental object is equivalent to objectivity in general, and is the product of the subject-object relation of being. This conclusion followed an analysis of the Deductions in which I determined the relation of being to come about with the synthetic unity of apperception. I also examined the phenomena and noumena chapter to show that the concept of the transcendental object cannot be conflated with either the noumenon or the thing in itself.

This concept of the transcendental object, of objectivity in general, was thought to be the ground of appearances insofar as it is their condition of possibility. This was both confirmed and problematized by analysis of a number of passages from the Amphiboly. I explained that the *idea* of the transcendental object, by contrast, refers to an intelligible cause or supersensible substrate of appearances as a totality. This idea is used speculatively to think a ground for the possibility of the relation of existence and the thinking subject, and thus as a ground for the possibility of being. As an idea of reason, based on the concept of objectivity in general and extended beyond the bounds of possible experience, this idea cannot be thought to have any ontological status; it falls outside of the bounds of ontology and of being. I confirmed that being is thought as subject-object relationality for Kant, adding that we can now think the relation of being in terms of the relation of apperceptive synthesis. Being is the relation between a

spontaneous subject and the world it has received through the senses, the relation that produces objectivity and subjectivity, and gives things their being — their relatedness to a subject. Heidegger is wrong to think of being for Kant as the producedness or sheer materiality of things, for their being is, in fact, their *formality* in general.

## Chapter 4

### Representation and life: the *Critique of Judgment*

#### 4.1 Purposiveness and reflective judgment

I have argued that for Kant, being is the productive relation between productive spontaneity and the received world. Nature may not be in itself productive, but we do experience it to be an ongoing productive process, based not on atomic substance but on the conflict of fundamental forces. This was addressed in chapter two. That spontaneity is productive is shown by the synthesizing activity it engages in when it comes into contact with the world through outer sense. This was discussed in chapter three. In chapter one it was shown that being itself is understood by Kant to be the original relation between subject and object that allows both for predicative and existential positing. This relation is a productive relation because it constantly establishes both subjectivity and objectivity, and is the basis from which all knowledge develops. This was addressed in chapter three. Thus the major part of my argument has been developed in the three preceding chapters: Kant's ontology, in which being is seen to be the ground of knowledge and the ground of the determination of things as existing, is a productive ontology. I have also suggested that Kant understands something like a productive comportment to belong to the nature of subjectivity and to predetermine the subject's relation to the world, and that this comportment might be based on the productive spontaneity of the subject.

In this fourth chapter, I will show how in the *Critique of Judgment*, Kant makes explicit the two themes I have suggested are implicit in his other texts: the relation of being, and the subject's productive comportment. These two themes are discussed in terms of aesthetic judgment and representation on the one hand, and teleological judgment and life on the other. Aesthetic judgment and the experience



of beauty are nothing other than a reflective response to the relation of being, and its possibility and contingency;<sup>1</sup> teleological judgment, meanwhile, is a way of making sense of the existence of nature in its fundamental incomprehensibility, through the comportment of productivity or “life”. In the third *Critique* we see that we need to take a productive comportment towards the world if we are to view nature as a lawful system. While the Critique of Aesthetic Judgment discusses the productive relation that grounds knowledge, the Critique of Teleological Judgment discusses how nature must be interpreted to be a productive nature in order that it answer to the systematizing demands of reason. In the *Critique of Judgment*, productive spontaneity and productive nature are compared or “held up to” one another, and found to be suitable for relationality.<sup>2</sup>

Aesthetic and teleological judgment are two species of what Kant calls the power of reflective judgment. In this first section, I will introduce Kant’s conception of reflective judgment and its *a priori* principle of the purposiveness of nature.

In chapter two, I distinguished three ways in which nature is determined in the Kantian system. Those three ways were characterized as follows:

1. Nature is transcendently ordered as “nature in general” by the categories and principles of understanding, such that experience is possible. This is the pure natural science of the Transcendental Analytic, and is concerned with transcendental conditions of experience.
2. Nature is metaphysically grounded with respect to its material conditions of possibility through the construction of the concept of matter, such that a special natural science is possible. The lawlike “nature in general” is specified in the *Metaphysical Foundations of Natural Science* through the empirical concept of matter. Specific material laws can be formulated in accordance with the transcendental principles. Although these are empirical

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<sup>1</sup> Jeffrey Maitland argues along similar lines, though his stance is more strictly Heideggerian than I am happy with. See “An Ontology of Appreciation: Kant’s Aesthetics and the Problem of Metaphysics”, *Journal for the British Society of Phenomenology* 13:1 (1982), 45-68. Better on this topic is Paul Crowther, “Fundamental Ontology and Transcendent Beauty: An Approach to Kant’s Aesthetics”, *Kant-Studien* 76:1 (1985), 55-71.

<sup>2</sup> Kant describes reflective judgment as “holding representations up to [...] one’s own cognitive power” in the First Introduction to *CJ*, Ak. 211’. (Note that page references to the First Introduction are indicated by a prime [’].)

concepts, they are analyzed *a priori*, without reference to any particular experience.

3. Nature is ordered according to reason's regulative principles such that it can be viewed as a purposive empirical system. This third determination of nature operates on nature as experienced: empirical nature is ordered according to reason's regulative principles, its systematicity ultimately explained by reference to the idea of God.

Broadly speaking, it is this third determination that Kant is concerned with in the *Critique of Judgment*. Experience in general requires that nature be subject to the *a priori* universal laws of the understanding, as laid out in the *Analytic*. But these laws (of substantiality, causality, etc.) concern only the possibility of *nature in general*; particular instances and events in nature are left undetermined by these general laws.<sup>3</sup> There must be particular empirical principles governing these particular instances and events. The understanding views these principles as contingent, but without them, "there would be no way for us to proceed from the universal analogy of a possible experience as such to the particular one".<sup>4</sup> So it is necessary for us that these principles be viewed as laws.

Furthermore, the particular instances and events in nature must be thought to form a system. The transcendental concept of nature in general implies that nature as a whole is systematic, for it implies that all of nature can be known, and thus that empirical nature has an order that allows us to acquire empirical concepts.<sup>5</sup> However, from the fact that the transcendental laws of understanding require particulars in nature to be connected systematically, it does not follow that nature is a system that the human cognitive power *can grasp*.<sup>6</sup> Natural instances, events, and forms might be so diverse that we could never bring them under a common principle, and never reach any systematic unity. Not only must we regard nature as systematic; we must regard nature as systematic in a way that can be made manifest to us as a system of experience.

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<sup>3</sup> *CJ* Ak. 179-80.

<sup>4</sup> *CJ* Ak. 184.

<sup>5</sup> *CJ* Ak. 180; §61, Ak. 359; and First Introduction, Ak. 208'-9'. I have also made use of Werner Pluhar's Introduction to the *CJ*, lxxvi-lxxvii.

<sup>6</sup> *CJ* First Introduction, Ak. 208'-9'.

[I]f we think of nature as a system (as indeed we must), then experience [too] must be possible [for us] as a system even in terms of empirical laws. Therefore it is subjectively necessary [for us to make the] transcendental *presupposition* that nature [as experience possible for us] does not have this disturbing boundless heterogeneity of empirical laws and heterogeneity of natural forms, but that, rather, through the affinity of its particular laws under more general ones it takes on the quality of experience as an empirical system.<sup>7</sup>

Thus our transcendental laws and the coherence of experience in general require that nature have a certain order in its particular empirical rules; the understanding must think of these contingent rules as necessary laws. These rules can only be regarded as necessary by virtue of “some principle of the unity of what is diverse”.<sup>8</sup> Understanding asserts *that there is* a system in terms of such a principle, but does not know this principle; it does not know what sort of connection there is among the particular things it experiences.

In the first *Critique*, the task of finding coherence and systematicity in experience was assigned to reason: reason’s regulative principle of homogeneity, for instance, was said to allow for the organization of experience and thus for the possibility of empirical concepts.<sup>9</sup> In the *Critique of Judgment*, however, Kant treats of the faculty of reason almost solely in its practical, constitutive role, and not in its theoretical, regulative role; theoretical reason’s task of referring experience to regulative principles of coherence and systematicity has been reassigned to the power of reflective judgment.<sup>10</sup> The power of judgment generally is said to mediate between the understanding, with its constitutive *a priori* principles for cognition, and practical reason, with its constitutive *a priori* principles for the power of desire.<sup>11</sup> The power of judgment has a principle of its

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<sup>7</sup> *CJ* First Introduction, Ak. 209’; interpolations Pluhar’s.

<sup>8</sup> *CJ* Ak. 180.

<sup>9</sup> *CPR* A653-4 / B681-2.

<sup>10</sup> I am not able to say more here about the transfer of this role from reason to judgment. Buchdahl, for instance (*Metaphysics and the Philosophy of Science*, 495ff) claims that reflective judgment is just another name for theoretical regulative reason, but I think this is too strong a claim.

<sup>11</sup> *CJ* Ak. 168.

own that “give[s] the rule *a priori* to the feeling of pleasure and displeasure, the mediating link between the cognitive power and the power of desire”.<sup>12</sup> Kant intends the power of judgment to connect the domain of the concept of “nature in general” with that of the concept of freedom and moral purposes. In connecting “nature in general” with free purposiveness, the power of judgment will make possible the attribution of productivity to nature, as well as allowing us to judge nature as systematic and wholly suitable for cognition.

The power of judgment, generally, is the capacity to think particulars as contained under universals. When the universal is given (in the form of an *a priori* rule, principle, or law), judgment subsumes the particular under it, and is called determinative judgment. Reflective judgment, by contrast, seeks out universal laws for given particulars.<sup>13</sup> Determinative judgment subsumes objects of nature under transcendental *a priori* laws — the principles of understanding — and does not require any additional principle in order to carry out this task. But as we have seen, these principles of understanding concern only in “nature in general”. The “diverse forms of nature” that are left undetermined by the universal laws of permanence, causality, and so on, must be governed by universal *empirical* laws.<sup>14</sup> These laws are to be sought by reflective judgment, and a principle is required for this task. This principle cannot be taken from experience, for it is to be the basis of the unity of all empirical laws under higher ones, allowing us to subordinate empirical laws to one another in a systematic way. Similarly, it cannot be prescribed to nature, for it is a principle enabling us to ascend from particulars in nature to universals: our reflection upon these universals must be governed by experienced nature, not nature by our principle of reflection.<sup>15</sup> The principle, then, is one that judgment gives as a law, but only to itself. For if it did not assume such a law *a priori*, judgment could only “grope about among natural forms” and would find the connections between particular natural events, and between such events and our understanding, entirely contingent.<sup>16</sup>

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<sup>12</sup> *CJ Ak.* 168.

<sup>13</sup> *CJ Ak.* 179.

<sup>14</sup> *CJ Ak.* 179-80.

<sup>15</sup> *CJ Ak.* 180.

<sup>16</sup> *CJ First Introduction, Ak.* 210’.

The principle is as follows. Since the universal laws of *nature in general* are prescribed to nature by our understanding, what is left undetermined in the particular empirical laws must be viewed “in terms of such a unity as if they too had been given by an understanding (even though not ours) so as to assist our cognitive powers by making possible a system of experience in terms of particular natural laws”.<sup>17</sup> Since this is a law that judgment gives only to itself and not to nature, the existence of such an understanding is not assumed; all judgment assumes here is that the particular laws of nature form a systematic whole that can be cognized and systematized by our understanding. “What is presupposed is that nature, even in its empirical laws, has adhered to a certain parsimony suitable for our judgment, and adhered to a uniformity we can grasp”.<sup>18</sup> In other words, the principle of the power of judgment according to which empirical natural science can proceed, is the principle of the purposiveness of nature for our cognitive powers. It is the principle that nature is wholly graspable by us. This transcendental concept of the purposiveness of nature attributes nothing to nature itself, but guides us in reflecting upon the objects of nature in order to have coherent experience.<sup>19</sup> As an *a priori* principle, we must think of purposiveness not as a property of nature, but as a function of our intentionality or comportment towards it.

In reflective judgments of nature, when empirical laws are sought for particular events, the events are referred to this principle of purposiveness, which allows us to think of nature as *a priori* suitable for judging and classifying. In referring particulars to the principle of nature’s purposiveness (beyond referring them “schematically” to the *a priori* principles of understanding), the power of judgment acts “technically” or artistically: they are not only formally determined as objects of possible experience, but are judged to be part of an empirical *system* of nature.<sup>20</sup> Reflective judgment is governed by the principle of a system or “technic” of nature: nature is regarded as art, insofar as we think of nature as deriving its particular forms from more universal ones in terms of a principle of

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<sup>17</sup> *CJ Ak.* 180.

<sup>18</sup> *CJ First Introduction, Ak.* 213’.

<sup>19</sup> *CJ Ak.* 184.

<sup>20</sup> *CJ First Introduction, Ak.* 213’-14’.

purposiveness.<sup>21</sup> Yet reflective judgment does not have an objective basis for regarding nature as a technic; “rather, judgment makes this technic its principle only so that it can, according to its needs, reflect in terms of its own subjective law, and yet in a way that also harmonizes with natural laws in general”.<sup>22</sup>

The principle of reflective judgment includes a reference to the supersensible substrate, or the idea of the transcendental object (as discussed in chapter three). First, the principle refers to an underlying unity that is thought to make it possible for us to experience a coherence of particular natural laws, and even though the principle is subjective, we are led to consider the possibility of an actual object or “supersensible basis” of such unity.<sup>23</sup> More importantly, however, the principle of purposiveness allows us to think of nature not only as a system that is intrinsically coherent, but also as one that is wholly suitable for our cognitive powers. It must be possible for us to think that the lawfulness of nature will harmonize with human lawfulness, that is, the lawfulness of freedom.<sup>24</sup> The purposiveness of nature allows us to think that human moral action can be harmonized with nature, and allows us to think that “there must after all be a basis uniting the supersensible that underlies nature and the supersensible that the concept of freedom contains practically”.<sup>25</sup> Achieving a unity between the supersensible substrates of nature and of our final purpose, and thereby making possible a transition between the domains of understanding and reason, is one of the aims of the *Critique of Judgment*. While there is much to be said about Kant’s idea of the supersensible substrate, I will not discuss it here.<sup>26</sup> Towards the end of the chapter I will return briefly to the idea of a supersensible substrate in general, but only to tie this in with the idea of the transcendental object from chapter three, and the idea of God from chapter one: this idea, I will suggest, remains a projection based on our concepts of a productive nature and productive spontaneity.

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<sup>21</sup> *CJ* First Introduction, Ak. 215’.

<sup>22</sup> *CJ* First Introduction, Ak. 214’.

<sup>23</sup> *CJ* First Introduction, Ak. 218’.

<sup>24</sup> *CJ* Ak. 176.

<sup>25</sup> *CJ* Ak. 176.

<sup>26</sup> Werner Pluhar, in his introduction to the *Critique of Judgment*, suggests that the *Critique of Pure Reason* gives us the indeterminate idea of nature in itself as supersensible substrate for theoretical philosophy, while the *Critique of Practical Reason* gives us the determinate idea of God as substrate of our final purpose for practical philosophy. The *Critique of Judgment*, he argues, introduces a third substrate (a substrate of nature’s purposiveness), which mediates between the other two, and ultimately unifies them into a single supersensible substrate. See *CJ* xlvi-xlvii.

The *Critique of Judgment*, though, is centrally concerned with our power to judge *objects* according to an *a priori* principle of the purposiveness of nature for cognition. Reflective judgment, with its principle of purposiveness, makes possible nature as an organized system, and also makes possible our apprehension of certain natural objects as “hints” that nature as a whole is suitable for the cognitive faculties.<sup>27</sup> We apprehend objects as such “hints” when a feeling of pleasure arises from mere reflective judging — that is, from the mere reflection on objects in terms of the principle of purposiveness. Our pleasure, in these cases, is governed by the principle of purposiveness. The feeling of pleasure, Kant says, is connected with the attainment of an aim, and the aim in this case is the discovery of an order of the particular laws of nature that is commensurate with our ability to grasp that order.<sup>28</sup> The condition of reaching this aim is the employment of the principle of the purposiveness of nature for our cognitive powers, and so the feeling of pleasure will also depend on the employment of this principle. This pleasure, Kant says, arises every time we discover the conformity of nature to our cognitive power, and thus every time we are able to grasp nature in terms of the similarities and differences that make empirical concepts possible. However, since “even the commonest experience would be impossible” without this discovery, we no longer notice the pleasure in everyday cognition.<sup>29</sup> In order to feel this pleasure in response to the conformity of nature’s particular laws with our cognitive power, we must turn to something that in our judging it “makes us pay attention to this purposiveness of nature for our understanding”.<sup>30</sup> This something is the beautiful in nature, and so in order to analyze the principle making the discovery of purposiveness (and thus also the pleasure) possible, Kant turns to a specific type of reflective judgment, the judgment of taste.

In reflective judgments of taste — aesthetic judgments — the object is called purposive because its representation is directly connected with the feeling of pleasure. As Kant says, “pleasure is connected with mere apprehension of the form of an object of intuition, and we do not refer the apprehension to a concept so as to give rise to determinate cognition”. Instead of being referred to an empirical

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<sup>27</sup> *CJ* §42. Ak. 300.

<sup>28</sup> *CJ* Ak. 187.

<sup>29</sup> *CJ* Ak. 187-8.

concept, as would happen in standard reflective judgment, the apprehension is referred only to the subject, and the pleasure in the harmony of the cognitive powers that results.<sup>31</sup> Kant calls this the *subjective* formal purposiveness of the object; its purposiveness for bringing about pleasure in the harmony of the cognitive powers. Aesthetic judgment presupposes *a priori* the principle of the purposiveness of nature for cognition, for without this principle, and the presupposition that the object is *able to* conform to the conditions of the harmony of the cognitive powers, we could not judge that the object is bringing about pleasure. Objects can only be judged to bring about this sort of pleasure, and thus can only be judged to be beautiful, if this *a priori* principle is presupposed.

Reflective judgments can also be teleological judgments, however, where we judge the *objective* purposiveness of nature. That is, we judge the purposiveness of an object not in terms of its harmony with our cognitive faculties, but in terms of its harmony with a purposive concept through which it could have been produced. In these cases, we determine how well the actual form of the object harmonizes with the possibility of that object if it were produced according to a prior concept of it.<sup>32</sup> Those objects that *might* have been produced according to a concept are judged objectively purposive. Teleological judgment does not involve pleasure, and does not employ *a priori* the principle of the purposiveness of nature. There is no *a priori* basis for asserting that there are things in nature that are possible only as purposively produced.<sup>33</sup> Teleological judgment

merely contains the rule for using the concept of purposes for the sake of reason when cases (certain products) occur, after the former transcendental principle [of the formal purposiveness of nature] has already prepared the understanding to apply the concept of a purpose (at least in terms of form) to nature.<sup>34</sup>

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<sup>30</sup> CJ Ak. 188.

<sup>31</sup> CJ Ak. 189.

<sup>32</sup> CJ Ak. 192.

<sup>33</sup> CJ Ak. 193.

<sup>34</sup> CJ Ak. 193-4.



Teleological judgment treats certain natural objects as objectively purposive, based not on an *a priori* principle, but on the fact that the understanding is already “prepared” to apply the concept of a purpose to nature. Because reflective judgment in general operates according to the principle of the purposiveness of natural objects for cognition, teleological judgment views nature in terms of the purposiveness of natural objects for (broadly) moral aims.

We can see already that teleological judgment involves borrowing the concept of purposiveness and interpreting nature in terms of purposes in order to explain its production and productivity. This amounts, as we will see, to a productive comportment towards nature; one that is inevitable, given the character of human spontaneity. Aesthetic judgment, the “essential” part of the critique according to Kant,<sup>35</sup> involves determining things as *subjectively* purposive, as things that are *a priori* graspable by the cognitive faculties. Aesthetic judgment thus concerns the relation between the object and the cognitive faculties before experience has been fully constituted. We will see through an analysis of each of these types of reflective judgment that aesthetic judgment concerns the relation of being, while teleological judgment concerns existence and our productive comportment towards it. I have suggested that the theme of the *Critique of Judgment* as a whole is the relationality of productive spontaneity and productive nature; by looking at its two halves we see that an analysis of the initial relation of being must precede an analysis of the moral and scientific relations that are built upon that initial relation.

## 4.2 Aesthetic judgment: being and representation

The first half of the *Critique of Judgment*, the Critique of Aesthetic Judgment, is divided into an Analytic and a Dialectic. Like the division of the *Critique of Pure Reason*, this division serves to differentiate a description of the concept of aesthetic judgment and its use from the extension of that concept beyond experience. In the Dialectic of Aesthetic Judgment, Kant is able to refer aesthetic

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<sup>35</sup> *CJ* Ak. 193.

judgment to reason's idea of a supersensible substrate, and to claim that this supersensible is the ground of the universal necessity of judgments of taste.<sup>36</sup> In the *Analytic of Aesthetic Judgment*, however, Kant gives an account of how we make judgments about the beauty and sublimity of things — judgments which rely on the principle of nature's purposiveness for our cognitive faculties. Kant also shows how we can justify laying claim to universal assent for judgments of taste without recourse to the supersensible substrate. It is the *Analytic*, and specifically the *Analytic of the Beautiful*, that I will discuss here.<sup>37</sup>

In the first *Critique*, Kant defined the faculty of judgment as the faculty of subsuming objects under rules of the understanding.<sup>38</sup> Judgment itself is

nothing but the manner in which given modes of knowledge are brought to the objective unity of apperception. This is what is intended by the copula “is”. It is employed to distinguish the objective unity of given representations from the subjective. It indicates their relation to original apperception, and its *necessary unity*.<sup>39</sup>

Judgment relates subjects and predicates to the objective unity of apperception, that is, the unity of the “I think”. Judgment brings an objectively unified manifold to the unity of self-consciousness, and the pure *a priori* principles derived from it. Judgment is possible only under the condition of the *analytic* unity of apperception, and thus it is possible only under the condition of the *synthetic* unity of apperception. It relies upon the synthetic relation of spontaneity to the manifold; the relation of being. We saw in the previous chapter that judgment is related to being: in using the copula “is”, and asserting the objective validity of a relation of representations, judgments assert that the relation of synthetic apperception between subject and object has been established. Judgments, in

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<sup>36</sup> *CJ* §47, Ak. 339. I disagree with Pluhar, who believes Kant's *Analytic/Dialectic* division to be “artificial and unhelpful” (*CJ* liv).

<sup>37</sup> There are numerous very interesting aspects of the *CJ* that I will not be able to discuss here, including judgments of the sublime, Kant's *Deduction of Aesthetic Judgments*, and his discussion of fine art and genius.

<sup>38</sup> *CPR* A132 / B171.

<sup>39</sup> *CPR* B141-2.

employing the copula “is”, assert the being of a thing: its relation *as an object* to a subject. The activity of subsuming objects under rules of the understanding belongs to what Kant now calls the power of determinative judgment. Determinative judgment presupposes a relation to an objectively unified manifold, and thus already includes the assertion of the being of the object.

The power of reflective judgment, however, is occupied with reflecting, in terms of a certain principle, on a given representation in order to make an empirical concept possible.<sup>40</sup> In reflecting we generally compare representations with one another, in reference to an empirical concept that the comparison makes possible, and this gives rise to some knowledge. Reflective judgment generally, then, must also include the assertion of being: the initial subject-object relation must occur in order for objectivity to be established and in order for concepts to be applied to representations. In the case of reflective *aesthetic* judgment, however, we compare representations to our own cognitive power. In the judgment of taste, representations of objects are referred not to concepts that would give rise to knowledge, but to a feeling in the judging subject.

We do not use understanding to refer the [re]presentation [*Vorstellung*] to the object so as to give rise to cognition; rather, we use imagination (perhaps in connection with understanding) to refer the [re]presentation to the subject and his feeling of pleasure or displeasure.<sup>41</sup>

The object must have been brought into relation to the subject, and the objectivity of the object established, but the next step in aesthetic judgment is to hold on to this relationality and the feeling it brings about, ignoring the empirical concepts that may attach to the object. That is, in aesthetic judgment, the activities of searching for and applying empirical concepts are deferred in favour of reflecting on the initial subject-object relation, the relation of *being*. For it is clear that the

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<sup>40</sup> *CJ* First Introduction, Ak. 211’.

<sup>41</sup> *CJ* §1, Ak. 203. Pluhar translates *Vorstellung* as “presentation” throughout this edition of the *CJ*, according to his belief that Kant’s theory of perception is not representational. For the sake of consistency with my other chapters, I will amend Pluhar’s “presentation” to “representation” throughout, and will not indicate this in the text or notes.

application of empirical concepts to natural beauties such as roses and seashells is still possible; the process is simply deferred.<sup>42</sup> An aesthetic judgment cannot have the objective validity of a determinative or cognitive reflective judgment, but in referring a representation only to the subject's liking, can only be subjective.

Kant makes clear very early on that judgments of taste about beauty concern the subject and not the object. Beauty is shown not to be a property of objects, but to be a certain relation of the subject to a representation. This is why our liking for the beautiful must be devoid of interest in the existence of an object: to judge an object beautiful, our *mere representation* of the object must be accompanied by a liking, regardless of our interest in or indifference to the existence of the object.<sup>43</sup> By contrast, objects we judge to be agreeable are connected with interest, as are objects we judge to be good. In order to consider something good — either good *for* something, or good intrinsically — we must have a determinate concept of what the object is meant to be.<sup>44</sup> But we do not need this determinate concept in the case of objects judged to be beautiful; indeed, such determinate concepts, even if available, must be ignored. For a liking for the beautiful does not depend upon the representation being given to understanding for determination by empirical concepts; rather, it depends on “the reflection, regarding an object, that leads to some concept or other (but it is indeterminate which concept this is)”.<sup>45</sup> This distinguishes the liking for the beautiful both from the liking for the good, which depends on a determinate concept, and from the liking for the agreeable, which depends only on sensation and does not involve reflection.

The object judged to be beautiful is also represented as the object of a universal liking. In making a judgment of taste about the beautiful, Kant says, we require everyone to like the object, without this liking being based on a concept. Indeed, a claim to universal validity is part of what it means to judge something to be beautiful, for a claim to merely personal validity would only designate an object agreeable.<sup>46</sup> The universality of judgments of taste gives them a

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<sup>42</sup> Derrida makes much of this deferral of determination in Kant's aesthetics, and gives an analysis of Kantian beauty as the object which is “cut off from its goal”; see *The Truth in Painting*, trans. Geoff Bennington & Ian McLeod (Chicago: Chicago UP, 1987) 83ff.

<sup>43</sup> *CJ* §2, Ak. 205.

<sup>44</sup> *CJ* §4, Ak. 207.

<sup>45</sup> *CJ* §4, Ak. 207.

<sup>46</sup> *CJ* §8, Ak. 214.

resemblance to logical judgments, and allows us to “talk about the beautiful as if beauty were a characteristic of the object”.<sup>47</sup> But the origin of this universality is not, as it is in the case of logical (determinative) judgments, based on the objective validity of connecting an object to a concept. Rather, the judgment of taste involves a claim to a *subjective* universality. As we can see, it is a question of claiming universality for the activity of maintaining the state of relationality between subject and object, and forestalling determination by concepts. What is universalized in the judgment of taste is not a procedure for representing an object by means of a concept, but simply the indeterminate procedure of *representing*.

Kant reaches this conclusion by asking, in §9, “whether in a judgment of taste the feeling of pleasure precedes the judging of the object or the judging precedes the pleasure”. If we felt pleasure in an object and then judged the pleasure to be universally communicable on the basis of our representation of its various sensory elements, we would run into self-contradiction. That kind of pleasure would only be agreeableness, a pleasure taken in mere sensation; such pleasure cannot be universally communicable, for by definition it has only personal validity.<sup>48</sup> In a judgment of taste, we judge an object (i.e. we enter into a *relation* with it) and *then* feel pleasure: what is universally communicated is the mental state we are in during reflective judgment. This mental state is the interrelation of those representational powers that respond to the object-relatedness of the subject, and prepare the representation of the object for concept-determination. Judgments of taste are not based on sensation, but on the harmony of our faculties that arises from the judgment itself. The subjective determining basis for the universal communicability of the judgment of taste is “the mental state that we find in the relation between the representational powers [imagination and understanding] insofar as they refer a given representation to *cognition in general*”.<sup>49</sup>

In their usual job of making representations into knowledge, the imagination combines the manifold of intuition and the understanding provides the unity of the concept; these two powers harmonize with one another in order to achieve cognition. This mental state is universally communicable, on the assumption that

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<sup>47</sup> *CJ* §6, Ak. 212.

<sup>48</sup> *CJ* §9, Ak. 217.

<sup>49</sup> *CJ* §9, Ak. 217.

the process of cognition is the same for everyone. In a judgment of taste, however, cognition is not the aim, for no determinate concept is presupposed; the powers are in “free play” rather than working towards knowledge. Nevertheless, their harmonious way of representing, which occurs in all types of judgment, has subjective universal communicability. This universal communicability

can be nothing but the mental state in which we are when imagination and understanding are in free play (insofar as they harmonize with each other as required for cognition in general). For we are conscious that this subjective relation suitable for cognition in general must hold just as much for everyone, and hence be just as universally communicable, as any determinate cognition, since cognition always rests on that relation as its subjective condition.<sup>50</sup>

Judgments of taste are universally communicable because the harmony of the faculties that is suitable for cognition in general is the same for everyone. The universal communicability of judgments of taste, then, is based on the same conditions as the universal communicability of cognitive judgments: the subjective conditions under which any judgment of any object is possible for anybody. Judging the object, and thus bringing these subjective conditions into play, precedes the pleasure in the object, for the harmony of the cognitive powers is the basis of the pleasure.<sup>51</sup> The judgment of taste has the same subjective form as cognitive judgments, and it is this subjective form of cognition in general that is universally communicable.

It may seem that any judgment could occasion this pleasure, as long as determinate concepts were kept out of the way. However, a judgment of taste is not a merely psychological phenomenon. Although beauty is not a property of the object, the judgment and the pleasure must arise through relation to an *object*. The object must be purposive for bringing about this pleasure, and thus must be subjectively purposive. What it is to be subjectively purposive is to be a thing

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<sup>50</sup> *CJ* §9, Ak. 217-18.

<sup>51</sup> *CJ* §9, Ak. 218.

capable of bringing about the harmony of the cognitive faculties. But since Kant has said that the harmony of the faculties in a judgment of taste is the same as the harmony in a cognitive judgment, the mere *objectivity* of an object — which would allow for cognitive judgment — seems to be enough to bring about harmony. The primary criterion for a beautiful object is, in fact, its objectivity. This is “objectivity” in the broadest sense, as suggested by the Transcendental Deductions, for even sounds and colours may be found beautiful insofar as they are thought to be regular vibrations of the ether or air.<sup>52</sup> Because such vibrations are activities of force, they are indeed objective appearances, though a sound is not an “object” in the narrower sense of the term. What is crucial is the objectivity of the appearance, established in the relation of being. The relation of being is the ground for the possibility of knowledge, and the reflection upon this possibility is the basis for the pleasure of the judgment of taste. The judgment of taste is a pleasure taken in the *mere being* of the object. This should not be read as a pleasure taken in the object’s mere presence — as it would on an aestheticist reading — but rather, keeping in mind a Kantian understanding of being, as a pleasure taken in the subject-object relationality that makes knowledge possible. The judgment of taste is a transcendental epistemological judgment, a judgment about the conditions of the possibility of knowledge.

It is in this sense that we must understand Kant’s insistence that we judge the object’s “form” rather than its matter or content.<sup>53</sup> Kant’s theory does require that we judge objects in terms of their *empirical* formal characteristics (such as shape and pattern) — a requirement I will return to in a moment. When he says that we judge the “mere form” of objects, however, he does not mean empirical form. Rather, we judge their *transcendental* form: that aspect of objects that is constituted with their relation to a subject. Rodolphe Gasché has also argued for a transcendental interpretation of form in the third *Critique*, as opposed to an aestheticist empirical interpretation.<sup>54</sup> Recall that for Kant, the form of appearances is provided *a priori* by the mind’s faculties, while the matter of

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<sup>52</sup> *CJ* §14, Ak. 224. Kant was ambivalent at this stage on Euler’s view that colours, like sounds, are vibrations. Eckart Förster discusses this at some length in chapter 2 of *Kant’s Final Synthesis*.

<sup>53</sup> *CJ* §11, Ak. 221.

<sup>54</sup> See especially ch. 3 of Rodolphe Gasché, *The Idea of Form: Rethinking Kant’s Aesthetics* (Stanford: Stanford UP, 2003).

appearances is obtained through the senses; it is only “on occasion of the sense-impressions” that the formal aspects “are first brought into action and yield concepts”.<sup>55</sup> Form is the complex of *a priori* forms of intuition and concepts of understanding that order the material of the senses, and only through the subject-object relation, in which objectivity is constituted, does the object acquire its form. Indeed, in chapter three I suggested that the being of things is their subject-relatedness or *formality*. The judgment of taste is a judgment of the *form* of the object because it reflects upon the *objectivity* or *subject-relatedness* of the object. In the judgment of taste, we judge the subject-relatedness of an object, the suitability of the object for being an object of experience.

The object thus judged has a purposiveness for the possibility of knowledge, and this is what Kant calls its “subjective formal purposiveness” or “form of purposiveness”.<sup>56</sup> The pleasure we feel in the harmony of the cognitive powers is a pleasure taken in the object’s “subjective formal purposiveness”, its suitability for being known.<sup>57</sup> There is pleasure in reflecting upon the subjective and objective conditions for cognition being met, without any actual cognition taking place. If “a given representation unintentionally brings the imagination [...] into harmony with the understanding [...], and this harmony arouses a feeling of pleasure, then the object must thereupon be regarded as purposive for the reflective power of judgment”.<sup>58</sup> This object that is purposive *for the power of judgment* is then regarded as beautiful, and is thought to be the basis of the pleasure felt. It seems that any judgment which relates to any object — and which does not refer the object to determinate concepts — can be a judgment of beauty, bringing about the harmony of the cognitive powers and thus pleasure. For any such judgment will establish the subject-relatedness of the object and its purposiveness for the possibility of knowledge.

It is a problem for Kant’s theory, however, if a judgment of beauty can be occasioned by any object, for it is clear that he does not believe that all objects bring such judgments about. What I have called the transcendental form of the object — its subjective formal purposiveness or “form of purposiveness” — does

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<sup>55</sup> CPR A20 / B34; A86 / B118.

<sup>56</sup> CJ §11, Ak. 221.

<sup>57</sup> CJ Ak. 189.



indeed belong to all objects; it *can* bring about a judgment of beauty, but it clearly does not always do so. Since, as Kant himself indicated in the introduction, all cognitive judgments did *at one time* give rise to pleasure, there must be a criterion distinguishing those objects that *now* enable us to defer conceptual determination and to maintain the pleasure taken in their subjective formal purposiveness (and distinguishing them from those objects that *prevent* us from experiencing this pleasure).<sup>59</sup> Kant thus introduces an empirical criterion of the beautiful: we judge beautiful only those objects that display a form of purposiveness without any purpose. Not only are such objects subjectively purposive (for our inner harmony); they have a “purposiveness of form” that is *perceived* in the object.<sup>60</sup> This form is *empirical form* (shape, pattern, etc.) and it pertains only to those objects displaying regularity and unity in their manifold.<sup>61</sup> Where we perceive such regularity, there is an empirical form that is purposive for our subjective harmony, for the regularity encourages the faculties to linger with the representation, and to defer conceptual determination.

A purposive empirical form supplements the purposiveness inherent in the transcendental form of objects, and serves to limit the number and types of objects which can be designated beautiful. Kant never says this, and he does not make this distinction between transcendental form (the form of purposiveness) and empirical form (the purposiveness of form); unfortunately, he tends to discuss them as if they were interchangeable.<sup>62</sup> But they are not interchangeable, and both are necessary to the judgment of beauty. The transcendental form of things is their subject-relatedness or *being*, the condition of their possible cognition, and is what *actually* gives rise to the harmony of the faculties and the resulting pleasure. The

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<sup>58</sup> *CJ* Ak. 190.

<sup>59</sup> *CJ* Ak. 187-8. Into this latter category fall judgments of sublimity and judgments of ugliness, which I will not discuss here. It is worth noting, though, that while judgments about the beautiful take pleasure in the possibility of theoretical knowledge, judgments about the sublime take pleasure in the possibility of practical (moral) knowledge.

<sup>60</sup> *CJ* Ak. 236.

<sup>61</sup> *CJ* §14, Ak. 224; §15, Ak. 227.

<sup>62</sup> Paul Guyer claims that by introducing what I have called purposive empirical form as a characteristic of beautiful objects, Kant tried to accomplish the traditional aim of aesthetics, to specify certain properties or kinds of objects which occasion judgments of taste. Guyer argues that “such constraints on beautiful objects cannot be directly derived from the basic premises of Kant’s theory of taste”, a position with which I am inclined to agree. Guyer also points out that Kant confuses the form of purposiveness with the purposiveness of form. See chapter 6 of Paul Guyer, *Kant and the Claims of Taste*, 2nd ed. (Cambridge: CUP, 1997).

empirical form of things judged beautiful is their perceived regularity and unity, which *maintains* the faculties in their harmony and thus allows us to *notice* the pleasure. By contrast, the empirical form of irregular, disordered or contrapurposive things — things judged ugly or, in some cases, sublime — noticeably *disrupts* the harmony of the faculties, resulting in displeasure. But even in these cases, the harmony *must be there*, at least minimally and initially, if the things are objects of possible experience, for things judged ugly and sublime, like all things, have the same transcendental form as things judged beautiful.<sup>63</sup> Transcendental form, which pertains to all objects, is necessary for making a judgment of taste, while a purposive empirical form is necessary for making judgments specifically of beauty.

Transcendental form is the *purposiveness for the possibility of knowledge* pertaining to all objects that have been brought into the relation of being. Beauty is a judgment made about objects that through their empirical form are found to be purposive for the possibility of knowledge, without actually bringing knowledge about (due to the deferral of conceptual determination). The judgment of taste is a reflection upon the subject-object relation, the objectivity of the object, its possibility for knowledge. In the case of the judgment of beauty, the mind defers or ignores conceptual determination in order to contemplate this possibility and maintain the pleasure it occasions. There is in the history of aesthetics a long tradition of associating beauty with being. Kant continues this tradition, but for him beauty and being are not linked because they are unchanging ideas that are found to be instantiated in the mere presence of things. Rather, the judgment of taste — the pleasure taken in transcendental form — is a reflective response to the subject-object relation of being; the judgment of beauty indicates a representation worthy of prompting contemplation of that relation. Beauty is a judgment made about products of nature in their representation, and involves the productive

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<sup>63</sup> See, e.g., *CJ* §23, Ak. 244-5. There are two types of things that do not have this transcendental form: what Kant calls “the monstrous” and “the colossal” (*CJ* §26, Ak. 253). Objects of both these types cannot be *experienced* in the strict sense, because they are too large or irregular to exhibit concepts for. They do not lead to any harmony because their subject-relatedness cannot be firmly established.

activity of the imagination and understanding.<sup>64</sup> In the free play of these faculties there is, as it were, productivity without any product.

Through judging products of nature to be beautiful, the subject enhances the productivity of her own faculties. Kant calls this “a feeling of life’s being furthered”.<sup>65</sup> As a number of recent commentators have discussed, the concept of “life” in Kant’s critical period is a name for our inner principle of self-activity, particularly our ability to act according to representations.<sup>66</sup> In the *Critique of Judgment*, the “feeling of life” is associated quite specifically with the very ability of the mind to represent: Kant suggests that all representations in us can be associated with pleasure or pain, because “all of them affect the feeling of life, and none of them can be indifferent insofar as it is a modification of the subject”.<sup>67</sup> Furthermore, Kant says that “the mind taken by itself is wholly life (the very principle of life), [and] any obstacles or furtherance [to life] must be sought outside it and yet still within man himself, and hence in the [mind’s] connection with his body”.<sup>68</sup> These passages make clear that Kant thinks of life as associated with a self-active mind, but a mind that is affected by the existence of the outside world. Only insofar as it has representations does the mind *feel* its life and feel its self-active productivity. While this feeling is possible with any object, it arises particularly with the object judged to be beautiful, where the mere object-relatedness of the mind is highlighted. The reflective response to the subject-object relation of being is a reflective response to the object’s suitability for the subject, but also to the subject’s suitability for the object. It is a reflective response to the productivity and “life” of the subject; productivity, activity, and life are enhanced by the subject’s *relatedness* to objects in the world. It is, as Makkreel suggests, the transcendental feeling of spontaneity.<sup>69</sup>

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<sup>64</sup> *CJ* §42, Ak. 299; §22 General Comment, Ak. 240.

<sup>65</sup> *CJ* §23, Ak. 244; cf. §1, Ak. 204.

<sup>66</sup> See Howard Caygill’s article “Life and Aesthetic Pleasure” in Rehberg and Jones (eds.), 79-92, and his longer treatment of this topic in his book *Art of Judgment* (Oxford: Blackwell, 1989). See also Makkreel ch. 5, and Shell chs. 8 and 9. Kant defines “life” as the ability to act according to representations in the Preface to the *Critique of Practical Reason*, Ak. 9n, and in *The Metaphysics of Morals*, trans. Mary Gregor (Cambridge: CUP, 1991), Ak. 211.

<sup>67</sup> *CJ* §29 General Comment, Ak. 277-8.

<sup>68</sup> *CJ* §29 General Comment, Ak. 278.

<sup>69</sup> Makkreel 104-7.

Kant is about to go on to discuss how the “life” of the subject is projected back onto nature in order to understand nature through the template of human productivity. “Life” can only be thus projected if it is first made thematic through reflection, and this is exactly what has been accomplished in the judgment of taste. We have “uncovered” and lingered with the feeling of our own spontaneity, and, through teleological judgment, we will make it an explicit structure through which we describe nature. The purpose of this projection is, ultimately, to set up the conditions for justifying our moral and scientific relations to nature. In order to see nature as suitable for these “second-order” relations, we must first recognize nature as suitable for the “first-order” relation of being. The judgment of taste has accomplished that recognition, and that is why a Critique of Aesthetic Judgment must precede the (arguably further-reaching) Critique of Teleological Judgment.

### 4.3 Teleological judgment: life and productive comportment

Teleological judgment works at a *later stage* of the mind’s dynamic process, and this is why teleological and aesthetic judgments can be and are made about the same objects. In the case of aesthetic judgment about a natural object, we were obliged to defer conceptual determination, or ignore any empirical concepts that might be associated with the object. It was a judgment about the suitability of a particular rose or seashell for cognition in general, and its purposiveness for sparking the harmony of the cognitive faculties. But if, through reflective judgment in general, we continue to full cognition of that rose or seashell, joining the particular representation to empirical concepts and forming empirical laws, we will be in a position to compare these empirical concepts and laws with reason’s principle concerning the possibility of a system of experience.<sup>70</sup> If we then find the object’s form suitably systematic, we judge the object to have objective purposiveness, and call the thing a natural purpose. This is a teleological judgment: a judgment that an object is a purpose within a purposive system. It is a

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<sup>70</sup> *CJ* First Introduction, Ak. 221’.

judgment about the suitability of the fully cognized rose or seashell for a *system* of experience.

Teleological judgment is a specific type of reflective judgment. Reflective judgment finds empirical concepts and laws for particular objects and events, guided by the principle of purposiveness. Teleological judgment applies itself to these objects and events that have already been referred to concepts and laws, and, guided by the regulative principle that nature's system is a "technic" of purposes, determines that they are purposes. Unlike aesthetic judgment, which stops short of knowledge, teleological judgments are cognitive judgments, for they refer to determinate empirical concepts. Nevertheless, teleological judgment is reflective; guided by the regulative concept of a "technic" of nature, it reflects upon the relation of things to the power of judgment itself. "In [the] power [of judgment] alone can we find the idea of a purposiveness of nature, and only in relation to this power do we attribute this purposiveness to nature".<sup>71</sup> Put simply, teleological judgments say that we cannot judge empirical nature other than as a system of purposes that harmonizes with reason's principle of systematicity.

Teleological judgments allow us to set up both scientific and moral (practical) relations to nature as a whole. For once nature has been judged teleologically, we are able to build the idea of "a vast system of purposes of nature" and of "the whole of nature [regarded] as a system that includes man as a member".<sup>72</sup> Natural science acquires grounds for belief that nature *is* such a system that specifies itself according to laws. Practical reason gains justification for its belief that the world is an intentionally created system of purposes working towards a final cause. Teleological judgment sets up the conditions of possibility for these scientific and moral relations between subject and nature. The primary condition of possibility of these relations is that nature be represented as productive, but in a certain way: the inherent productivity of nature, inconceivable to us, must be re-interpreted as analogous to human productivity. The resulting similarity between natural productivity and human productivity justifies these "second-order" relations between nature and the subject.

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<sup>71</sup> *CJ* First Introduction, Ak. 221'.

<sup>72</sup> *CJ* §67, Ak. 380.

The primary task of teleological judgment, then, is to interpret certain objects of nature, those objects that exist in nature as perfectly organized and yet utterly contingent. Teleological judgment must interpret the radically inconceivable *productivity* of nature. It does this by using the concept of a natural purpose. A natural purpose is a thing whose inner possibility is only conceivable on the presupposition of a concept that is the underlying condition of the causality responsible for its production.<sup>73</sup> Natural purposes are not merely purposive for some other end; they are intrinsically purposive, meaning that they are regarded “as directly the product of art”.<sup>74</sup> While we saw in chapter two that the existence of matter in general can be explained by (i.e. reduced to) the empirical concept of the fundamental forces, the *organization* of matter into seemingly concept-driven forms cannot be explained dynamically or mechanistically. The existence of this kind of natural productivity, found mainly in organic nature, is inconceivable for us on the mechanistic model that was developed in the *Metaphysical Foundations of Natural Science*. That is, the utter difference of the organized thing from raw matter or from human products of art leaves us without an adequate framework for considering its uniqueness.

As in Aristotle’s *phusis-techne* distinction, the difference between nature and art concerns the mode of production.<sup>75</sup> For unlike an object of human art, which is externally created, a natural purpose produces both the form and the existence of its parts. Kant specifies that we can recognize a natural purpose as a thing that is both cause and effect of itself. This does not mean that the thing brings itself into existence from nothing. It means that the parts of the thing work towards the whole and “cause” the whole, while at the same time the whole (as a sort of governing *eidos*) determines or “causes” the parts.<sup>76</sup> It seems that both the whole and the parts “cause” one another through a concept of what the thing is meant to be. The supposition of a governing concept is what distinguishes the reciprocal causality of a natural purpose from the reciprocal causality that is an *a priori* principle of “nature in general”, according to the third analogy. *All* objects are

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<sup>73</sup> *CJ* First Introduction, Ak. 232’.

<sup>74</sup> *CJ* §63, Ak. 366-7.

<sup>75</sup> See Aristotle’s *Physics*, Book II. The aims and findings of this second half of the *CJ* are very close to the *Physics*.

<sup>76</sup> *CJ* §65, Ak. 373.

reciprocally causal according to the third analogy, but the natural purpose seems to exercise reciprocal causality guided by a concept. We judge such a thing to be possible *only* as a purpose, the cause of which must be sought in a being “whose ability to act is determined by concepts” — that is, a will — and not in the mechanism of nature.<sup>77</sup>

However, if we think of the thing only in this way, as the product of a rational cause, we do not recognize what distinguishes it from a work of human artistry. In order to preserve the naturalness or *materiality* of the natural purpose, we must think it to be possible without the causality of concepts. To this end, we must think of the parts as *producing* one another (and not merely working together), so that the parts reciprocally bring one another into existence.<sup>78</sup> In addition to being organized, a quality it shares with works of artistry, such a product is self-organizing.<sup>79</sup> Natural purposes are self-organizing, self-producing beings that appear to work towards a concept-determined end. Thus the parts, through their own (and not an external) causality, produce their own form and combination. They do this in such a way that they produce a whole whose concept, if present in a being possessing causality in terms of concepts, could be the cause of this same whole. That is, the connection of parts through efficient causes can, at the same time, be judged to be a causation through final causes.<sup>80</sup> There is a balance to be achieved here: we must uphold the materiality and contingency of organized beings while recognizing that they can be judged only by reference to reason’s idea of a purpose. While organized beings cannot be thought to be produced by a rational cause without being reduced to artifacts, they are entirely inscrutable on the assumption of a nature that works only according to efficient causes. The concept-driven causality inherent in an organized being cannot be connected with

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<sup>77</sup> *CJ* §64, Ak. 369-70.

<sup>78</sup> *CJ* §65, Ak. 374.

<sup>79</sup> *CJ* §65, Ak. 374. According to physicist Fritjof Capra, Kant was the first to use the term “self-organization” to define organisms, a term to which Humberto Maturana and Francisco Varela’s concept of “autopoiesis” bears direct lineage. In 1970 Maturana defines living systems in much the same terms that Kant had done in 1790, as circular causal processes the components of which are produced and maintained by the circular organization itself. See Capra, *The Web of Life* (New York: Doubleday, 1996) 22 and ch. 5.

<sup>80</sup> *CJ* §65, Ak. 373.

“the mere concept of nature” unless we regard nature as acting from a purpose; “and even then, though we can think this causality, we cannot [conceive] it”.<sup>81</sup>

The inherent concept-driven causality of organized beings is inconceivable for us, whether we think of nature as blind mechanism or as in itself purposive. As Kant makes clear, the inconceivability of the concept of this causality does not mean that it is unthinkable, but rather that it cannot be derived from a more basic concept. Recall Kant’s similar use of the phrase “cannot be conceived” in relation to the fundamental forces in the *Metaphysical Foundations of Natural Science*.<sup>82</sup> As I discussed in chapter two, this means that the concepts of the forces cannot be derived from any more basic ones, and that their conditions of possibility cannot be determined. The same interpretation applies to the inconceivability of an inherent concept-driven causality. We cannot determine what could engender such causality.<sup>83</sup> This throws the origin of the existence of natural purposes into question; it is the point at which teleological judgments, and consideration of nature as a technic, must be reconciled with mechanistic explanations.

We must apply a structure of concepts and principles that renders the existence and generation of organized beings comprehensible, without losing sight of their existence as naturally-occurring, self-producing matter. Just as the productive existence of raw matter could only be approached within an epistemological ontology (as shown in chapters one to three), so the productive existence of organized matter can be understood only through a system of concepts and principles. But here they are not epistemic concepts and principles of understanding; rather, they are moral (practical) ideas and principles of reason. While both types of matter, raw and organized, require conceptual structures in order for us to approach them, the reciprocal relation is not the same. The existence of raw matter was required in order to *make possible* the very epistemological ontology that structured it, but the existence of organized matter merely *affirms* a kind of moral ontology — a moral ontology that would exist

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<sup>81</sup> *CJ* §64, Ak. 370-1. I have substituted “conceive” for Pluhar’s “grasp”, where the German is *begriffen*, in order to draw attention to the same inconceivability encountered in *MFNS*.

<sup>82</sup> *MFNS* Ak. 513.

<sup>83</sup> See also *The Metaphysics of Morals*, Ak. 280-1, where, with regard to human generation, Kant says that it is impossible to form a concept of the physical production of a being endowed with freedom. See Shell, ch. 9 for an interesting discussion of this topic.



whether or not we encountered organized matter in experience.<sup>84</sup> Nature is thought to have an affinity with practical reason, but only in order to justify a moral relation that we would set up anyway.

The conceptual structure we apply to organized matter, then, is that of final causes, and this structure is applied by the power of teleological judgment. Kant generally discusses the principle of teleological judgment as a principle of the technic of nature, or as a principle of nature as if it were art: we judge nature according to reason's idea of a purpose, and thus as if it were a work of artistry (art, craft, or technology) determined by a concept. But in order to maintain the naturalness of self-production, we also judge nature by a principle of *life*. This implies, perhaps puzzlingly, that organized beings do not really *have* life; their "life" is thought only by analogy. Kant suggests that "life" does not pertain to nature: natural beings just *seem* to have life by virtue of their organization. This is because Kant's concept of matter, as we saw in *Metaphysical Foundations*, does not include the concept of life. In fact, the Newtonian principle of inertia, for Kant, means nothing other than the lifelessness of matter, the inability of matter to move itself from an internal principle.<sup>85</sup> Nor is "life" a constitutive *a priori* concept of the understanding — if it were, it would have to apply to all objects of experience. So the "life" of organized beings can be only a regulative principle of reflective judgment.

This position is consistent with Kant's use of the term "life" in other texts and in the Critique of Aesthetic Judgment. As we have seen, "life" for Kant generally means the subject's power to act according to representations; in §29, Kant equates "life" with the mind [*Gemüt*] as such. "Life" in Kant's critical period denotes *human* productivity, and in this text refers to transcendental spontaneity; it cannot be attributed constitutively to natural beings.<sup>86</sup> As his critique of Herder's hylozoism makes clear, Kant rejects the view that a life force is a property of matter; he also declares as "contrary to reason" the presupposition that organized

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<sup>84</sup> *CJ Ak.* 478-9.

<sup>85</sup> *MFNS Ak.* 544.

<sup>86</sup> Again, Maturana and Varela follow Kant with their declaration that living systems are cognitive systems — for both Kant and Maturana/Varela this identification of cognition with life processes is a *real* description (though Maturana/Varela employ a much broader concept of cognition than Kant does, allowing them to make claims about living systems in nature being cognitive systems. Kant can only use such a claim as a regulative principle for reflective judgment.). See Capra 97.

matter “could have molded itself on its own into the form of a self-preserving purposiveness”.<sup>87</sup> It is precisely self-organization that Kant does not allow to be explicable in solely mechanistic terms.<sup>88</sup> But “life” is attributed *regulatively* to organized natural beings insofar as they seem to display concept-driven productivity. Indeed, our characterization of nature as acting according to purposes comes from an analogy with our own “life” or transcendental spontaneity. A passage from the *Metaphysical Foundations of Natural Science* makes this even clearer:

Life means the capacity of a substance to determine itself to act from an internal principle, of a finite substance to determine itself to change, and of a material substance to determine itself to motion or rest as change of its state. Now, we know of no other internal principle of a substance to change its state but *desire* and no other internal activity whatever but *thought* [...]. But these determining grounds and actions do not at all belong to the representations of the external senses and hence also not to the determinations of matter as matter. Therefore, all matter as such is lifeless.<sup>89</sup>

This passage makes two things clear. First, not just plants and animals, but *any* organized matter, when judged teleologically, is thought as the analogue of life — a claim to which Kant’s lyrical conjectures on crystallization attest.<sup>90</sup> Second, it is

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<sup>87</sup> *CJ* §65, Ak. 374-5; §81, Ak. 424. See also *MFNS* Ak. 544, and Kant’s review of Herder’s *Ideas on the Philosophy of the History of Mankind* (in Kant, *Political Writings*, 201-20). On Kant’s critique of Herder, see John Zammito, *The Genesis of Kant’s Critique of Judgment* (Chicago: University of Chicago Press, 1992) and *Kant, Herder, and the Birth of Anthropology*. Kant may also have associated hylozoism with Locke, who attributes to atoms an “organizational disposition” that determines the form and continued existence of the living being. See Locke’s *Essay Concerning Human Understanding*, ed. Roger Woolhouse (Harmondsworth: Penguin, 1997), II.27, pp. 298-9.

<sup>88</sup> See *CJ* §75, Ak. 400: “It is quite certain that in terms of merely mechanical principles of nature we cannot even adequately become familiar with, much less explain, organized beings and how they are internally possible. So certain is this that we may boldly state that it is absurd for human beings even to attempt it, or to hope that perhaps some day another Newton might arise who would explain to us, in terms of natural laws unordered by intention, how even a mere blade of grass is produced.”

<sup>89</sup> *MFNS* Ak. 544, emphasis added.

<sup>90</sup> *CJ* §58, Ak. 348-9; §80, Ak. 419. An interesting analysis of these passages can be found in Rachel Jones, “Crystallisation: Artful Matter and the Productive Imagination in Kant’s Account of Genius”, in Rehberg and Jones (eds.), 19-36.

desire and thought that provide the basis on which we judge matter to be living. We judge nature not only according to reason's idea of a purpose, and thus as an analogue of art, but also according to our "internal activity" of thought — our transcendental spontaneity — and thus as an analogue of life.

Neither analogy, Kant says, is sufficient to make self-organizing beings intelligible. If we call natural beings analogues of art, we imagine a rational "artist" and deny organized productivity to nature itself. If we call them analogues of life, we imagine either a soul or a life force inhering in matter, which, for Kant, is unintelligible.<sup>91</sup> "Strictly speaking, therefore, the organization of nature has nothing analogous to any causality known to us".<sup>92</sup> But Kant makes clear that these analogies are the ones that we *do* use, for our own inner causality is the source of the ideas of purpose and purposiveness that we read into nature. We are allowed

to use a remote analogy with our own causality in terms of purposes generally, to guide our investigation of organized objects and to meditate regarding their supreme basis — a meditation not for the sake of gaining knowledge either of nature or of that original basis of nature, but rather for the sake of [assisting] that same practical power in us by analogy with which we were considering the cause of the purposiveness in organized objects.<sup>93</sup>

We think of the purposiveness of organized beings in terms of our own *practical* purposiveness. Our ability to act according to moral purposes is our internal principle of desire that is based on the internal activity of thought or spontaneity. When we think nature to be self-organizing and *purposive*, we think it by analogy with our practical *use* of our spontaneity or "life" to achieve moral aims. We also think of natural beings as *purposes*, as produced by an understanding with regard

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<sup>91</sup> In his earliest work, *Thoughts on the True Estimation of Living Forces* (1747), Kant sought to restate Leibniz's distinction between living and dead forces. At that point Kant identified living force (*vis viva*) with a substance's inner principle of striving or its ability to determine itself (*Living Forces* Ak. 28-29). In line with Kant's rejection of monads and the inward nature of substances, this view was later rejected, but the concept of living force persists into Kant's concept of life in his critical period. See Shell, ch. 2.

<sup>92</sup> *CJ* §65, Ak. 375.

to a final cause, and in this case we think them by analogy with art. We require *both* analogies in order to reconcile the self-organization of natural beings with the inconceivability that matter organizes itself. In providing a descriptive framework for natural production, these two analogies construct a “nature” that is suitable for our moral activity. From the idea of purpose and the analogy with art we can judge nature as created by a supreme cause; from our own inner purposiveness and the analogy with life, we can judge nature as working towards a final purpose.

Armed with these analogies, teleological judgment re-interprets nature by way of a productive comportment towards it, and this productive comportment derives from productive spontaneity itself. The principle of nature as art and the principle of nature as life are superimposed onto nature’s own inconceivable productivity in order to make nature into a whole that is productive on a human scale. Judgment cannot *but* approach organized nature through its own productive framework.<sup>94</sup> Yet this framework that is inevitably applied to nature is nothing other than a *comportment*: an “intentional stance” of reflective judgment itself, whereby organized nature is interpreted as if it had the same productive spontaneity that human beings have.<sup>95</sup> Such productive spontaneity (free causality) can be referred to the original causality of a creator, as Kant had shown in the first and second *Critiques*. The productive spontaneity of the subject, which can only become thematic in the initial relation to beings in the world, now becomes a regulative principle by which objects are organized into “artificial” systems, and by which we are able to consider nature as produced by an intentional creator. Just as we saw in chapter one, the idea of a creator is brought in at the *end* of scientific inquiry, and is based on an initial examination of productive existence. The productive existence of organized matter cannot be conceived, so the productive existence of human spontaneity is used analogically, and on that basis we can speculate about a creator. Nature is not governed by this principle, and natural

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<sup>93</sup> *CJ* §65, Ak. 375.

<sup>94</sup> Hannah Ginsborg, in a similar way, argues that judgment must approach nature through a *normative* framework. See her “Purposiveness and Normativity” in Hoke Robinson (ed.), *Proceedings of the Eighth International Kant Congress* Vol. II (Milwaukee: Marquette UP, 1995), 453-60, and “Kant on Understanding Organisms as Natural Purposes”, in Watkins (ed.), 231-58.

<sup>95</sup> The term “intentional stance” I take from Daniel Dennett’s paper “True Believers” in Dennett, *The Intentional Stance* (Cambridge, MA: MIT Press, 1987), 13-35. It would be worthwhile to assess Dennett’s indebtedness to Kant’s third *Critique*.

science “must not leap over its boundary” in order to absorb the concept of a supernatural cause.<sup>96</sup>

We are quite unable to prove that organized natural products cannot be produced through the mere mechanism of nature. [...] Hence our reason, [...] cannot possibly tell us whether nature’s productive ability, which is quite adequate for whatever seems to require merely that nature be like a machine, is not just as adequate for [things] that we judge to be formed or combined in terms of the idea of purposes (which is what we must necessarily judge them to be) are in fact based on a wholly different kind of original causality, namely, an architectonic understanding, which cannot at all lie in material nature nor in its intelligible substrate. On the other hand, it is just as indubitably certain that the mere mechanism of nature cannot provide our cognitive power with a basis on which we could explain the production of organized beings. Hence the following principle is entirely correct *for reflective judgment*, however rash and unprovable it would be *for determinative judgment*: that [to account] for the very manifest connection of things in terms of final causes we must think a causality distinct from mechanism — viz. the causality of an (intelligent) world cause that acts according to purposes. Applied to reflection, this principle is a mere maxim of judgment; and the concept of that causality is a mere idea. We make no claim that this idea has reality, but only use it as a guide for reflection, which meanwhile continues to remain open to [the discovery of] any basis for a mechanical explanation and never strays from the world of sense.<sup>97</sup>

Judging nature in terms of final causes, and thinking an original, intelligent world cause, is suitable for reflective judgment as a guide to further investigation, but, as we saw in chapter one, we must remain open to the possibility that organization

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<sup>96</sup> *CJ* §68, Ak. 382.

<sup>97</sup> *CJ* §71, Ak. 388-9.

could be explained in the same way that raw matter (“nature like a machine”) is: by nature’s own productive ability. In the absence of such explanations, we use our own productive spontaneity to comport ourselves towards the inconceivable existence of organization. This is a condition that Kant says “attaches inescapably to the human race”.<sup>98</sup>

#### 4.4 Nature and *physis*

Thus the Critique of Teleological Judgment determines nothing about nature, but affirms something about the human subject: that its own productive spontaneity is essential not only for having objective experience, but also for having systematic experience. The relation of being, and the fact that we feel our “life” or productive spontaneity in that relation, makes possible the “second-order” relations of science and morality, in which productive spontaneity is projected onto nature. What is at stake in the *Critique of Judgment* is the suitability of both the object and the subject for the relation of being. This suitability indicates the possibility of a conjoined supersensible substrate of productive spontaneity and productive nature, an underlying unity of subject and object that is thought to make possible the relation of being. This idea of a unified substrate is idea of the transcendental object as identified in chapter three: it is the idea of a common origin for matter and freedom. As an idea, it derives from our concept of objectivity in general, and thus from the relation of subject and object. The *Critique of Judgment* provides justification for our thought that subject and object can relate to one another, and thus leads more conclusively than the *Critique of Pure Reason* did, to the idea of a unified substrate.

Experience in general rests on a productive ontology, to which the interplay between productive nature and productive spontaneity is central, as we saw in chapters two and three. The existence of productive nature, as raw matter, was seen to be a requirement for the activity of productive spontaneity and thus a requirement for epistemological ontology. In the *Critique of Judgment* we see that

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<sup>98</sup> *CJ* §75, Ak. 401.

a system of experience as a whole also emerges from this productive ontology, an interplay between productive organization and productive spontaneity. Productive spontaneity, the feeling of “life”, requires the existence of matter in order to be active, but it does not require that existence to be organized. The organization of matter is a lucky bonus, an affirmation of the ultimate organization of a purposive universe. Unlike matter, the existence of organization is not required by the epistemological ontology. It remains contingent and extraneous, an aspect of nature that exceeds the needs of epistemology and the judging subject. It is in this *excessive* aspect of nature, this existence which is surplus to epistemic requirements and which is beyond our ability to explain it wholly in mechanical, “mathematical” terms, that we see a remnant of something like *phusis* in Kant’s system: nature as self-generating and self-organizing, and as radically different in its production from *techne*.

Interestingly, this is another point that Heidegger misunderstands about Kant. Heidegger refers to the *Critique of Judgment* in his 1939 essay “On the Essence and Concept of *Phusis* in Aristotle’s *Physics* B, I”.<sup>99</sup> He alludes only briefly to Kant’s text, suggesting that Kant represents the height of modern metaphysics which misinterprets Aristotle’s conception of *phusis* and overemphasizes its analogical relation to *techne*. In fact, as I have suggested, Kant’s concept of organized matter is quite similar to Aristotle’s *phusis*, and for both thinkers it is precisely the radical difference of *phusis* or organization from any other kind of production that makes it impossible for us to consider it on its own terms. Heidegger, however, citing one of Aristotle’s many analogies of *phusis* with *techne*, writes:

Is this [...] the only possible interpretation of *phusis*, namely, as a kind of *techne*? That almost seems to be the case, because modern metaphysics, in the impressive terms of, for example, Kant, conceives of “nature” as a “technique” such that this “technique” that constitutes the essence of nature provides the metaphysical

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<sup>99</sup> Trans. Thomas Sheehan, in Heidegger, *Pathmarks*, 183-230.

*ground* for the possibility, or even the necessity, of subjecting and mastering nature through machine technology.<sup>100</sup>

For Heidegger, modern metaphysics gives undue precedence to Aristotle's analogy between *phusis* and *techne*, and thus fully understands nature to be technical. The end-point of this misinterpretation, Heidegger says, is the conclusion that *techne* constitutes the essence of nature. This claim is closely related to Heidegger's argument in *What is a Thing?* that modern science and metaphysics, with Kant as exemplar, anticipate nature to be "mathematical" or already fully prone to measurement, classification and instrumentality. It is also related to Heidegger's claim that the Kantian subject has a productive comportment towards the being of things, and is thus related to his charge that being, for Kant, is equivalent to producedness.

We have seen, however, that Kant does not see the essence of nature to be constituted as a technic; quite the opposite, for he sees nature as having an inconceivable productive ability that is judged regulatively to be technical. It is precisely the self-generation, self-organization and growth of natural beings that are impossible to conceptualize. This impossibility leads to the *necessity* that we use technical principles, if — as Kant and Aristotle both hope — we are to have a coherent system of natural science. Heidegger fails to see, first, that technicity is a *regulative* principle for Kant, and second, that Kant recognizes — just as much as Heidegger himself recognizes — that a productive or technical comportment represents a limitation of human understanding.<sup>101</sup> There is, perhaps, no reason to argue with Heidegger's claim that Kant's use of such a model grounds and justifies the technological domination of nature by humans. But Heidegger makes this claim from the wrong angle: the point is that technological domination is possible in Kant's system because *techne* constitutes "the peculiar character of my cognitive powers", not because it constitutes the essence of nature.<sup>102</sup>

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<sup>100</sup> Heidegger, *Pathmarks*, 220.

<sup>101</sup> This is a point also made by Dennis Schmidt; see his "Economies of Production: Heidegger and Aristotle on *Phusis* and *Techne*" in *Crises in Continental Philosophy*, ed. Arleen B. Dallery and Charles E. Scott (Albany: SUNY Press, 1990), 147-159.

<sup>102</sup> *CJ* §75, Ak. 397-8.



Furthermore, Kant is explicit that our anticipation of nature as fully classifiable — i.e. as a system that the understanding can grasp — is governed by a principle that reflective judgment gives only to itself, and not to nature. Not only is Heidegger wrong to say that technicity constitutes the essence of nature for Kant; he is wrong to imply that nature is constituted in advance as fully classifiable and instrumental. “Nature in general” is indeed determined in advance as measurable (as we saw in chapter two), and our judgment is indeed guided by the principle that empirical nature can be fully grasped or classified. But Kant does not claim that nature as a whole can be grasped by us, for that is the unanswerable question posed by the *Critique of Judgment*. The subject does indeed have a productive comportment towards things, but this comportment does not result, as Heidegger suggests it does, in an understanding of being as producedness. Rather, it is the *relation* of being, and the fact that the subject feels its own productive spontaneity in that relation, that results in the projection of human productivity onto nature. Through this comportment, nature is not determined as produced, but as humanly productive, to make sense of the inconceivability and excess of *natural* production.

The existence of productive nature, for Kant, exceeds the requirements of productive spontaneity, and for this reason the mind may never be able to encompass the world as a whole. At least, not within the critical system. In the next chapter, looking at the *Opus Postumum*, we will see Kant adopt a very different position.

#### Chapter 4 Summary

In this chapter I have suggested that in the *Critique of Judgment*, Kant makes explicit the two themes I have been concerned with: the relation of being, and the subject’s productive comportment towards nature. These two themes are discussed in terms of aesthetic judgment and representation on the one hand, and teleological judgment and life on the other. Aesthetic judgment, I argued, because it is concerned with the transcendental form of a thing, is concerned with its conditions for cognition in general. The judgment of taste is an epistemic judgment for Kant,

establishing and affirming the knowability in general of the thing represented. The judgment of taste and the pleasure occasioned by it thus concern the being of the object: its subject-relationality in general. Kant's association of beauty with being is not aestheticist but is epistemic and ontological. Being is located in the realm of representation.

I found that "life" for Kant refers to the self-active productivity, or spontaneity, of the subject, and that the feeling of life is part of the judgment of taste in which the knowability of the thing is established. In the Critique of Teleological Judgment, I argued, Kant says that we use this concept of life to understand natural beings that are otherwise incomprehensible: organized, self-producing beings. We base our comportment towards nature on productive spontaneity itself, and thus have a productive comportment towards nature. Kant explains that we must take this comportment if we are to understand nature as a system, and if we are to ground scientific and moral systems on nature. The subject's orientation towards nature is productive and ontological.

## Chapter 5

### Life, force and original relation: the *Opus Postumum*

What necessarily (originally) forms the existence of things belongs to transcendental philosophy.<sup>1</sup>

#### 5.1 Problems of production

The aim of this thesis has been to argue for a productive ontology in Kant's texts. Initially, I distinguished between existential and epistemological ontologies, the former being Kant's philosophy of existence, and the latter being his theory of the structure of concepts and principles that make knowledge possible. We can see that these ontologies can be characterized in terms of matter and form: existential ontology is bound up with Kant's matter-theory, while epistemological ontology concerns the analysis of the formal element that human understanding brings to experience. We have seen that these ontologies are based not on static concepts of presence, substance, or thought, but on dynamic, productive concepts of force (on the existential-material side) and spontaneity (on the formal-epistemic side). These are two productive ontologies, the objects of which are thought to be in productive relation to one another. Spontaneity produces a relation to the ongoing productive process of matter, which relation constantly produces subjectivity, objectivity, and knowledge; it is the relation of being. Being, as the original subject-object relation, requires both the existence of matter and the formal structure of knowledge-conditions; thus Kant's ontology requires both existential and epistemological

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<sup>1</sup> Kant, *Opus Postumum*, Ak. 21:7, p. 256. References to the *Opus Postumum* (OP) will be both to the *Akademie* volume and page numbers (which are not in chronological order), and to the Cambridge edition page numbers.

aspects. Indeed, as I believe I have shown in the preceding chapters, it requires their inseparability.

Despite the success of using the concept of production as a framework for determining a Kantian ontology, however, a number of problems have arisen, precisely over the nature of production. First, there is the problem of original production, which is particularly evident in the first *Critique's* Paralogisms and Antinomies. Kant's analyses of the material and transcendental conditions of experience have led us to the productive grounds of both existence and knowledge, but have left us without a principle by which to understand the ways in which those grounds themselves are produced, and without a principle by which to understand how the productive relation between those grounds is possible. We are lacking principles that explain how existence is produced, how spontaneity is produced, and how it is that spontaneity *can* relate to productive nature at all. What we are lacking, in short, is a principle of original production. Such a principle has been tentatively provided by the idea of the supersensible substrate (and variants of it, including the idea of the transcendental object): Kant has suggested that the origin of matter and spontaneity might be thought to be united in a single underlying substrate, which would also explain the possibility of their original relation. Kant never assumes that this is an adequate answer, as far as theoretical philosophy is concerned.<sup>2</sup> An appeal to the supersensible indicates the limits of human knowledge, the bounds of finite understanding constrained by its own formal conditions. Kant has been obliged to relegate original production outside these bounds, precisely because it makes these bounds possible.

There is also, second, the question of material production, which is made thematic in the *Metaphysical Foundations of Natural Science* and the *Critique of Judgment*. In the *Metaphysical Foundations*, Kant analyzed the empirical concept of matter *a priori* and found that the fundamental forces of attraction and repulsion, in constant conflict, could be thought to make up its constituent elements. But this view, along with Kant's rejection of atomism, makes problematic an account of the diversity and generation of matter. If matter is to be understood not as bodies separated by empty spaces, but as a field of dynamical

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<sup>2</sup> Theoretical philosophy stands opposed to practical philosophy, for which the practical idea of a supersensible substrate *is* adequate to explain the origin of the moral law.

conflict, what accounts for our perception of individual bodies? While the concept of the conflict of the forces explained how matter in general fills a space, it could not explain how matter is formed into determinate bodies with different shapes, sizes, powers, and abilities. Kant admitted that from the concepts of the fundamental forces, he could not explain the specific variety of matter. The case of organic matter in the third *Critique* was even more problematic, as no dynamical or mechanical principle could be found to account for the self-organization and self-production of natural purposes. Kant's rejection of hylozoism meant that the power of self-organization could not be attributed to matter at all, and organisms had to be explained through a regulative principle of reflective judgment. In both these texts, we lack principles of diversity and generation: principles explaining how matter forms distinct bodies, and how bodies organize and reproduce themselves.

What we need is a Kantian analysis of the concept of production. This would allow us to see how original production and material production are related, and thus enable us to complete our exposition of Kant's productive ontology. Kant provides us with the beginnings of such an analysis in what is known as the *Opus Postumum*, the large collection of papers written between approximately 1796 and 1803 and left unpublished at the time of his death.<sup>3</sup> My diagnosis that this text coheres perfectly with my aims is somewhat facetious, for the thirteen fascicles of the *Opus Postumum* — comprising 527 written pages of notes, fragments, and sustained treatments of certain topics — are so varied and wide-ranging that any study of Kant could find material both to affirm and to contradict its position (though few studies have so far made use of it).<sup>4</sup> The text shows Kant both at his most materialist and at his most idealist, and suggests a rethinking of earlier

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<sup>3</sup> For a history of the text and speculation as to the dating of its various sections, see Eckart Förster's Introduction to the Cambridge edition of the *Opus Postumum*. Förster indicates that Kant prepared a number of sections for publication, including some of the ether proofs which I will discuss.

<sup>4</sup> Förster and Guyer, for instance, maintain that with the *Opus Postumum* Kant affirms and develops the transcendental idealism of the critical period; Edwards and Tuschling, by contrast, argue that Kant alters certain fundamental tenets of his critical philosophy and thereby overturns transcendental idealism. See Förster, *Kant's Final Synthesis*; Paul Guyer, "The Unity of Nature and Freedom: Kant's Conception of the System of Philosophy", in Sally Sedgwick (ed.), *The Reception of Kant's Critical Philosophy* (Cambridge: CUP, 2000), 19-53; Jeffrey Edwards, *Substance, Force, and the Possibility of Knowledge*; Burkhard Tuschling, "Apperception and Ether: On the Idea of a Transcendental Deduction of Matter in Kant's *Opus Postumum*", in Förster (ed.), 193-216.

positions that leads us to re-assess the basic tenets of transcendental idealism. It is a text that is exciting, confusing, and at times frustrating.

The *Opus Postumum* cannot be read as a single coherent text, but should be approached as a number of philosophical threads to be followed. An interpretation of it, as Förster has noted, is best addressed not to the text as a whole, but to a selection of its key threads.<sup>5</sup> One thread is decidedly concerned with addressing the questions of production that Kant left unanswered in his earlier texts. This can be attributed to the goal towards which Kant was working: a Transition from the *Metaphysical Foundations of Natural Science* to *Physics*. Put simply, this Transition project is one from *a priori* analysis to systematic empirical investigation.<sup>6</sup> *Physics*, on Kant's view, is a system of laws and principles concerning the specific forces of nature. For physics to be possible, philosophy must provide *a priori* principles for the systematic classification of the specific, empirically given, forces of matter. Furthermore, as was the case in the *Critique of Judgment*, we must have justification for assuming that nature is appropriate for such a classification.

However, neither the *a priori* concepts of the *Metaphysical Foundations* nor the third *Critique's* principle of the purposiveness of nature is sufficient to ground physics. The analysis of the concept of matter in the *Metaphysical Foundations* resulted in very general concepts of the fundamental forces, but this analysis cannot supply physics with a guideline for investigating the empirical properties of specific (non-fundamental) forces.<sup>7</sup> The third *Critique's* principle of the formal purposiveness of nature assures that nature *can* be investigated and classified systematically, based on the assumption that nature *does* specify its laws according to a principle, but it does not give us specific instructions as to how nature should be investigated so that the systematicity of its specific forces should become apparent. The Transition from the *Metaphysical Foundations* to *Physics* mediates between the *a priori* concepts of the *Metaphysical Foundations*, and the systematic empirical concepts of the third *Critique*. It is needed "to specify a method of bringing about the systematic knowledge of physics by providing *the*

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<sup>5</sup> Förster, *Kant's Final Synthesis*, x.

<sup>6</sup> See Förster's Introduction, *OP* xxxiv-xxxv.

<sup>7</sup> Förster's Introduction, *OP* xxxiv; cf. *Ak.22:282*, p. 100.

*outline of a system* of all objects of the outer senses”.<sup>8</sup> A system of all actual material objects must be anticipated *a priori*, in outline, and achieving this outline will be the Transition.

Kant’s general project is thus a new and intriguing one. It involves the search for a set of concepts that are neither entirely *a priori* nor entirely empirical, but which belong both to metaphysics and *a priori* concepts, and to physics and principles of experience. Kant says that these concepts must instruct us with regard “to the *a priori* principles of the possibility of experience, hence of the investigation of nature”.<sup>9</sup> They will determine how we anticipate the systematicity of the specific forces of material nature, and thus how we understand specific types of bodies to be formed. The Transition project is thus, in part, an attempt to sketch out in advance a physical system that will explain material production. Kant had considerable difficulty arriving at the concepts he required, but his attempt to find a new set of synthetic *a priori* principles that make specific types of experience possible led him to a concept he had long entertained in his philosophy of nature: the concept of ether. With this powerful concept, as I will show, Kant is able to ground a systematic physics, ground the possibility of experience, and explain material production. The concept of ether also has significance for the retrospective interpretation of transcendental apperception, affection, and the relation of being.

## 5.2 A solution to the problem of generation

The failure of Kant’s *Metaphysical Foundations* to account for material production — for how matter produces diverse bodies — is one that Kant acknowledged. While Kant felt that he was able completely to “present the moments to which [the] specific variety [of matter] must all together admit of being reduced *a priori*”, he was “unable to furnish an adequate explication of the

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<sup>8</sup> Förster’s Introduction, *OP* xxxv, emphasis mine; based on *OP* Ak. 21:492: “bringing about a systematic cognition of physics [...] cannot be done through merely collected experiences because *the sketch of a system* is missing that must be given *a priori*” (not included in the Cambridge edition, quoted in Förster, *Kant’s Final Synthesis*, 6).

possibility of matter and its specific variety from the fundamental forces".<sup>10</sup> The analytic reduction of the concept of matter to its most basic elements does not lead directly to a synthetic determination of how those basic elements produce individual bodies or effects. It seems that Kant was reminded of this problem in 1792, when Jakob Sigismund Beck, commissioned to write explanatory excerpts of Kant's major writings, wrote to Kant to ask how his dynamical theory could explain the differences of density in matter.<sup>11</sup> In reply, Kant admitted that his tentative solution — that universal attraction (i.e. gravitation) is the same in all matter and that only repulsion differs and thus accounts for differences in density — "leads in a way into a circle that I cannot get out of".<sup>12</sup> Förster argues convincingly that this "circle" (which is quite difficult to see) arises from the problem that universal attraction (i.e. gravitation), because it is proportional to the mass or density of matter, depends causally on density — which is then said to be the effect of attraction.<sup>13</sup>

The problem of the diversity of material bodies also forms the basis for Schelling's critique of Kant's *Metaphysical Foundations* in his "First Draft of a Philosophy of Nature" (1799) and "Universal Deduction of the Dynamical Process" (1800). Schelling argues that from an analysis of the empirical concept of matter, and the fact that matter fills a space to a determinate degree, the two fundamental forces of attraction and repulsion can be deduced, but an explanation of the production of bodies from these two forces requires some *third* force or ground.<sup>14</sup> This is required if the explanation of production is not to be circular: in order to fill a determinate space, repulsive force must be limited to a certain degree by attractive force. Yet this attractive force must itself be limited to a certain degree. The degree of its limitation cannot, for Schelling, be explained by the repulsive force, for that would already have to be limited by the attractive

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<sup>9</sup> *OP Ak.* 21:362-3, not included in Cambridge edition, quoted in Förster, *Kant's Final Synthesis*, 16.

<sup>10</sup> *MFNS Ak.* 525.

<sup>11</sup> Letter from J.S. Beck, 8 Sept. 1792, *Correspondence Ak.* 11:359-61, pp. 426-8. See Förster, *Kant's Final Synthesis*, 33-35.

<sup>12</sup> Letter to J.S. Beck, 16 Oct. 1792, *Correspondence Ak.* 11:375-7, pp. 434-6. See also *MFNS Ak.* 533-4.

<sup>13</sup> *Kant's Final Synthesis*, 34-5. See also Kant's comments on Beck's letter, *Correspondence Ak.* 11:361-5, pp. 428-32.

<sup>14</sup> Förster, *Kant's Final Synthesis*, 39-41.



force, and so on. Schelling argues instead — suggesting that this position is implicit in Kant’s dynamical theory — that the degree of limitation of both forces is determined by a ground lying outside the two forces. This ground, for Schelling, is a certain original unity of all matter: “one can see that the empirical datum required for the construction of a determinate degree of the filling of space is the universal concatenation of all matter among itself”.<sup>15</sup>

It is unlikely that Kant was influenced by these particular texts of Schelling’s when he was thinking through the problem of material diversity, not least because Kant arrived at a solution several years before these texts were published.<sup>16</sup> In order to resolve the “circle” he identified, Kant began to consider different types of attraction, and came to the conclusion that *both* local cohesive attraction (attraction in contact) *and* universal gravitational attraction (attraction at a distance) are required to account for individual bodies of differing densities. This led him to posit a universal matter surrounding the cohesive-repulsive bodies, which is composed of universal gravitational attraction and expansive repulsion. This universal matter he calls the ether, not as an object of experience, but as “the idea of an expansive matter whose parts are not capable of any greater dissolution, because no attraction of cohesion is to be found in them”. The force of cohesion does not pertain to the ether itself, but to bodies which result from the oscillating forces of the ether. Bodies, which necessarily include cohesion, are thus differentiated from the dynamical field of matter as a cosmic whole:

To assume such a matter filling cosmic space [i.e. ether] is an inevitably necessary hypothesis, for, without it, no cohesion, which is necessary for the formation of a physical *body*, can be thought.

All matter, however, is originally combined in a whole of world-attraction through universal gravitation, and thus the ether itself would, however far it may extend, be in a state of compression, even in the absence of all other matter. Such

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<sup>15</sup> Schelling, qtd. Förster, *Kant’s Final Synthesis*, 41.

<sup>16</sup> See Förster, *Kant’s Final Synthesis*, 41. Kant was probably familiar with Schelling’s early work, including the *Ideas for a Philosophy of Nature* of 1797, which presents a dynamical theory of matter strongly influenced by, and not especially critical of, Kant. See *OP* 274-5, n.89 for Förster’s

compression must, however, be oscillating, because the first effect of this attraction in the beginning of all things must be a compression of all its parts toward some midpoint, with consequential expansion, and which, because of the elasticity [of the world-matter], must hence be set in continuous and everlasting oscillation. The secondary matter distributed in the ether is thereby necessitated to unify itself into bodies at certain points and so to form cosmic bodies. This universal attraction, which the matter of the ether exerts upon itself, must be thought of as a limited space (a sphere), consequently as the one universal cosmic body, which compresses itself in a certain degree through this attraction. It must, however, be regarded, just in virtue of this original compression and expansion, as eternally oscillating, and, hence, all cohesion can only have been produced (or be produced further) by the living force of impact, not the dead force of pressure.<sup>17</sup>

Probably written in 1796-7, this is Kant's first clear statement of a post-*Metaphysical Foundations* theory of matter, and his first explanation of material production. Though the mechanics of cohesion may not be completely clear, we can nevertheless summarize Kant's general position. In order to account for "the formation of a physical *body*", Kant distinguishes between the universal attraction and repulsion of an ether, and the cohesive attraction and repulsion that fill a space to a determinate degree. He thus distinguishes a primary, original matter from the "secondary matter" originally dissolved and distributed in it. The primary matter (ether) is composed of universal attraction, which compresses towards a midpoint of the universe, and repulsion, which expands outwards again. The ether is thus in a "continuous and everlasting oscillation" of compression and expansion that causes secondary matter to unify into bodies through cohesive attraction balanced

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speculation on Kant's familiarity with Schelling, and see in particular chapters 4 and 5 of Book II of Schelling's *Ideas for a Philosophy of Nature* for Schelling's early Kantian dynamics.

<sup>17</sup> *OP* Ak. 21:378-9, p. 12. My discussion addresses the scientific issues and problems in the *OP* only in a very limited way. For a discussion of the science behind the *Opus Postumum*, particularly as it relates to the emerging science of chemistry, and a diagnosis of the problems with Kant's matter-theory, see part two of Friedman's *Kant and the Exact Sciences*, and chapters 7 and 8 of

by repulsion. The oscillation of the ether “produces” the cohesion of secondary matter into bodies, not simply by compression (i.e. universal attraction), but through the “living force” of generating impact between repulsive forces. The ether is a dynamical field of reciprocal influence that produces bodies.<sup>18</sup>

Thus Kant resolves his “circle” of 1792 by hypothesizing that cohesive attraction, which does not depend on the density of a given body, is what counterbalances repulsion, and by arguing that cohesion and repulsion depend upon the “living force” of the ether. As Förster puts it,

the quantity of matter, and the differences in density, [are] thus a function of this universally distributed *Weltstoff* whose internal pulsations segregate the heterogeneous materials originally dissolved in it, thereby causing the formation of bodies of different types and textures.<sup>19</sup>

Not only does the ether or “world-material” provide a non-corpuscular explanation of the production of individual bodies; it also resolves another problem from the *Metaphysical Foundations*, that of the cause of the fundamental forces. As I showed in chapter two, the “inconceivability” of the forces — the impossibility of deriving their concepts from any more basic concept — denied the forces any real possibility, and signaled the problem of positing a ground for existence outside of existence itself. It now seems that Kant has provided the concept of ether as a concept from which the fundamental forces of attraction and repulsion (cohesion and impenetrability) of *secondary* matter can be derived, meaning that these forces can no longer be called “fundamental”. This may be why Kant refers to them simply as “the moving forces” throughout the *Opus Postumum*. This move, of course, simply shifts the burden of underivability onto the “original” forces of the ether (gravitation and expansion): where do these original forces, and this original

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Edwards’ *Substance, Force, and the Possibility of Knowledge* (which include a critique of Friedman).

<sup>18</sup> I will have more to say about “living force” shortly. Howard Caygill has suggested in another context (“Force and Productivity”, a paper given at a one-day workshop on Merleau-Ponty and the Philosophy of Nature, University of Warwick, 30 May 2003) that we might think of such a field as energy, and that the link Kant implies between energy, heat (an effect of ether or caloric) and life is a significant one.

primary matter, come from? What justifies us — aside from the need to explain material diversity — in positing this primary matter? If Kant does not raise this question immediately, it is because it is the implicit question leading to his proofs for the existence of this primary matter; the question necessitates what Tuschling calls a “transcendental deduction” of the ether.<sup>20</sup> What justifies us in positing this primary matter is the possibility of experience itself.

Before we look at these proofs, some background on the ether is called for. As we have seen, the ether is characterized as a single whole, filling cosmic space through the oscillation of force; the ether can be described as a plenum or dynamical continuum. This concept was not new to Kant, nor to eighteenth-century science: it had been invoked in Newton’s *Opticks* as a conjecture on the cause of gravitation, and Boscovich in 1763 had formulated a theory that individual material bodies emerge from an oscillating dynamical continuum.<sup>21</sup> Kant discusses ether in a number of his early texts, including the *Universal Natural History and Theory of the Heavens* of 1755, in which he claims that all bodies are generated from an elementary matter (though not a dynamical one).<sup>22</sup> Kant develops a concept of ether as dynamical in the *Physical Monadology* of 1756, and continues to entertain the notion that a theory of matter must be based on the concept of a dynamical cosmic ether well into the 1770s, as his *Reflections on Physics* from that decade indicate. Indeed, it appears that Kant had already worked out a version of his cohesion explanation for the diversity of bodies at that time.<sup>23</sup> Based on this evidence, Edwards contends that Kant never ceased to believe that a dynamical continuum was at the basis of matter and that it formed an essential part of the transcendental theory of experience.

It may be true that Kant never ceased to *believe* that ether was at the basis of matter. But in the critical period he makes the presupposition of a dynamical continuum a *transcendental* principle for the possibility of experience, and marginalizes the question of whether dynamical ether actually causes the

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<sup>19</sup> Kant’s *Final Synthesis*, 45; see also 70-1.

<sup>20</sup> Tuschling 200-1.

<sup>21</sup> Edwards, *Substance, Force, and the Possibility of Knowledge*, 101-5.

<sup>22</sup> See Edwards, *Substance, Force, and the Possibility of Knowledge*, 112-17; Kant, *Universal Natural History and Theory of the Heavens*, trans. W. Hastie (Ann Arbor: University of Michigan Press, 1969).

<sup>23</sup> Edwards, *Substance, Force, and the Possibility of Knowledge*, 123-32.

generation of diverse material bodies (which may explain his “forgetting” the cohesion explanation in the *Metaphysical Foundations*). Instead of holding to his pre-critical position that a dynamical continuum accounts materially for bodies, in the first *Critique* Kant makes the principle of a dynamical continuum a transcendental condition of possibility for objects of experience generally. Two transcendental principles from the first *Critique* are relevant here. The first is the principle of the Anticipations of Perception, as discussed in chapter two, which states that all objects of sensation must have some degree of reality; that is, they must not be qualitatively nothing. This shows that empty space could not be an object of perception or experience, for empty space would have no degree of reality.<sup>24</sup> Kant does not prove the impossibility of empty space here, but the impossibility of its perception — he shows that *everything* we perceive, including the space between objects, has some degree of reality and therefore presence. Everything we perceive and experience is qualitatively “full” of presence.

This already suggests that experience is *of* a full field, and the second transcendental principle relevant to our concerns here states that this field is determined as one of dynamical community. The principle of the third analogy states that experience of coexistence is possible only on the transcendental assumption of the thoroughgoing reciprocity or community of all substances.<sup>25</sup> We experience things as objectively existing at the same time and as following one another reciprocally in our perception. If each of these things were isolated (i.e. separated by empty space), Kant says, then our perception could not advance from the one to the other and back again; because empty space cannot be perceived, we would have only isolated individual perceptions and not one experience of multiple coexisting things. In other words, our experience of things as existing at the same time presupposes that they exist as part of the same space. Furthermore, it presupposes that they exist in reciprocal interaction, for in order for us to represent the coexistence as *objective*, the things must be experienced as determining one another reciprocally, just as our perceptions of them follow one another reciprocally.<sup>26</sup> We must be employing a transcendental principle of the

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<sup>24</sup> CPR A172 / B214.

<sup>25</sup> CPR A211 / B257.

<sup>26</sup> CPR B257.

reciprocal interaction of all objects of experience in a single, full space. The transcendental principle of reciprocity can thus be restated in terms of dynamical community:

Each substance [...] must therefore contain in itself the causality of certain determinations in the other substance, and at the same time the effects of the causality of that other; that is, the substances must stand, immediately or mediately, in dynamical community, if their coexistence is to be known in any possible experience.<sup>27</sup>

It is a condition of the possibility of our experience of coexistence that we experience things as standing in dynamical community; that is, as mutually interacting in a continuum without the intervention of empty spaces. This is, of course, a *transcendental* principle constitutive of *experience*; it does not prove or suggest that the material world really *is* a dynamical continuum.<sup>28</sup> If it *did* prove that, Kant would have no problem asserting the actuality of the fundamental forces, but it is clear in *Metaphysical Foundations* that the actuality of the forces cannot even be assumed. Just as he did in the first and second Analogies, however, Kant provides the empirical criterion through which we recognize the validity of this principle: he speaks of the “continuous influences” that invariably lead our senses from one object to another, such as the light that produces a community between our eyes and the celestial bodies.<sup>29</sup> He also notes that reason’s idea of the unity of the world-whole, in which all appearances are connected, is a consequence of the transcendental principle of community.<sup>30</sup>

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<sup>27</sup> CPR A212-3 / B259.

<sup>28</sup> I disagree wholeheartedly with Edwards on this. Edwards (in his otherwise excellent book) argues that the dynamic continuum of the third analogy is an *a priori* necessary *material* condition of possible experience. Aside from the lack of textual evidence to support this position and its inconsistency with Kant’s general argument, this interpretation would raise serious problems for the *Metaphysical Foundations*, where Kant argues that the concept of matter is *reducible* to that of a dynamical continuum. The *existence* of a dynamical field is not a necessary condition for this reduction or for the experience of coexistence, but the transcendental *principle* of dynamical community *is*. See Edwards, *Substance, Force, and the Possibility of Knowledge*, Introduction and chapters 1-3. Of course, Kant’s *belief* in an existing dynamical continuum would not have contradicted the transcendental principle, as Eric Watkins argues in “Kant on Rational Cosmology” (Watkins (ed.), 83-6).

<sup>29</sup> CPR A213 / B260.

<sup>30</sup> Footnote to CPR A218 / B265.

On the basis of these transcendental principles, Kant is able to say in the *Metaphysical Foundations* that it is a consequence of his dynamical theory that we can think of a matter, such as the ether, that entirely fills its space without any void. He suggests that we may consider the ether *a priori* along with attractive and repulsive force.<sup>31</sup> At the end of the *Metaphysical Foundations* Kant even conjectures that ether may be thought to be “the ground of the possibility of the composition of a matter in general”, a supposition that is “supported by many reasons” but remains “quite hypothetical”.<sup>32</sup> In the *Metaphysical Foundations*, Kant postulates that matter, insofar as it fills a determinate space, is reducible to the concept of the conflict of attractive and repulsive force, hypothetically dispersed within a dynamical continuum, the consideration of which is made possible by a transcendental principle, but the real possibility of which cannot be established.

In the above-quoted passage from the 1796-7 section of the *Opus Postumum*, Kant postulates ether as a mere hypothesis, though it is “indispensably necessary” for his new theory of material diversity. This is already more committed to the real possibility of the forces than Kant had been in *Metaphysical Foundations*, and this commitment is strengthened. In the sections of the text called “Übergang 1-14” (called the Ether Proofs in the English translation), probably written in 1799, Kant clearly thinks of ether as a categorically given material without which outer experience would be impossible.

There exists a matter, distributed in the whole universe as a continuum, uniformly penetrating all bodies, and filling all spaces (thus not subject to displacement). Be it called ether, or caloric, or whatever, it is no hypothetical material (for the purpose of explaining certain phenomena, and more or less obviously conjuring up causes for given effects); [...] Its actuality can be postulated prior to experience (*a priori*) for the sake of possible experience.<sup>33</sup>

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<sup>31</sup> *MFNS* Ak. 534.

<sup>32</sup> *MFNS* Ak. 563-4.

<sup>33</sup> *OP* Ak. 21:218-19, pp. 69-70.

This clearly marks a development, not only for Kant's theory of matter, but for his transcendental philosophy as a whole. For Kant now claims not simply that ether is a useful hypothesis for explaining individual bodies, but that the ether *exists*, and that this existence can be postulated *prior to experience*, for the sake of experience. A dynamical continuum is no longer a transcendental principle without which experience would not be possible; it is now a *material* condition without which experience would not be possible. In addition to accounting for the material possibility of diverse bodies, ether is made to account for the possibility of the experience of diverse bodies. Kant needs to establish the existence of ether *a priori*, since ether cannot be experienced as such. This goal suggests, peculiarly, that Kant will have recourse to a type of ontological proof.

### 5.3 The ether proofs

The first *Critique* gives us the principles (1) that there can be no experience of, or inference to, empty space; (2) that the existence of matter can be known to us only through its influence on our senses; and (3) that matter cannot be thought as atoms separated by empty spaces, but must be thought as a continuum of force. In the *Opus Postumum* this continuum is conceived in a much more determinate way: as the "primary matter" in which all bodies are originally dissolved, distributed, and formed by dynamic oscillation, it is the totality of the reciprocal interactions of material bodies. As the original totality of all matter, it is the original totality of all motion, producing and sustaining the motion and generation of bodies. But whereas existent beings were previously thought to be grounded only by other existent beings, Kant now suggests that existent beings are grounded by the totality of existence itself. This suggests a return to the idea of the sum-total of all reality, not only as the ground of the qualities of things, but as the ground of their existence. The ether is a sum-total of all matter and force, but the totality is clearly more than the sum of its parts.<sup>34</sup>

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<sup>34</sup> For a similar argument, see Mark Wollman, "The Development of Kant's Notion of the 'Sum Total of All Possibilities' and its Application to Science", in Robinson (ed.), 341-8.



The totality is thought to be self-active. Kant asserts that the infinite regress of “mechanically produced motion” must be explained by “a matter in space and time, which moves and is moved without beginning or end, and which, infinitely divided, conserves all matter in motion”.<sup>35</sup> Ether is thus characterized as the continuous and all-pervasive dynamical activity of keeping bodies in motion and interaction: it is “a self-subsistent matter, penetrating all bodies, and unceasingly and uniformly agitating all their parts”.<sup>36</sup> The proposition that there are physical bodies presupposes that there is some matter whose moving forces are able to generate bodies spontaneously.<sup>37</sup> But Kant’s ongoing insistence that spontaneity cannot be attributed to matter (it would “contradict the concept of matter”) means that this spontaneity cannot be exhibited by matter as we know it.<sup>38</sup> Rather, generation must have a first beginning in some original self-activity

whose possibility is indeed incomprehensible, but whose originality (as self-activity) is not to be doubted. Thus there must exist a matter which, as internal, penetrates all bodies, and, at the same time, moves them continually.<sup>39</sup>

With this, Kant suggests that we must at least *think* of the ether as being the original self-active ground of physical bodies and their motion. Since matter cannot be thought to be spontaneous, and since the ether is characterized as the original self-subsistent, self-active ground of nature, the ether must be thought of as *more* than the sum of all material forces. But to avoid attributing an *immaterial* principle of a “world-soul” or an understanding to the totality of matter, Kant concedes that matter as a totality includes a power of self-activity that is not an understanding. Ether includes a *vis viva* or “living force” that works by impact and is sufficient to move and produce inorganic bodies through cohesion, but not a *vis vivifica* or “vivifying force” that would be sufficient to produce *organized*

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<sup>35</sup> *OP Ak.* 21:227, p. 75.

<sup>36</sup> *OP Ak.* 21:215-6, p. 67.

<sup>37</sup> *OP Ak.* 21:216, p. 68.

<sup>38</sup> *OP Ak.* 21:227, p. 75.

<sup>39</sup> *OP Ak.* 21:216, p. 68.

bodies.<sup>40</sup> (Confusingly, Kant also calls the *vis vivifica* “vital force”, i.e. a force that produces life; “living force”, by contrast, is a thing’s inner impetus to motion.) The ether is characterized as the inner dynamic activity of nature that can produce inorganic bodies through cohesion, but that cannot produce organic bodies, since their production is presumed to involve concepts. The generation of organized beings remains a problem within Kant’s new system.

As the complex of forces immanent to inorganic bodies, the ether is not a productive *thing* external to the bodies it produces. The ether moves things *internally*: it does not set matter in motion from the outside, but rather sets each of the parts of matter in motion relative to every other part. The ether is not external to the bodies we experience, but is the totality of force, the dynamical “horizon”, within which bodies can arise and move. As this “horizon”, ether is the concept of the spontaneous system of forces that materially grounds all of nature and experience. But this cannot be just a hypothesis: Kant needs to demonstrate the existence of this self-subsistent matter (“ether, or caloric, or whatever”<sup>41</sup>), for the physical possibility of the diversity of bodies is otherwise thrown into doubt. We must assume the existence of ether if experience of determinate spaces, and thus of individual bodies, is to be possible.

Kant’s transcendental argument for the existence of ether starts from the fact that we do have experience of determinate spaces. Space is thus an *object of experience*. But the Transcendental Aesthetic states that we have only a pure *a priori* intuition of space; this alone does not amount to experience. Experience of a determinate space requires the unity of consciousness synthetically to bring about a determinate combination of the manifold.<sup>42</sup> In other words, we must have exercised the synthetic unity of apperception upon *some material*:

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<sup>40</sup> *OP* Ak. 22:210, p. 30. For an argument that Kant’s theory of the ether as “living force” does not allow his anti-hylozoism to be upheld, see Paul Guyer, “Organisms and the Unity of Science”, in Watkins (ed.), 259-81. Kant does speculate that a “world-soul” may be possible external to matter, making organized bodies possible; see, e.g., *OP* Ak. 22:547-8, p. 85. Förster (*OP* p. 274) suggests that Kant’s use of the term “world-soul” here derives from Schelling, for whom the term refers to the unconsciously producing principle that underlies the continuity of organic and inorganic nature; Schelling associates the world-soul with ether.

<sup>41</sup> Kant uses the terms “caloric” and “ether” interchangeably, except in contexts where he is talking specifically about heat, none of which I refer to here. As Edwards indicates, Kant had identified ether with caloric as early as his 1756 *Physical Monadology*.

<sup>42</sup> *CPR* B137-8.

The ground for this assertion [of the existence of ether] is: Intuitions in space and time are mere forms, and, lacking something which renders them *knowable* for the senses, furnish no real objects whatsoever to make possible an existence in general (and, above all, that of magnitude). Consequently, space and time would be left completely empty *for experience*. This material, therefore, which underlies this generally possible experience *a priori*, cannot be regarded as merely hypothetical, but as a given, originally moving, world-material; it cannot be assumed merely problematically, for it first signifies intuition (which would otherwise be empty and without perception).<sup>43</sup>

Just as Kant argued in the Transcendental Aesthetic, space and time as the forms of outer and inner sense do not *on their own* give us experience of space and time as *objects*; for that, some material is required, and this material must *actually exist* if we are to have experience of space and thus experience of determinate bodies. Without this material, apperception would have nothing to unify, and space as pure intuition would be “empty” as far as experience is concerned. We do, however, have experience of determinate spaces. So we can assert *a priori* that some material exists prior to experience, and that this material makes experience materially possible.

With this Kant has not yet shown that this material must be the ether, which he has characterized as space-filling and all-pervasive. For this step of the argument Kant reminds us that space must be materially full if we are to have experience of a plurality of appearances. This follows from the third analogy: appearances must be viewed as a dynamical continuum without empty spaces if we are to experience their simultaneity. Furthermore, we can only discern a plurality of appearances if they have difference of location.<sup>44</sup> But before difference of location can be assigned to individual objects, Kant says, the space that those individuals are *in* must be an object of experience. Taken on a cosmic scale, it must be possible for

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<sup>43</sup> *OP Ak.* 21:217, p. 68, emphases added.

space as a whole to be an object of experience, if a plurality of appearances can be experienced in it, and space as a whole must therefore be full. Space as an object of experience, as we have seen, relies on some existing material; if space as a whole is to be an object of experience, it must rely on some existing material that fills space completely. This material is the self-subsistent, originally moving, all-pervasive ether, “space thought hypostatically”.<sup>45</sup>

There must first be a matter filling space, ceaselessly self-moving by agitating forces, [...] before the location in space of every particle can be determined. This is the basis for any matter as object of possible experience. For the latter is what first makes experience possible. This space cannot be filled with bodies, unless matter has previously filled a sensible space by self-activity. For space must first be an object of experience; otherwise no position can be assigned to [bodies]. The all-penetrating caloric is the first condition of the possibility of all outer experience. Empty space does not *exist*.<sup>46</sup>

Kant states that bodies cannot be dispersed in space, and that we cannot experience bodies as spatial and positional, unless the self-activity of ether fills that space. It actually exists prior to experience and can be known to exist *a priori*, for its existence is a condition of the possibility of experience. Kant has used a transcendental argument to prove the existence of something material: not the existence of some material *in general*, but the existence of a self-active, self-subsistent, all-pervasive and dynamical material.

At first glance, it appears that Kant has merely specified what he had already shown in the first *Critique*: namely, that the existence of *some material* is a transcendental condition for the possibility of experience. The fact that the

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<sup>44</sup> *CPR* A272 / B328. For an argument that Kant replaces the problem of individuation with a problem of diversity, see Eric M. Rubenstein, “Rethinking Kant on Individuation”. *Kantian Review* 5 (2001), 73-89.

<sup>45</sup> *OP Ak.* 21:221, p. 71. Kant says only that the ether is *space* thought hypostatically. But it must also indicate the material fullness of time, for it is permanent and constantly active; see his one brief remark about this at *OP Ak* 21:220, p. 70.

<sup>46</sup> *OP Ak.* 21:550-1, p. 81.

material existence required for experience is characterized as ether does, however, mean that Kant's doctrines of apperception and affection are altered.<sup>47</sup> Ether is the unified basis of the whole of all the moving forces of matter, and as such, it is "the principle of the possibility of the unity of the whole of possible experience".<sup>48</sup> The existence of ether as a single *unified* totality now provides a material supplement to the formal unity provided by transcendental apperception. In the first *Critique*, the manifold lacked unity of its own. Transcendental apperception forged an original synthetic unity, which made possible the *analytic* unity of apperception — the identity of a self-consciousness in possession of one continuous experience. Although material existence was necessary to the analytic unity of apperception, material existence had no independent *unity* that could influence self-consciousness. Here in the *Opus Postumum*, however, Kant argues that the existence of ether — a single, unified, material totality — is a condition of the synthetic unity of apperception doing its job. It is now explicit, therefore, that the synthetic unity of apperception *and* the material unity of the manifold are requisite for the analytic unity of apperception. The dynamical continuum of ether provides the material unity of the whole of possible experience; this unity of all possible experience is the condition of possibility of transcendental apperception (both synthetic and analytic) providing the formal unity of individual experiences.

This results in the position that the systematicity of all experience is the condition of possibility of our experiences. It also results in Kant's claim that the material unity is the *single* object of perception, the one and only material thought to affect the senses. We must look at a few passages together to make sense of Kant's position:

Just as there is only one space and only one time (as objects of pure intuition), there is likewise only one object of possible outer experience in the field of the causality of perception of outer things. For all so-called experiences are always only parts of one experience, in virtue of the universally distributed, unbounded

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<sup>47</sup> See Tuschling 208.

<sup>48</sup> *OP Ak.* 21:224, p. 73.

caloric which connects all celestial bodies in one system and sets them into a community of reciprocity.<sup>49</sup>

[The proof for the existence of ether] concerns an **individual** object, which carries with it real (not logical) universality. There is to be found here a *collective unity* of the objects of a *single* experience [...]; the object of this concept contains the One and All of outer sense-objects.<sup>50</sup>

[T]he concept of the whole of outer experience presupposes [...] a constant *motion* of all matter, by which the *subject*, as an object of sense, is affected. For without this motion, that is, without the stimulation of the sense organs, which is its effect, no perception of any object of the senses, and hence no experience, takes place.<sup>51</sup>

The goal of [the concept of caloric] is to have a *material principle* of the unity of possible experience; one which combines all experiences into a single experience. Without this combination (and its form) there would be no coherent whole of experience; it would, in that case, only be an *aggregate* of perceptions, not experience as a system.

Thus caloric exists [...]. That is, we can only achieve the subjective unity of experience through the moving forces of matter in us, which produce sensible representations of their objects. It is not possible except by the existence of the moving forces, which

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<sup>49</sup> *OP* Ak. 22:554n, p. 89.

<sup>50</sup> *OP* Ak. 21:586, p. 93. In calling the ether the One and All of outer sense-objects — a phrase adopted by German neo-Spinozists in the late eighteenth-century — Kant aligns ether with Spinoza's substance, the unity and totality of all being; see *OP* p. 269, Förster's note 58. Kant refers increasingly to Spinoza in the later sections of the *OP*, particularly in his late reflections on God. See, e.g., *OP* Ak. 22:54-6, pp. 213-4; Ak. 21:12-15, pp. 220-2; Ak. 21:99, p. 255. On Kant's late Spinozism, see Edwards, "Spinozism, Freedom, and Transcendental Dynamics in Kant's Final System of Transcendental Idealism", in Sedgwick (ed.), 54-77. For an argument that with these remarks Kant expresses not his admiration but his disdain for Spinoza, see Guyer, "The Unity of Nature and Freedom: Kant's Conception of the System of Philosophy", 19-53 in the same volume.

<sup>51</sup> *OP* Ak. 22:550-1, p. 87.

activate the material for their combination in a single possible experience.<sup>52</sup>

In these passages we can see an altered doctrine of experience in which a material unity is thought to affect the senses and to supplement the synthetic unity of apperception. First, all our experiences are part of *one* experience, and this is due to the ether, as the collective unity of objects of possible experience. The ether provides a material principle for the unity of possible experience, without which we would have only an aggregate of perceptions without systematic coherence. The ether makes it possible that experience is a connected and unified *system*. Secondly, the material unity of possible experience is a condition for the possibility of the *subjective* unity of experience; that is, the attribution of perceptions to one self-consciousness. Kant says that we can only achieve subjective unity of experience if a material unity of forces exists as the single object of experience; when this single object is perceived, it “activates” the combination of forces *toward* a single experience. Thirdly, then, the material unity of forces is the single object responsible for affecting the senses and “producing sensible representations”. The material unity of the manifold makes a single, unified experience materially possible, as the synthetic unity of apperception makes it formally possible. The synthetic unity of apperception is supplemented by material unity in being the ground of possible experience.

Two major problems emerge from Kant’s ether proofs. The first is that Kant appears to employ an ontological proof for the existence of ether.<sup>53</sup> The second is that it is unclear exactly what the status of ether is. If Kant claims that the material existing prior to experience and affecting the senses can be determined to be a collective unity of interacting material forces, has he not committed the fallacy of determining transcendently something that exists prior to and independent of experience? Or has he mistakenly attributed actual existence to something that can only be thought as an idea of reason? In other words, is the ether an absolute, transcendent reality — in which case its determination in terms of categories is

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<sup>52</sup> *OP Ak.* 21:585-6, pp. 92-3, emphasis added on “a material principle”.

invalid — or is it a transcendental ideal, in which case its actuality is problematic?<sup>54</sup> Both of these problems can be addressed by looking at how the ether follows “analytically” from the concept of the unity of experience.

Let us look first at the claim that Kant employs an ontological proof. Kant claims that the existence of ether follows analytically from the concept of experience as a unity, and thus it is the *concept* of the unity of experience that is said to prove the actuality of ether. For if we analyze this concept we find that it includes the concept of a continuous whole of the perceivable, and thus the concept of an *existent* continuous whole. It is for this reason that Kant insists that he has proved the actuality of ether analytically, according to the principle of identity:

Hence there exists as an object of experience in space (although without empirical consciousness of its principle) a particular material which is continuously and boundlessly distributed and constantly self-agitating. That is, caloric is *actual*; it is not a material feigned for the sake of the explanation of certain phenomena, but rather, a material demonstrable from a universal principle of experience (not from experience) according to the principle of *identity* (analytically) and which is given *a priori* in the concepts themselves.<sup>55</sup>

It may seem that Kant has used something suspiciously similar to an ontological argument here; an argument from existence in concept to existence in actuality. This would be surprising given his efforts against them in both *The One Possible Basis for a Demonstration of the Existence of God* and the first *Critique*; furthermore, as if to preclude an ontological argument, Kant explicitly restates the principle that existence is not a real predicate at Ak. 22:549 (p. 86). This restating

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<sup>53</sup> Vittorio Mathieu argues that Kant’s ether proof is a new ontological proof in “Äther und Organismus in Kants ‘Opus postumum’”, in H. Heimsoeth et al (eds.), *Studien zu Kants philosophischer Entwicklung* (Heidelberg: Georg Olms, 1967).

<sup>54</sup> Edwards argues that Kant conceives ether as transcendently real (*Substance, Force, and the Possibility of Knowledge*, 173-4), while Förster argues that ether is understood as a transcendental ideal in the critical sense (*Kant’s Final Synthesis*, 91-3).

<sup>55</sup> *OP* Ak. 22:551, p. 87.



is not accidental, and there is good historical reason to believe that Kant was thinking about *The One Possible Basis* as he wrote these pages.<sup>56</sup> If we look more closely, we see that with both this argument and the first, Kant is revisiting his argument from *The One Possible Basis*: Kant argues that the existence of ether is demonstrable from the requirement *that there be some existence*. In chapter one we saw that in *The One Possible Basis* “some existence” was required in order that anything be possible; that existence was then characterized in divine terms. Here in the *Opus Postumum*, following the Refutation of Idealism and Anticipations of Perception, “some existence” is a requirement for the possibility of *experience*: if outer experience is to be possible, there must be some existence outside me, and that existence must be a continuum without empty spaces. Thus, if experience is possible, then ether actually exists. This is demonstrated just as a much younger Kant initiated a demonstration for the existence of God — from the original necessity of *existence*, not from the concept of the thing in question.

We can also see how Kant can deduce the attributes of ether analytically from its concept. In *The One Possible Basis*, the non-existential attributes of “some existence” could be deduced from the concept of “some existence”, for this existence was thought to be what grounded possibility in general. The ground of all possibility had, analytically, to be omnipotent, infinite, eternal, etc. In the *Opus Postumum*, “some existence” is the ground of all possible experience and the ground of the *unity* of all possible experience, so the concept of “some existence” must include the attribute of universal distribution without empty spaces, and must include constant motion (for without these attributes, experience would not be possible). The attributes of that which exists prior to experience and affects the senses, then, are not determined through synthetic *a priori* principles, but are deduced analytically from the concept of existence in general:

The attributes of this [material] (since it is all-embracing, individual, and the basis of all [forces] for the unity of the object of the one experience) are given according to the principle of identity:

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<sup>56</sup> Förster explains (*Kant's Final Synthesis*, 94-7), that Kant was thinking about his *One Possible Basis* essay in 1799, as he was preparing a preface for a new edition of his shorter works, including that one.

namely, that it is universally distributed, all-penetrating, and all-moving. [...] And, as such, it is necessary, that is, permanent. For *sempiternitas est necessitas phaenomenon* [permanence is necessity in appearance].<sup>57</sup>

The concepts of permanence, universal distribution, and constant motion are not attributed *synthetically* to the ether as they would be to an object of experience; rather, they are deduced *analytically* from the concept of the possibility of experience. The existence of “some existence” has also been shown to follow necessarily from the concept of the possibility of experience. The actuality and attributes of the ether are logically unfolded from the very possibility of experience. So the ether is not posited to be a transcendent reality or noumenal cause existing *independently* of experience; the ether is the *very material* of experience that is not directly experienced, but that makes all experience possible. Nor is the ether thought as a transcendental *idea* of a noumenal cause, the existence of which could never be assumed. We are justified in asserting the existence of ether *prior* to experience, as permanent, universally distributed, all-penetrating and all-moving, as the *very material* of experience. We are thus justified in presupposing that this material is responsible for affecting the senses as the single object of perception. The existence of ether is an *a priori* transcendental material condition of possible experience.

To summarize: in the ether proofs, Kant argues for the existence of a dynamical continuum, which is characterized in the following ways:

1. as a self-subsistent, self-active productivity from which all inorganic bodies arise and derive their motion;
2. as the totality of all the moving forces of matter which fills space completely;
3. as the one and only object of possible experience, which is not itself directly experienced but is thought to affect the senses;
4. as the material unity of the manifold, which supplements the synthetic unity of apperception in making experience possible in general;

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<sup>57</sup> *OP Ak.* 21:585, p. 92.

5. as the totality of all possible experience, that makes experience possible as a coherent, systematic whole.

One way to bring these characteristics together would be to define ether as the productive system of forces that makes “nature in general”, and thus also experience, possible from the material side. If, as Kant claims, we are also justified in believing this productive system to be responsible for affection, we now need an explanation as to how the senses are affected. Kant’s ether proofs suggest an underlying relation between ether and the *receptivity* of the subject. How is this original relation between the dynamical continuum and the senses understood?

#### 5.4 Experience reformulated

It seems clear that with the concept of ether, Kant has determined the character of the material of experience. He cannot, of course, determine what the character of the ether would be independently of experience, but he has shown what it is *for* experience. The ether exists as an all-pervasive dynamical continuum which must exist for experience to be possible. The ether provides the material condition and objective unity of appearances. As the totality of all objects of possible experience, it is also what makes possible the unity of experience. How, then, is experience understood to function, under the new condition that an objective unity of existence is given?

First, we should reiterate that although the ether is the one unified object of possible experience, the ether is not experienced as such. Rather, Kant introduces a duality between the primary “indirect” appearance of the moving forces that make up the ether, and the secondary “direct” appearance of experienced matter.<sup>58</sup> We experience direct appearances only because the totality of indirect appearance exists as a material unity. The indirect appearance of ether is all-pervasive and internal to every thing; indirect appearance appears *as* direct appearance to the subject. The indirect appearance of ether, as I have already said, is not noumenal

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<sup>58</sup> *OP Ak.* 22:340, p. 110. See Edwards, *Substance, Force, and the Possibility of Knowledge*, 170.

or transcendently real. It is appearance, but as the *totality* of all appearance only its particular instantiations are experienced. For these particular instantiations to appear, the ether must affect the senses, and the subject must contribute its transcendental principles. This suggests that ether as indirect appearance is processed so that objects of experience, direct appearances, emerge for experience. Recalling Buchdahl's "realization" interpretation of Kant, in which objects of experience are refined from being generic "transcendental objects" through sense data and application of the categories, it is as if the indirect appearance is *realized* as direct appearances or objects of experience.

This suggests that the ether, as the material unity of the manifold, is now part of the concept of the transcendental object. In the first *Critique*, the concept of the transcendental object was produced as the formal objective unity of the manifold, based on the unity of consciousness. Here, that formal objective unity is supplemented by a material objective unity, so the concept of the transcendental object can be thought to be both the formal and the material objective unity of the manifold. The *objectivity* of things is now thought to be constituted not only by transcendental apperception in its synthetic relation to them, but also by the material unity of the ether. Objectivity in general must then be "coloured in" (just as it was in the *Critique*) through the subject's formal apparatus of concepts and principles. "Direct" appearances emerge as the result of "colouring in" what Kant calls "existence in general".<sup>59</sup>

In chapter three I argued that the synthetic-apperceptive relation in which the objectivity of things is established is the relation of being. This relation was initiated by productive spontaneity, synthesizing the received manifold and producing unity in it. Now, with the additional factor of the material unity of the manifold, and with the additional characterization of that unity as self-active, the relation of being is not initiated only by the spontaneity of the subject; it must be initiated, in part, by the spontaneity of the ether with its self-active moving forces. Being is still the subject-object relation, but this relation is now brought about equally from both sides. This is suggested by the passage quoted above, in which Kant says that the moving forces of matter "produce sensible representations of

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<sup>59</sup> *OP Ak.* 21:217, p. 68; see also *Ak.* 21:228, p. 75, where Kant says that the existence of ether is considered "apart from all properties except that of being an object of possible experience".

their objects” and “activate the material for their combination in a single possible experience”.<sup>60</sup> The complex of moving forces *actively* affects the senses, causing us to have representations, and causing us to refer these representations to the identity of self-consciousness; the forces could be said to “force” spontaneity into the relation of being. A *matter*-initiated relation of being was not available to us in the first *Critique*, because we were not at that point entitled to presuppose the existence of a self-active material unity.

Kant argues, however, that the self-activity of the ether alone is not sufficient for our experience and knowledge of the moving forces, for as Förster says, “specific forces of nature cannot be cognized as it were passively, through staring at them, [...] but only through interacting with them”.<sup>61</sup> Even in its receptivity, the subject must exercise self-activity in order to make the ether manifest as something suitable for affecting its senses. The subject must *comport* itself towards being affected by the ether. Receptivity cannot be merely passive, but must also be active. This is suggested in the tenth and eleventh fascicles (headed in the English translation “How is physics possible? How is the transition to physics possible?”), probably written in 1799-1800. Kant claims that the subject, through its own active forces, makes the dynamical continuum of ether manifest to itself and anticipates perception through a representation of the continuum. Primary matter is there, extant; but only through the subject’s comportment to it is it made available as that which makes experience materially possible.

This comportment occurs through the subject’s own participation in the dynamical continuum, exercising its own moving forces. Kant suggests that the moving forces of the subject are not different from those of inorganic matter: “the moving forces of matter are what the moving subject itself does with its body to [other] bodies”.<sup>62</sup> Through our own dynamic impact on other bodies we are conscious, *a priori*, of the moving forces of matter, the system of which we anticipate for the sake of perception:

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<sup>60</sup> *OP Ak.* 21:586, p. 93.

<sup>61</sup> Förster, *Kant’s Final Synthesis*, 100.

<sup>62</sup> *OP Ak.* 22:326, p. 110.

Only because the subject [is conscious] to itself of its moving forces (of agitating them) and — because in the relationship of this motion, everything is reciprocal — [is conscious] of perceiving a reaction of equal strength (a relation which is known *a priori*, independently of experience) are the counteracting moving forces of matter anticipated and its properties established.<sup>63</sup>

The subject is conscious of its own moving forces and is thereby conscious of its own interaction with other moving forces. Through this interactive relation, which is known *a priori*, the subject acquires an *a priori* representation of an object outside it. This representation is of the one and only object of possible experience, the material unity of the complex of moving forces. With this representation of the single object that materially *causes* perception, the subject *anticipates* perception. Kant claims that we acquire this representation in the following way: the subject has an effect on the outer sense-object, and this effect — the self-activity of the subject towards ether — “represents this object in appearance, and does so, indeed, with the moving forces directed toward the subject (which are the cause of perception)”.<sup>64</sup> In other words, the subject’s self-activity towards the ether is a precondition for the subject’s representation of the moving forces’ effect on the senses; the subject comports itself towards the ether by affecting it, and then represents an object that affects the senses through moving forces. For this reason, Kant says that the subject is not passively affected but rather “affects itself” with its own representation.<sup>65</sup>

Indeed, it is this representation of the ether, made possible by our own self-activity, that is the first principle of a transition to physics. For it is this *a priori* representation of the totality of moving forces that gives us an elementary system of physics, the “sketch of a system” that Kant set out to determine with his Transition project. This sketch of a system allows us to enumerate and diversify the forces, and thus have experiences that are of individual bodies with different

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<sup>63</sup> *OP Ak.* 22:506, p. 148.

<sup>64</sup> *OP Ak.* 22:505, p. 148.

<sup>65</sup> *OP Ak.* 22:405, p. 121.

dynamical properties.<sup>66</sup> Since the totality of the moving forces is equivalent to the totality of possible experience, Kant is claiming that we have an *a priori* representation of the totality of possible experience, and that this representation anticipates all our individual experiences. We must “insert” this *a priori* representation of the whole of moving forces (i.e. the whole of possible experience) into phenomena in order to “extract” those same forces from experience (i.e. in order to have individual experiences of direct appearances). For this reason Kant characterizes our experience of individual bodies as a “cognitive product”:<sup>67</sup>

It is not in the fact that the subject is affected empirically by the object (*per receptivitatem*), but that it affects itself (*per spontaneitatem*), that the possibility of the transition from the metaphysical foundations of natural science to physics consists. Physics must make its object itself, according to a principle of the possibility of experience as a system of perceptions.[...] For experience cannot be given but must be made; and it is the principle of the unity of experience in the subject which makes it possible that even empirical data (as materials by which the subject affects itself) enter into a system of experience and, as moving forces, can be enumerated and classified in a natural system.<sup>68</sup>

The transition to physics consists in the self-activity of the subject, whereby it affects itself with the representation of a system of moving forces (system of possible experience). Physics itself, as the system of empirical findings “extracted” from experience, “makes its object” according to this representation of a system. Because it includes this *a priori* representation, physics is “not an empirical science”, but it can be “a complex of empirical cognitions which are combined into one experience”.<sup>69</sup> Physics is not given to us by the world, but is

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<sup>66</sup> *OP Ak.* 22:504, p. 148; see Förster, *Kant's Final Synthesis*, 98.

<sup>67</sup> *OP Ak.* 22:340-1, pp. 110-1.

<sup>68</sup> *OP Ak.* 22:405-6, pp. 121-2.

<sup>69</sup> *OP Ak.* 22:407, p. 123.

produced through the embodied subject acting in the world and affecting itself with the representation of a world system.<sup>70</sup>

Kant's claim that we have an *a priori* representation of the systematicity of the world is quite new, and should not be conflated with his earlier claims about systematicity in the first and third *Critiques*.<sup>71</sup> The *Critique of Pure Reason* argued for a cosmological system as an idea of reason, applied to order the experiences of understanding. The systematicity of nature in the *Critique of Judgment* was similarly a system of empirical events; the task of reflective judgment was to presuppose that nature, in the subsumption of particular empirical laws under more general ones, had adhered to a system that the human understanding could grasp. This amounted to the presupposition that nature, as totality of objects of experience, was suitable for cognition. In the *Opus Postumum*, however, Kant claims that we *represent* a system of non-experienceable moving forces prior to experience, on the basis of our original representation of the totality of existence. The distinction between the empirical systematicity aimed at in the third *Critique* and the *a priori* systematicity of the Transition project is emphasized by Kant's repeated insistence that this system is not a system *from* experience, but a system *for* experience.<sup>72</sup> The system is then inserted into experience, making individual experiences and empirical laws possible. This does not make reflective judgment redundant, for a "microscopic" system of the moving forces does not give us a "macroscopic" system of empirical laws — although it does contain the elements that the macroscopic system must extract and classify, thus making the macroscopic system possible.

In order to make possible an empirical system of nature, the subject's *a priori* representation of a world system must include the idea of organic bodies. In the analysis of Kant's concept of ether we found that it could not contain a principle sufficient to explain the production of organization, lest it be conflated with a Schellingian "world-soul". Recall that for Kant an organic body is characterized by its organization as both cause and effect of itself, and by its self-production.

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<sup>70</sup> Note that Kant insists that physics is practiced through active experimentation, not through passive observation (*OP* Ak. 22:504, p. 148).

<sup>71</sup> Alexander Rueger ("Brain Water, the Ether, and the Art of Constructing Systems", *Kant-Studien* 86 (1995), 26-40), does conflate the systematicity of the *OP* with that of the *CJ*, but I believe the similarity of these ideas is only superficial.



This definition of organic bodies is maintained in the *Opus Postumum*, with renewed emphasis on the “fiction” of such an idea.<sup>72</sup> If organic bodies are to be included within the totality of objects of possible experience (which is equivalent to the totality of moving forces) they cannot include the immaterial principle of the causality of a will. How are we to include such bodies in the *a priori* classification of bodies in general that comes about with the initial representation of the dynamical continuum?

Kant’s answer is similar to that of the third *Critique*: it is through a projection of our own self-activity onto nature. However, in the *Opus Postumum*, self-activity is the subject’s original self-motivated interaction with other moving forces. The human subject is conscious of himself as including this *self*-moving force that interacts with other forces. In his original representation of the dynamical continuum, the subject cannot detect the *self*-movement of the object of moving forces outside himself, but is entitled to include self-moving force in the *a priori* system of forces by analogy with moving force generally.

How can we include such [organic] bodies with such moving forces in the general classification, according to *a priori* principles? Because man is conscious of himself as a self-moving machine, without being able to further understand such a possibility, he can, and is entitled to, introduce *a priori* organic-moving forces of bodies into the classification of bodies in general — although only indirectly, according to the analogy with the moving force of a body as a machine. He [must], however, generalize the concept of vital force and of the excitability of matter in his own self by the faculty of desire.

By the same principle, the emergence of the organism of matter and its organization as a system for the needs of different *species*, becomes possible, [stretching] from the vegetable kingdom to the

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<sup>72</sup> See, e.g., *OP* Ak. 22:464, p. 131; Ak. 22:610, p. 98.

<sup>73</sup> *OP* Ak. 21:210, p. 64.

animal kingdom (at which point *desires*, as true *vital* forces of corporeal substances, first arise).<sup>74</sup>

Organic moving forces are not equivalent to inorganic ones, since they can be represented as being part of the dynamical continuum only indirectly, by analogy. This does not mean that they are *not* part of that continuum — it is just that human consciousness only has access to its *own* self-moving force. But this access to a force not encountered in the continuum means that the subject is entitled to generalize that other bodies, perhaps even “our all-producing globe itself”, have the same vital force as the human subject.<sup>75</sup> *Vital* or *vivifying force* (*vis vivifica*), and thus organization and self-production, can be introduced into the totality of forces with which we enumerate and classify the objects of physics. The ability of a being to form and move itself is now part of the *a priori* representation of the ether with which we anticipate perception, meaning that Kant is able to attribute life to certain types of bodies *a priori*.

We saw in the *Critique of Judgment* that Kant thinks of *life* as self-activity, the ability of a thing to determine itself to act through concepts. Since such spontaneity could only be attributed to human subjects, organic matter in that text could only be thought to have life by virtue of a regulative principle of reflective judgment. Kant clearly continues to associate life with the faculty of desire in the *Opus Postumum*, as is clear from the passage above, but because life manifests itself in the subject’s *original* interaction with moving forces, Kant is much readier to attribute life to organic beings. He claims that life is the productive force in the unity of an organic body, and indeed in the totality of the world as a whole:

An organic (articulated) body is one in which each part, with its moving force, necessarily relates to the whole (to each part in its composition).

The productive force in this unity is life.

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<sup>74</sup> *OP* Ak. 21:213, p. 66; see also Ak. 22:373, p. 118; Ak. 22:99-100, p. 197.

<sup>75</sup> *OP* Ak. 21:213-4, p. 66.

This vital principle can be applied *a priori*, from consideration of their mutual needs, to plants, to animals, to their relation to one another taken as a whole, and finally, to the totality of our world.<sup>76</sup>

Life can be extracted from experience because vital force is included in the system of moving forces that anticipates experience.<sup>77</sup> Indeed, our own vital force, our own self-activity, is what makes possible that representation of the totality of the world that anticipates perception. We primarily and originally apply the principle of our own self-activity to the totality of the world of possible experience. Our comportment towards the world, even in our receptivity, is *originally* one of life or production.

### 5.5 Productive ontology

The activity and productivity of the subject extend to the senses, which must be self-active in their receptivity. Our comportment towards the world is thus a *productive* one. That is, the subject comports itself towards the ether with a view to producing from it objects of experience, and specifically objects that form part of the joint systems of physics and possible experience. The subject's productive comportment is its self-activity towards the ether, the reaching-out of life towards interaction with other moving forces. This interaction precedes and anticipates the subject's cognition of individual objects. It is thus a pre-cognitive relation to the extantness of the world. In chapter one I looked at Heidegger's interpretation of Kant, which claimed that a pre-cognitive relation between an intentional subject and the extantness of the world first establishes the field of what is intuitable. Finally we see how this plays out: in the *Opus Postumum*, the subject comports itself to the extantness of the ether, enters into reciprocal relation with it, and establishes it as the one and only object of perception, thus setting the conditions

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<sup>76</sup> *OP Ak.* 21:211, p. 64.

<sup>77</sup> On this point see Guyer, "Organisms and the Unity of Science", 274-80.

for perceiving individual bodies. It is worth quoting at length Heidegger's description of the move he understands to ground perception in the first *Critique*.<sup>78</sup>

The perceptual uncovering of the extant must already understand beforehand something like extantness. In the *intentio* of the perceiving something like an *understanding of extantness* must already be antecedently present. [...] The extant in its extantness belongs to the directional sense — that is to say, the *intentio* is directed toward uncovering the extant in its extantness. The *intentio* itself includes an understanding of extantness, even if it is only pre-conceptual. In this understanding, what extantness means is unveiled, laid open, or, as we say, disclosed. [...] This understanding of extantness is present beforehand as pre-conceptual in the *intentio* of perceptual uncovering as such. This “beforehand” does not mean that in order to perceive, to uncover something extant, I would first expressly have to make clear to myself the sense of extantness. [...] This understanding of extantness, of actuality in the Kantian sense, is prior in such a way — it belongs in such a way to the nature of perceptual comportment — that I do not at all first have to perform it expressly; rather, [...] it is implicit in the basic constitution of Dasein itself that, in existing, the Dasein also already understands the mode of being of the extant, to which it comports existingly, regardless of how far this extant entity is uncovered and whether it is or is not adequately and suitably uncovered. [...] This is the condition of the possibility of the uncoverability of extant things. Uncoverability, the perceptibility of extant things, presupposes disclosedness of extantness.<sup>79</sup>

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<sup>78</sup> Recall that “*intentio*” refers to the intentionality of the Dasein; “extantness” refers to the existence of the given prior to its formalization by Kant’s category of existence; and “uncovering” and “disclosure” refer to the distinct ways in which beings and being are made manifest.

<sup>79</sup> *BPP* 70-1.

Heidegger argues that for Kant, the perception or “uncoverability” of existing things presupposes the existing subject’s initial intentional relation to the extant, in which the extant is “disclosed” as the ground of the things. Heidegger formulates this distinction between perceivable things and their ground of extantness as that of the ontological difference between beings and being, and adds: “it is manifestly this understanding of being to which Kant recurs without seeing it clearly”.<sup>80</sup> In the context of the *Opus Postumum*, this suggests that *being* is that original continuum of existence — ether — that is disclosed through the subject’s comportment towards it, and that this relation of disclosure is the ground of the possibility of beings and their “uncovering”. Is being, for Kant, merely a continuum of presence? If so, we would be led to adopt Heidegger’s conclusion that Kant does not get beyond an ontology of presence.

My claim is that Kant’s final ontology is not so straightforward, and that it would be wrong to align being simply with the extantness of the ether. It is not the extantness of the ether but rather the active *relation*, or interaction, between the distinct elements of self-active life and self-active ether that is the ground of beings and of the perception of beings. In the preceding chapters I have suggested that “being” for Kant is the original relation of spontaneity to existence, from which relation both subjectivity and objectivity emerge as products. For the critical Kant, this relation could be none other than that initiated with transcendental apperception, where spontaneity actively synthesized the manifold of nature. It was recognized in chapter three that a primary intuitive relation, a relation of nature as *given* to sensibility, must underlie the relation of being. Kant could not determine the character of the given, and was obliged to use the idea of a transcendental object (supersensible substrate) to explain how this intuitive relation was possible. This relation, the ground of the possibility of any further subject-object relationality and thus the ground of affection, was relegated to the realm of the supersensible.

In the *Opus Postumum*, Kant determines the original subject-object relation that is “deeper” than that of transcendental apperception. Kant has shown that we can think of the original materiality of the world as a self-subsistent, self-active

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<sup>80</sup> *BPP* 72.

dynamical continuum, and he has explained how that continuum must affect sensibility for experience to be possible. The self-activity of nature affects sensibility only insofar as the self-activity of the subject affects nature. That is, affection is not characterized only by the passivity of the senses drinking in a world of moving force; it is also characterized by the self-activity or *life* of the subject interacting with a self-active field of moving forces. The subject's consciousness that it is an active part of the dynamical continuum — the feeling of its own life — brings it into a *reciprocally* affective relation to the dynamical continuum. But this relation is not only the material interaction of forces, for the self-activity or life of the subject is grounded in the faculty of desire. The subject acts, and interacts, according to concepts, and thus brings a formal element to its relation to the dynamical continuum. The relation is determined by the subject's *formal* comportment, its intention to bring about objects of experience. The original relation between self-active life and self-active force is thus a relation between formality and materiality. This relation, which is the first condition of all experience and knowledge, is the relation of being. It can be characterized as the original relation between subject and object, between life and force, between formality and materiality, or between freedom and nature.

This original relation is a productive relation. For as we have seen, Kant defines life in the *Opus Postumum* as “productive force”, and explicitly characterizes the dynamical continuum as producing objects of secondary matter through its ongoing oscillation. Life and force are both characterized as existentially productive, and the relation between them is characterized as epistemically productive. Once the original condition for the possibility of experience is established with the life of the subject affecting itself with the forces of the ether, its task is to produce objects of experience by determining the manifold formally through the categories. “In this fashion, empirical representations, which are perceptions belonging to physics, are *produced*, as *object*, by the *subject* itself”.<sup>81</sup> The subject has a comportment toward things not *as produced*, but with a view to their production. Insofar as the subject has life and self-activity towards the world, the subject has a productive comportment towards

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<sup>81</sup> *OP Ak.* 22:465, p. 131.

it. Heidegger's reductive reading of the being of things as their producedness does not capture the character of being as productive relation; nor does it adequately assess the comportment of the subject towards actively producing experience.

Ontology, as I have argued, is located in the realm of possible experience, involving both epistemic and existential elements, in their interrelation. Here, possible experience is grounded by the relation of life and force, and ontology is located in the realm of this relation. I have claimed that this is also the realm of existential and epistemic productivity. Ontology, then, is located in the realm of production, and being, which is the dynamically interacting relation of form and matter, is production. Being is not the ground of *original* production, however, for it does not produce spontaneity; spontaneity as self-active life, and thus the relation of being itself, are made possible by the subject's freedom. This suggests that freedom is outside of being, as the idea of a supersensible substrate still employed to explain the possibility of our relation to the world. It also suggests that the productivity of freedom — moral productivity, as I described it in the introduction — is thought to constitute spontaneity and to be the ultimate ground of the subject's epistemic productivity. The subject has a productive comportment, approaching the world with a view to the production of objects of experience, because it is fundamentally constituted by free productivity, the capacity to originate things or events.

Free moral productivity, however, falls outside of the bounds of this thesis, because it falls outside the bounds of ontology. The thinking self, practical freedom, and God are, for Kant, *other* than being. Because they are outside the bounds of possible experience, they are outside the bounds of ontology. Kant has much to say on these topics in the later sections of the *Opus Postumum*, those written very close to the end of Kant's life, but these are topics for another investigation. There is just one point I will make in conclusion. The distinction between possible experience and the transcendent is the distinction between being and what is other than being, but even this distinction, for Kant, must be unified. Kant claims that it is "man in the world" that functions as the point of relation between God and the world. Man is both, as life, part of dynamical interaction, and, as a free person with rights and duties, part of the supersensible — man is both being and other than being. Kant thus says, under the title "System of

Transcendental Philosophy in Three Sections”, that man is the copula between the supersensible and the sensible:

*God, the world, universum, and I myself, man, as moral being.*

God, the world, and the inhabitant of the world: man in the world.

God, the world, and that which thinks both in real relation to each other: the subject as rational world-being.

The *medius terminus* (copula) in judgment is here the judging subject (the thinking world-being, man in the world). Subject, predicate, copula.<sup>82</sup>

If Kant’s final understanding of transcendental philosophy comprises three sections — God, the world, and man who *relates* them — then transcendental philosophy is about the relation of being to what is other than being, and human beings are this very relation. Appropriately, one of Kant’s very last reflections, written on the wrapper of the sheaf of papers that is now the *Opus Postumum*, reads:

Transcendental philosophy precedes the assertion of things that are thought, as their archetype, [the place] in which they must be set.<sup>83</sup>

The relation of being to what is other than being, and perhaps the distinction between what is ontological and what is not, is the context or horizon for our thought; our judgments and assertions presuppose a specific understanding of being, and of our participation in it.

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<sup>82</sup> *OP Ak.* 21:27, p. 231.

<sup>83</sup> *OP Ak.* 21:7, p. 256.



## Chapter 5 Summary

In this chapter I have looked at Kant's *Opus Postumum* to determine his final productive ontology. Two problems of production emerged from my analyses of the first and third *Critiques* and the *Metaphysical Foundations*: the problem of the material production of diverse individual bodies, and the problem of the original production thought to underlie spontaneity and nature and to make their relation possible. I claimed that with the notion of ether, Kant attempts to solve both these problems, and that in his formulation of proofs for the existence of ether, Kant's transcendental idealism and theory of being are modified.

The diversity of individual bodies was explained to be produced by the oscillation of the ether, an all-pervasive totality of moving forces. In his ether proofs, Kant attempts to prove the existence of this totality, implying that a dynamical continuum of existence is the one material condition for the possibility of experience. I claimed that Kant's understanding of experience changes to accommodate the existence of the ether: since the ether provides material unity in the manifold, the role of transcendental apperception is altered, relying both on synthetic unity and on material unity. We are entitled to think of this material unity, the totality of moving forces, as the single object that affects the senses, and Kant argues further that the self-activity of the subject is necessary for affection. Through its active participation in the totality of moving forces, the subject is characterized as affecting itself through an original, *a priori* representation of the totality of moving forces, which makes experience possible. This original participation, in which the subject represents the totality with a view to producing objects of experience, is a productive comportment, and the original relation between life and force — dynamical interaction in general — is the relation of being. In Kant's final productive ontology, being is the dynamical interaction that produces existence, experience, and knowledge.

## Conclusion

In this thesis I have examined Kant's ontology and concept of being in terms of a concept of production, by contrast with the silence of other commentators on these topics. Why should we consider Kant's ontology to be a productive ontology? My argument can be summarized as follows.

1. In chapter one I explained that ontology for Kant is the study of concepts and principles, insofar as they apply to possible experience. Ontology, therefore, concerns the relation of epistemic conditions to existence, the relation of form to matter, or the relation of subject to object. Being, for Kant, is defined as the *positing* of a thing, and therefore as the relation of the thing to the subject's capacity to judge. Being is the relation of subject to object, and is therefore the concern of ontology.

2. In chapter two we saw that the "object" side of the relation of being is nature or matter, which can only be determined as such through its relatedness to the subject. Through the relation of being, the materiality of the world is formalized and determined to be a nature reducible to interacting fundamental forces. Existence is thought as this interaction — as dynamical productivity — and indeed must be intuited as action, for it is only through the outer intuition of the action of impenetrability that we infer the material permanence that makes inner intuition possible. Our intuition of nature as *productivity* is a necessary component of possible experience (although it cannot be determined as productivity outside of experience).

3. In chapter three we saw that the "subject" side of the relation of being is the spontaneity of understanding, which is productive in the synthetic unity of apperception. Apperception, in first synthesizing and unifying the manifold, initiates the relation of being and produces the objectivity of the object. In so doing, the subjectivity of the subject — the analytic unity of apperception — is also produced. In and through the relation of being, apperception produces

possible experience. The relation of being, then, is a relation between productive spontaneity and the world as it is received by the senses; a relation which produces the world as object of possible experience, and ultimately produces it as a productive nature. The relation of being is productive, and ontology, which is concerned with the realm of this relation, is concerned with the realm of epistemic production.

If we characterize Kant's ontology as a productive ontology, then his epistemology must also be acknowledged to be based on epistemic production. Knowledge acquisition takes place through the interaction of formal and material conditions. It is at the site of this interaction that being is located, and it is at the point of partaking in this interaction that the being of things can be asserted. Things have *being* only if they enter into productive interrelation with the subject. This does not mean that independently of their relation to a subject, things do not *exist*; it means that independently of this relation they do not have *being* or subject-relatedness. Being is fundamentally subject-related.

The being of the subject, however, also depends upon the subject's productive interrelation with things outside it. Again this does not mean that a world-independent mind could not *exist*, but it could not have *being*. Being is fundamentally human-relatedness *to* something. This position is similar to Heidegger's claim that being is always being-in-the-world.<sup>1</sup> If being-in-the-world is part of the constitution of the subject, then the Kantian subject fundamentally includes the capacity to initiate the relation of being. In chapter five, we saw that Kant characterizes the "life" of the subject in just this way. Life is the subject's capacity to act freely, to bring itself into relation to the dynamical continuum, and thus to initiate the relation of being. This inner capacity characterizes the comportment of the subject towards the world. The subject's comportment is a productive one, approaching the world with a view to its production as object of experience, but it might also be characterized as an ontological comportment, approaching the world with a view to the *being* of both subject and world. This productive, ontological intent constitutes the Kantian subject, as the very *life* of

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<sup>1</sup> *Being and Time*, 49-51.

the subject. Kant's epistemology, therefore, is based not only on ontology, but also on a philosophy of life.

Heidegger is wrong to ascribe to Kant an understanding of being as "produced permanent presence", and to reduce Kant's notion of being to mind-independent materiality. As I have shown, mind-independent materiality can have nothing to do with being, for being is the subject-relatedness of things, and the thing-relatedness of the subject. Similarly, productive comportment cannot mean, as Heidegger suggests it does, that the Kantian subject views things based on the presupposition that they were created by God. Productive comportment is much more original than that, characterizing the *life* of the subject, and forming its ontological and epistemic intentionality towards things. The subject approaches things with a view to their production, and with a view to their being, because the subject is essentially constituted by its capacity for *relating* to things. This position is much closer to Heidegger's own view in *Being and Time* than it is to Heidegger's reductive interpretations of Kant in *Basic Problems of Phenomenology* and *Kant and the Problem of Metaphysics*. Now that Kant's understanding of being has been discussed in its difference from Heidegger's reading of it, the *similarity* between his position and Heidegger's own position would provide rich material for further study.

Another topic for further research is the relation, that I suggested at the end of chapter five, between being and what is other than being. Human freedom, in its moral productivity or capacity to originate events, was suggested to be the ground of the subject's epistemic productivity. The fact that the subject approaches the world with a view to its production as object of experience — and thus the initiation of the relation of being — is grounded in the subject's constitution as freedom. The question of a relation between being and freedom, between ontology and ethics, perhaps between the "is" and the "ought", is thus set up. I would have liked to say more about this relation between Kant's theoretical and practical philosophies, under the condition that theoretical philosophy has been reinterpreted as a productive ontology. The third *Critique*, in its attempt to unify the theoretical and practical domains, would be found to have much to say about the relation of ontology and freedom. There is much material for a further and broader study of Kant's productive ontology.

It would, finally, be useful to situate Kant's productive ontology, particularly in the *Opus Postumum*, in the context of Spinoza's and Schelling's productive ontologies. While Kant publicly distanced himself from Spinoza's thought, there is much in his ontology to suggest that he was sympathetic to some aspects of it. It would be interesting also to ask to what extent Schelling was influenced not only by Kant's transcendental idealism and matter theory in general, but specifically by the concept of production implicit in both. I regret that I have not been able to address these topics in this study, but I have, I hope, prepared the ground on which such further research might build.

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