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This is a postprint. For citation etc., please see the published version "Toward a Modest Correspondence Theory of Truth: Predicates and Properties," *Dialogue: The Canadian Philosophical Review* 47 (2008), 81-102

Toward a Modest Correspondence Theory of Truth: Predicates and Properties

On a correspondence theory of truth, the truth of a belief, sentence, or statement consists in its standing in a special relationship -- correspondence -- to the way things are in the world. For all their intuitive appeal, such theories are frequently charged with being either implausible, resting on a bizarre metaphysics of facts or an overly general conception, or trivial, showing no real need for a real correspondence relation.

But the intuitions of correspondence are hard to give up. As Philip Kitcher has argued, the fact that true theories correspond to reality seems, on the face of it, the best explanation of our continued success in empirical reasoning (Kitcher 2002). To avoid the problem of implausibility, Kitcher proposes what he calls a "modest" theory. The obvious concern is that, depending on how modesty is understood, one risks the charge of triviality.¹

In this paper, I take the first steps toward articulating a modest correspondence theory that avoids the charges both of implausibility and of triviality. I start by arguing for a new way of understanding modesty, and then I give a particular analysis of the relationship between a predicate and the set of things that fall under it. My general approach is naturalistic; grounding the account in ordinary natural science, I show, renders it metaphysically benign. Some critics of correspondence say that the problem with correspondence theories of truth isn't correspondence itself, but rather the

misconception that correspondence has something to do with truth; toward the end of the paper I show why this claim is misguided.

In section one I discuss the relationship between correspondence and its main rival, deflationism, with an eye toward saying what a modest correspondence theory ought to be. In section two I give my account of predicates and their relations to properties and extensions. In section three I draw out the implications of adopting my account for debates over realism and anti-realism; this forms part of my argument for non-triviality. In section four I explain why correspondence at stake is properly understood as part of truth rather than something else.

1. What is Correspondence? What Is it For? The Puzzle of the Perfect Map

Because some of the most difficult problems plaguing correspondence theories concern the role or need for correspondence, I start with a brief history of the relationship between correspondence and deflationism. I argue here that the twin problems of plausibility and triviality have dominated this history, so that finding a proper sense of "modesty" is crucial for a modest correspondence theory. I end with a proposal.

Traditional correspondence theories are framed in terms of facts: a statement is true if and only if it corresponds to the facts. In Russell's early formulation, the correspondence relation is uncomplicated congruence: Othello's belief that Desdemona loves Cassio is true if and only if the same objects -- Desdemona, loving, and Cassio -- appear in the same order in both the belief and the world (Russell 1912). Russell and Wittgenstein both refined this basic idea by introducing the idea of logical structure. On this new, "logical atomism" approach, beliefs or statements are broken down into parts,

and then bits of language or thought -- "elementary propositions" -- correspond to bits of the world -- "atomic facts" or "states-of-affairs" (Russell 1985 and Wittgenstein 1921). Both the simple fact view and the logical atomism view are centered on the idea that certain mental or linguistic items bear some special congruence relation to particular relata in the external world.

Various objections have been raised against correspondence views such as this. First, they seem to require a metaphysics of facts, which itself raises various troubling issues. Where are these facts? What are they? Second, the idea of congruence seems to require a general and deep isomorphism between the way things are organized in thought and language and the way they are organized out in the world. This seems both implausible and impossible to establish in a non-circular way.³ Finally, we may wonder, how can we compare our own beliefs, statements, and thoughts to raw, unconceptualized reality, given that we have no access to the latter? I call this "the comparison problem"; it, or something like it, is frequently cited as the major stumbling block for the correspondence theory.⁴

We might try, as Austin did, to emphasize that the correspondence relation is merely conventional, but then we may wonder: what work is correspondence doing here at all? If it is the fact that it is raining that makes "It is raining" true, then aren't facts just true sentences? As Strawson argued, if this is all facts are, we may as well say that "P" and "P is true" are essentially the same. (Strawson 1950). And indeed, this is roughly the point of view of the main contemporary rival of correspondence: deflationism. Deflationists argue that there is no need for the metaphysics that lead to correspondence problems, and that talk of facts is just talk of truths in disguise. Truth, they say, is

simple: to say that P is true is, roughly, just to say that P.⁵ The reason we need a notion of truth, they explain, is to aid us in endorsing sentences. A truth predicate allows us to endorse what Jane said yesterday, without having to repeat it -- 'What Jane said yesterday is true' -- and to endorse many things at once -- 'All the theorems of Euclidean geometry are true.' For the deflationist, the T-sentences -- "'snow is white" is true if and only if snow is white," and so on -- are part of the definition of the truth predicate, and follow immediately from it. Here the metaphysical implausibility of traditional correspondence leads straight to the triviality problem: if facts are metaphysical we have various puzzles, but if facts are just truths this fails to be correspondence.

But to some, it seems obvious that deflationary accounts fail to explain something crucial, namely, the way that the truth of our theories is related to successful behavior. Truth, on this line of thought, functions in explanations. And as Hartry Field explains in his early work, insofar as truth functions in explanations it stands in need of a conceptual explication. Just as a list of various elements together with their valences would not be a satisfactory account of the concept of "valence," so a list of sentences together with their truth conditions is not a satisfactory account of the concept of truth (Field 1972). Field focuses on a Tarskian recursive definition, giving the truth of a sentence in terms of the denotation of its parts. In analogy with the T-schema, we might think of a "D-schema" for denotation to append to formal recursion: "'Paris' denotes Paris" and so on, "'is beautiful" applies to x just in case x is beautiful, and "is more famous than" applies to x and y just in case x is more famous than y. 's moral is that supplanting a Tarskian account with a D-schema for denotation does not give us a correspondence theory of the kind needed in explanations. Correspondence, he says, requires a general theory of

denotation, such as that provided by the causal theory: "a" denotes a just in case the name a was bestowed on a in an appropriate baptism, under certain conditions, and the term denotes as it does because of a causal chain linking the user to this initial baptism event.

Critics object that the causal theory is flawed and overly general: many of our intuitions about denotation conflict with it, and some entities, such as numbers, are simply acausal. Stephen Leeds raises a further question about the need for a causal theory in explanations: if the way truth figures in explanation requires only deflationary accounts of denotation, he points out, then a deflationary account suffices, even if it is list-like in the way we wouldn't accept in the valence case. In fact, he says, whatever we need to explain can be explained deflationarily, relying only on case-by-case analyses of the connections between particular terms and the particular things they denote. Such case-by-case analyses are entirely consistent with deflationism, because they do not involve theorizing about truth or denotation. For example, a story about how the word 'virus' connects up with viruses is a standard one in the history of science, and telling it requires no particular theorizing about denotation or truth at all (Leeds 1995, pp. 10-11). Such an explanation is consistent with the taking clauses such as "'virus' denotes viruses" part of the D-schema, and thus is consistent with deflationism. Here, again, we see versions of the twin problems of implausibility and triviality: the causal theory is overly general, but without it the truth relation itself is still deflationary -- and thus trivial.

Kitcher gives the most recent attempt at addressing the difficulty, pursuing further the thought that the need for correspondence is in explaining what true theories have in common, that they lead to success again and again. The answer he gives in his paper is

that true theories are something like maps: they correctly represent the world the way it is (Kitcher 2002).⁶ A correspondence theory, Kitcher explains, can avoid the traditional problems, and thus implausibility, by being appropriately "modest"; as Kitcher characterizes this, it means the names, variables, and predicates of sentences range over and refer to real, mind-independent entities and sets thereof, truth is generated recursively via Tarskian recursion, and reference relations are causal relations (Kitcher 2002, p. 347). There are no entities, such as facts, to which true statements correspond, and most importantly here, there need be no single, general, account of reference and denotation (Kitcher 2002, pp. 347-348).

This last avoids the difficulties with the causal theory, raising natural questions about triviality. Modesty, for Kitcher, includes the idea that "there's no commitment to the enterprise of providing a single account of reference or offering a physicalist reduction of semantic notions" (Kitcher 2002, 347-348). That this is still a "correspondence theory," he says, follows from the included claim that there are causal relations between our terms and their referents that determine the denotation relation (Kitcher 2002, p. 347). These causal relations, he suggests, show how the account is non-deflationary, since they go "beyond" the deflationist's ['a' refers to a if a exists]. . . " The rest of his paper argues that a modest correspondence theory such as this one is necessary to explain our successful reasoning.

But it is not clear how a modest theory in this sense is non-deflationary. Analyses such as that offered in the "virus" example show how the word "virus" is connected causally with viruses, and we can give similar stories for other terms. These do not "go beyond" the D-schema, in the sense that they are not intended as a contribution to a

theory of denotation at all. In fact, as Leeds points out, the explanation is a contribution rather to the history of science. The problem is that explanations of isolated cases, considered in isolation, seem to have nothing to do with an explanation of how denotation works in general, and thus nothing to do with an explanation of correspondence, and thus cannot support a correspondence theory of truth. We wonder: what work is correspondence doing here at all?⁷

Kitcher's discussion suggests the following: correspondence matters when it comes to generality, when we ask, what do these cases have in common in virtue of which they function to represent the world the way it is? The question here, then, is how can we make this intuition lead to a clearly non-deflationary theory? How should we understand modesty so that the triviality problem does not arise? Further reflections on maps will help show how this question should be answered, and will, I hope, shed some light on the notorious problem of properly characterizing correspondence. Imagine a map that represents a terrain perfectly, so that, in essence, the map is just a copy of the terrain itself, the same size, with no geometric complexities such as projections. A "deflationary" theory of this map would be hard to distinguish from a "correspondence" theory of it: in each case, we might say, A is in this place with respect to B on the map if and only if A is in this place with respect to B in the world. Case-by-case explanations of how the representation functions at a particular point can be covered without a theory of how the map as a whole corresponds, and the complete list of "trivial" correspondences will still capture what we need to explain that the map is a perfect map. If truth and denotation were perfect like this, correspondence and deflationary theories, though different in intent, would be indistinguishable in characterization. In that case, we could

have a kind of correspondence that plays a deeply important explanatory role while still being expressible in deflationary terms. Whether we would call it one or the other would hardly seem to matter.⁸

But of course, perfect is what truth and denotation are not. Imagine next a flawed and complex map: it uses some projections in some areas and others in others, it is fuzzy around the edges, it uses different systems of representation in different places and it contains small and large-scale errors. Here the differences between the two theories of the map will be much more obvious. In analyzing the map's relationship to the terrain, we'll want to examine the parts that do represent accurately, to articulate what is lacking in the parts that do not. We may compare the various kinds of projections, isolate what is missing where the map gets fuzzy, and explain what parts of the map fail to correspond, and how those are different from the parts that do.

This image suggests how the correspondence theorist should understand the puzzling suggestion that no general theory of reference or denotation is necessary. To show that a map-like correspondence is non-deflationary, we ought to show how understanding correspondence will help us analyze the parts of our language that map our the territory imperfectly, or fail to represent anything at all. Without a general theory of denotation, a correspondence theorist ought to use cases in which we are most confident of representational relationships to understand and analyze those parts of our language that are most troubling. Such analysis is what I aim to do below, in giving my own account.

In accordance with our morals of the map, we should refine our interpretation of modesty so that it is clear that "no general theory" of denotation does not mean that

isolated cases must only be considered in isolation. In the case of the variable map, we do not want to insist that there be a single theory of the map -- a single kind of projection, or scale -- but we do insist that what we learn about the map's representational aspects be applicable to other areas of the map. This means that what we learn about denotation in one domain must be fruitfully applicable in other domains. Kitcher is right that we do not need a single general account of reference and denotation, but what we do need to show a need for genuine correspondence is this kind of "fruitfulness": findings about how denotation works in certain ranges of cases must be appropriately fruitful in thinking about denotation overall.

The second necessary shift involves "mind-independence." Kitcher offers the mind-independence of the entities denoted as part of his characterization of the modest correspondence theory, but I am not sure that this is the best characterization of the quality we desire. Kitcher himself notes that it is consistent with deflationism that the entities on the right hand side of the D-schema be mind-independent, so this quality is not adding anything to the distinctiveness of correspondence here. Invoking mind-independence this way leads to just the kind of questions that gave rise to the "comparison problem": how can I compare my sentences, beliefs, thoughts, etc., to the world, not just as it appears to me, but as it really is? Nothing is lost, I claim, by taking modesty to be partly epistemological modesty: our statements correspond to the world as we experience it, as it appears to us. This, I believe, is consistent with Kitcher's approach, since the world we experience is the world we interact with causally.

As I have suggested elsewhere, one way to keep a correspondence theory metaphysically modest and explore representationality is through a "naturalistic"

approach: trusting science as our best guide as to what the world is like allows us to give a precise sense to the idea of correspondence to the world as it appears to us, and also gives us tools with which to analyze correspondence (Marino 2006). Then, with respect to the traditional difficulties for correspondence, Tarskian recursion helps with worries about "facts," while metaphysical modesty obviates worries over deep congruence and the comparison problem. The account of predicates and properties I give below is meant to be a first step on developing this naturalistic approach to correspondence.⁹

The strategy is to use analysis of predicate denotation in the scientific domain to develop fruitful morals about denotation in general. In section 3 I argue explicitly that those morals have implications not compatible with deflationary accounts.

Some readers may be wondering about my map analogy on grounds that grounds that representation, while interesting and worth analyzing, is separate from truth. Of course we can explain and analyze the various ways in which bits of language denote bits of reality, this objection goes, and of course we can say general things about the success and failures of such correspondence relations. When we do this, our analysis does not involve us in saying anything about truth or denotation, but merely about our particular theories and whether and how they are good ones. A deflationary theory of truth leaves open questions about the representationality of language and thought, and is thus attractively simple and demystified.

I address this fully in section 4. But the short version of my answer is that the practices of ordinary speakers shows that pretheoretically, we do take questions of representation to fall under the scope of truth, and so that is their proper home. Questions about correspondence and representation are questions about truth.

2. Predicates and Properties

In this section, I am going to focus just on one part of the denotation story, elaborating a modest, naturalistic account of the denotation relationship for predicates and their extensions. In this, I draw on Mark Wilson's illuminating series of papers on predicates and properties, with one large caveat: though Wilson takes his examples and their morals to have some implications for "correspondence truth," he deploys these examples in a way that suggests that no tidy theory of predicate denotation can be extracted from them (Wilson 1982, 1985, 1994, 2000). Because deflationists can mimic case-by-case explanations easily, it seems to me that without some tidying it is impossible to evaluate how much support these examples provide for genuine correspondence truth. So here I try to present a particularly theoretical account of my own, which owes much to his discussion.

On a deflationary account, it follows immediately from the definitions and T-schema that "a is P" is true if and only if a is P, and so the object a falls under the predicate P just in case a is P. As I mentioned, nothing prevents the deflationist from adding case by case explanations of how particular predicates pick out their particular extensions: ordinary facts in the history of science will explain how "is a quark" came to be used to denote quarks, ordinary scientific facts will explain why we think "is a quark" is an interesting predicate and science itself will explain why we take any particular object to fall under it.

What is left to explain? The map analogy suggests that what we want to understand better is how predicates generally function with respect to extensions, so that

we can use our analysis to analyze cases of predicates whose semantic function is controversial. What kind of cases are these "controversial" ones?

The nature of predicate denotation plays an important role in debates over realism and anti-realism. Some such debates concern the question of whether the predicates in the given domain denote real properties. If they do not, from the correspondence point of view, the statements in question cannot be taken at face-value and taken to be true. In that case, we have various options. We can take the statements in the given domain to be false, as in the error theories associated with Field in mathematics and Mackie in ethics. Or we can say that the statements in question fail to really be assertions, as in the non-cognitivist view of ethics associated with Stevenson et al. and the formalist view of mathematics associated with, say, Hilbert. Or we can reinterpret the statements in question so that the logical form, and hence the predicates, of the statements are altered, as when we say in some subjectivist views of ethics that "X is good" means something like "I like X."¹⁰

What can we say about whether a predicate "really" denotes a property? Strikingly, some deflationists insist that this is the kind of pseudo-problem that properly disappears with the adoption of a deflationary view: there are predicates, and the only questions concern their extensions. A property, to put it metaphorically, is a mere a mere semantic shadow cast by a predicate; one cannot question whether predicate words really stand for properties.¹¹ And some have taken this to reorient the possibilities for troubling predicates: that they denote properties is a trivial matter; the only question is what extension those properties pick out.¹² If that extension is always empty, we may decide the relevant sentences are all false. But if we can find some way an object can be

plausibly thought to fall under the predicate, we can take the statements in question as true, without further worries about the nature of the predicate's relationship to reality.

So, how might a naturalist correspondence theorist undertake an analysis of the nature of properties and the predicate-property relation? Notice first that the burden, as I have constructed it, is not to distinguish cases in which there is "really" a property, in some mind-independent metaphysical sense, attaching to a given predicate. The task is rather to see if there is a useful distinction to be drawn between predicates that do straightforwardly denote properties and predicates that do not, in the ordinary sense, and to see whether an analysis of this denotation relation can be fruitful.

Given this, we should start by asking what, in ordinary practice, we take to be evidence of a property properly associated with a given predicate. There are three parts to my answer. One concerns consilience, or agreement: we want to know whether there is independent consistent classification of various observers using various methods to determine whether a given object has a particular property. A second involves explanation: we want to be able to explain, from within our best current understanding of the world, how we have knowledge that the objects have been properly classified. A third concerns what I call stability: the outcomes of previous classifications should not affect the classification in question at the moment.¹³ This triad of conditions, or so I'll argue, can be seen at work in ordinary empirical cases, and can be usefully deployed in understanding predicate denotation generally, in difficult cases, thus fulfilling our correspondence requirements.

As Wilson suggests, thinking of ourselves as classifiers, we might decide to look first at our practices with non-human classifiers, that is, measuring devices. Some such

devices we have come to trust deeply, such as thermometers. What makes these devices seem so trustworthy, and what makes us think that the properties they measure are bona fide? Well, first, there is the fact of consilience: in this case, over time, a range of differently constructed instruments delivered consistent results measuring temperatures.¹⁴ And second, appropriate explanations: we understand the workings of thermometers; we understand them well enough to be able to explain how the thermometer as constructed measures what we take temperature to be.

This pair of conditions can immediately be used to provide some constraint on what can function as a property. That the followers of Wilhelm Reich built boxes to measure sexual energy in the form of 'orgone' does not imply that there is a real property *orgone*; rather, in this case, the lack of other devices giving corroborating information and the lack of appropriate explanatory links suggest that the predicate 'orgone' links to no property (See Wilson 1985, pp. 247-248 and 1982, pp. 562-563).

The relationship between devices and the properties they measure are complex and contextually sensitive. For example, devices function well only under the right background conditions. Mercury thermometers don't function correctly in the presence of shock waves; they measure well only within a certain range of temperatures; and their readings are complicated by sunlight. When we say, "mercury thermometers measure temperature" we implicitly acknowledge that this is so only under the right conditions. That is, thermometers measure temperature only relative to a certain range of application, used in a certain way, that is, only relative to a certain set of implicit parameters.¹⁵

Such restrictions function for human classifiers as well, of course, and in similar ways. We can only classify objects under the right kinds of conditions, that is, relative to

implicit parameters involving things such as our position with respect to the object in question and our ability to sense whatever property is under consideration. The two constraints map over as well: our confidence in properties is increased by consilience in the form of independent agreement from different observers using different methods and explanations of how classifiers are able to make the distinctions and classifications that they do. For predicates, though, we will be interested in a third condition: stability. Unlike most mechanical devices, people are, as Wilson says, "self-correcting measurement devices with memories," that is, their classifications are affected by the history of their earlier classifications (Wilson 1982, p. 576). The more classifications are affected by the order of testing, the less confident we are that we are detecting a real property rather than projecting our classification scheme on the world. Thus we add the following third condition: for a predicate to be associated with a property there should be some settings for the parameters under which almost all objects within the range of application will be consistently classified regardless of the order in which they are tested.

Summing up, we can say that a predicate P denotes a property Q when people, under the right conditions, using a variety of methods, classify objects as P when the objects have property Q; when we have a good explanation of how people are able to detect property Q; and when their classifications are not affected by the order of testing. I call this last "stability."

We can use this triad -- consilience, explanation, and stability -- to judge the eligibility of a given contender for propertyhood. Two kinds of cases are of particular interest: that in which a predicate denotes no property, and that in which a predicate

denotes multiple properties, in contextually sensitive and previously unrecognized ways. Let me say a bit about each of these, with examples to make the overall proposal clearer.

First let's look at a case of a non-denoting predicate: 'orgone'. I said above why organometers should not be taken to measure a real property. What about the predications of Reichian speakers? These do not suffice either: we can only assign a property index to the predicate if we can find a range of application, and values for the other parameters, such that 'is orgone' predication satisfies consilience, explanation and stability. Since this goal has proved elusive, and there seems to be no way to fix the parameters properly, there is no property for 'is orgone' to link up to.¹⁶ Here is a predicate that denotes no property. On a deflationary view, it seems the most plausible treatment of a case like this is to say that because nothing is orgone, the extension of the predicate is empty. I explore in the next section the significance of the difference between empty extensions and failures of denotation.

Let me turn now to predicates that denote various properties, in contextually determined ways. On the account being offered here, the implicit parameters determine how this may happen. For example, consider again the case of temperature. As I mentioned before, the way thermometers measure temperature is contextually sensitive. One contextually relevant matter is radiation: when placed in the sunshine, a thermometer will register higher than the true air temperature. In contexts in which true air temperature is what is wanted, one makes use of a special device, consisting of a thermometer inside a protective casing. Measuring in those contexts, the experts (meteorologists or whoever) will consistently use the predicate 'is 90°F' when

encountering air whose true temperature is 90°F; specifically, their predicate is tied to the property *is 90°F*, which is associated with the extension of air that is 90°F.

Things get more complicated when we look at other uses of the predicate. When placed in the sun, a thermometer will naturally read hotter than the true air temperature, and of course, it feels hotter in the sun. So when people read the thermometer outside their window on a sunny day and it reads 90°F, how should we understand their exclamations of "It's 90°!"? The right answer, on this account, is that because those exclamations track an actual regularity, we can associate with the predicate a property. That property will be a complex average of the true air temperature with the radiant energy from other sources. The three conditions for this complex average are met: 1) Various people using different thermometers will track the same such average in their exclamations, giving us consilience. 2) We have a good explanation for the connection between their measurements and their predicate classification, one that involves true air temperature, the workings of thermometers, and radiant energy, giving us explanation. 3) People make this predicate classification in a basically uniform way, giving us stability. Notice that these conditions might fail, if, for example, people were judging without thermometers, and unaware of the effect that their personal state might have on their judgments.¹⁷ So we've got a candidate for a good predicate property-index, and thus a way of showing that people saying "It's 90°F in the sun" are measuring a real property. How is this predicate index related to true air temperature?

This is where the implicit parameters come in. The predicate 'is 90°F' functions with respect to two different ranges of application: one in which we always take care to discount the radiant energy, and one in which it is part of what is being measured (part of

a complex average). The former is likely to be most often practiced by "experts" and the latter most often in ordinary contexts, but there is nothing to prevent, say, an amateur weather-watcher from making use of whichever one he pleases. Notice that in contexts in which the radiant energy is very small, these ranges of application will overlap, so in practical terms, there can be occasions on which we can judge with confidence without pausing to determine which set of conditions is appropriate. Here we have one predicate associated with two real properties. Other predicates share this quality. The predicate 'is hard,' for example, is linked with various properties, depending on the material being tested: it can mean scratch-proof, indent-proof, or likely to regain original shape. The most plausible treatment of such a case for the deflationist is to appeal to ambiguity. On this story, there are really two predicates -- 'is 90°F₁' and 'is 90°F₂,' or several -- 'is hard₁' 'is hard₂' and 'is hard₃.' and we must disambiguate before judging whether a particular utterance is true. In the next section I explore the significance of the difference between multiple property denotation and ambiguity.

Recall, the task is to find fruitful ways of analyzing the predicate-property relation, without running into the traditional problems of correspondence theories, by pursuing modesty via naturalism. I have not yet made good on the "fruitful" element of this task -- that is coming next. But I hope it is clear that the kind of analysis on offer here is properly "modest." Our statements are compared not to mind-independent, uncognized reality, but just to reality as it appears to us -- the ordinary external world that we interact with everyday. No facts are posited or needed, and there are no claims about deep congruence.

3. Realism, Anti-realism, Denotation and Deflationism

My task here is to show that the kind of analysis proposed in section 3 yields the sorts of insights that are fruitful. My claim is that the insights of denoting and non-denoting predicates are fruitful in the project of understanding and conducting debates over realism and anti-realism, and that the insights of multiple property denotation are fruitful in the project of better understanding and describing the world around us.

Consider the example of normative discourse. A common doubt here concerns whether there can be any normative properties at all: certainly we have normative predicates, but are there really properties such as wrongness, goodness, and so on?

Notice first that the analysis of section 2 gives us a specific method for starting to answer this question -- a method that matches up nicely with, and actually explains, some of our most common intuitions about how to talk about moral realism and anti-realism. It is often pointed out there seems to be a great deal of disagreement in morality, and that this disagreement is evidence against moral realism.¹⁸ The status of such claims has long been controversial, in part because it is not clear what counts as disagreement and how much is "a great deal." But what matters here is that my analysis of predicates explains why disagreement seems to matter so much: failures of consensus raise doubts over whether normative predicates denote properties. A second locus of interest here concerns moral epistemology: how do we know when a given normative predicate properly applies? From the point of view being developed here, this question arises because to trust that normative predicates denote properties we need explanations of how we could detect those properties. Finally, a third recurrent worry in moral realism concerns the way our intuitions can easily be altered by asking us to make moral judgments in varying

contexts; that this worry causes us to doubt moral realism can be explained by appeal to the fact that stability is a relevant constraint.

Now, what is the significance of this for truth? As I mentioned at the start of section 2, for a deflationist "a is P" is true if and only if the object a is in the extension of the predicate P -- this follows immediately from the definition of truth and denotation. There is no question, then, of whether P denotes a property. There are two ways a deflationist may try to make room for the sort of account I have given. One is to say that there is, indeed, no meaningful question of whether a predicate denotes a property; the only interesting question is what extension a predicate has; in that case, in the relevant range of cases, we will have to take the predicates in question as simply having empty extension. A second is to say that there is a meaningful question about predicates and their function, but that it doesn't have to do specifically with denotation, and therefore doesn't have to do with truth. Let me leave this second option for the next section; here I claim just that the first leads to a view that is importantly different from modest correspondence.

The difference between saying that predicate P doesn't denote and saying that it denotes an empty extension manifests itself most strikingly this way: in the first case, while we may decide the sentences in question are false, we may decide instead that they have no truth-value, while if P has an empty extension, then claims of the form "a is P" are just false. And it is well-known that deflationists have trouble accommodating the possibility of sentences with no truth-value: since "a is P" is true if and only if a is P, there can be no truth-value gaps.

What is the significance of this? Consider again the non-cognitivist views of ethics mentioned above. The central idea of these is that ethical claims do not function as assertions; they do not stand for beliefs and are not literally true or false. Instead, they function to express attitudes of approval and disapproval.¹⁹ If deflationism makes no room for truth-value gaps, then it seems that doubts about normative predicates would lead immediately to an error theory, with no room for such "expressivist" views.

Some deflationists, such as Paul Horwich, take this to be a non-problem: the insights of expressivism, he says, should be formulated to be consistent with the fact that moral claims are fact-stating (Horwich 1998). Then deflationism is clearly different from modest correspondence. Though his treatment of this problem differs, Hartry Field seems to agree with basic idea when he takes it as "obvious" that "evaluations have a factual component" (Field 2001b, p. 243; Field is discussing Gibbard 1990). As long as deflationists insist that sentences with grammatical assertoric form must be fact-stating and have truth-values, this strategy separates deflationism from modest correspondence.

Another deflationist strategy might be to adopt Field's earlier, later rejected, idea of an operator -- in this case, an "*It is a fact that* operator." Then while we may say in the normative case, "Lying is wrong," is equivalent to "'Lying is wrong' is true," we would insist that for neither of these last two sentences is it proper to append "*It is a fact that*" to the front. Both the sentence and its truth-attribution share the same non-factual status. (See Field 2001b, p 242, for discussion and rejection of this idea.) Field rejects this treatment on the grounds that to be consistent with the deflationary insight such an operator must be understood syntactically, through its rules of use. And it is not clear what rules we would use in this case.

But the important issue in the present context is not whether there are such rules, but rather that a syntactic operator cannot capture the proposed reasoning behind its introduction, since such reasoning is inherently semantic. Even if an operator could be found that would mimic what we mean when we deny truth-aptness, this variety of deflationism leaves us with no way to understand the particularly semantic line of argument: there is no property here, because of our account of denotation, and thus so the statement fails to have a truth-value.²⁰

A third deflationist strategy might be to try to articulate, at some stage before the construction of the truth-schema, a distinction between assertions and non-assertions, and to say that only for the former does the schema apply. Then only for genuine assertions are there truth-value gaps.²¹ But, while this may allow for truth-value gaps, it again fails to capture -- indeed, cannot capture -- the reasoning behind them that is inherently based on specific semantic reflections about predicates, rather than on general reflections about a sentence's status as a genuine assertion. Still, modest correspondence is different from deflationism.²²

Now, what about multiple property denotation? Again, some deflationists will agree with me that their account does not accommodate multiple denotation and others will insist that the phenomenon, while real and important, does not involve truth or denotation per se. Again, I leave discussion of this second option to the next section. For the former, the most obvious way to approach what seems to be multiple property denotation is via ambiguity. In the case of my simple example above, then, he might say that there are really two predicates -- 'is 90°F₁' and 'is 90°F₂,' and we must disambiguate

before judging whether a particular utterance is true. Predicate P picks out one extension when it functions as P_1 and another when it functions as P_2 .

The difference between using ambiguity and using the account I give above has to do with the way the denotation account forces questions about the connections between the properties denoted: we must be able to find settings for the parameters that explain our practices using the predicate to denote various properties in order to say that we have a case of multiple denotation, while we can posit ambiguity wherever we please.

Consider the familiar Lewisian functional role theory of pain: pain for a being, Lewis says, is whatever physiological state is a pain state for that population: the "concept" of pain, then, is instantiated as different properties in different kinds of beings. A deflationary account of the predicate must treat "'pain' denotes pain" as following immediately from our theory of denotation; for this to make sense of Lewis's account, each of these two occurrences of 'pain' must be understood with matching ambiguities: pain is pain_1 in humans, is pain_2 in Martians, and so on. On the modest correspondence account, we must answer the question, why do all these things count as pain -- what ties them together? A notoriously difficult question. On the ambiguity account there seems to be no need for such an explanation. Intuitively, we require explanations such as these, for these cases seem importantly different from those such as "bank," which manifest ambiguity of the most straightforward kind. The ambiguity account leaves us unable to explain the relevant connections from within our theory. In the next section I consider the reply that such explanations are needed, and can be given, but not as part of understanding truth and denotation.²³

4. Deflationism and Scope

The discussion in sections 2 shows how we might take analysis of our maplikeness in cases we understand well to start analyzing parts of the map we do not. In section 3 I discussed a few particular ways in which a modest correspondence theory grounded in such a process might differ from a deflationary view. But deflationisms vary. On some versions, the benefit of deflationism is not that it dissolves meaningless questions about maplikeness and correspondence, but rather that it teaches that such questions, while important and valid, are not part of a theory of truth or denotation. I call this the "scope move" (Marino 2006).

The scope move strategy tries to distinguish questions about representation, or representationality, and questions of denotation and truth.²⁴ For a "scope" deflationist, the relationship between a sentence and the conditions that make it true is trivially expressed in the T-sentences and in the deflationary denotation D-schema, and whether our theories are map-like, and how they are, is a reasonable, non-trivial, but separate matter. On this approach, the semantic reasoning that leads to conclusions about truth-value gaps and the connections between the properties denoted by a predicate is perfectly valid; it just doesn't concern truth. When I ask whether a theory is true, I am merely using the word 'true' as a device of generalization: for any sentence S of the theory, is it the case that S? It may then be a further matter how the bits of language used in the theory denote or fail to denote as they do. The fruitful reflections on denotation I have discussed here would be part of this latter business.

The first thing to notice is that the scope strategy can be applied to any form of correspondence, so the fact of this possibility does not imply anything special about

modest correspondence as opposed to any other kind of correspondence. A traditional correspondence theory could be easily captured by saying that my theory of representation is such that a sentence S stands for a certain proposition under certain complex circumstances, then add that for propositions, P is true iff P. Nothing here makes the triviality problem more of a problem for the modest theory than for a non-modest theory.

More importantly, our pre-theoretical use of the word 'true' includes in its scope reflections on representationality beyond the T-sentences. As I have argued elsewhere, when we ask whether Freudian psychology is true, we mean more than simply a list of questions asking whether sentences are true, considered in isolation" (Marino 2006). We mean to ask also whether the representational system of the theory matches up well with the elements of our mental lives, where it seems to get something right, where it seems to fail, where it seems to be almost on the right track. When the ontological or moral skeptic wonders whether the claims of mathematics or ethics are really true, he is not simply asking "Is 2+2 really 4" or "Is lying really wrong?" but is trying to ask a more general question about systems of representation and how they function. Some may doubt there are bona fide questions here going beyond the list, but that is a different matter -- these doubters are not making the scope move anyway.²⁵

I have argued for a particular interpretation of "modesty" under which a correspondence theory can be both plausible and distinctive; I have given a first step toward articulating a modest theory in a naturalistic spirit -- an account of predicate

denotation; and I have argued that my account is appropriately modest and yet does not collapse into a deflationary one.

Intuitively, the appeal of the correspondence theory is, and has always been, that it offers the best way of capturing the sense that our theories are true when they bear some important, interesting, rich relationship to the way the world is. One form the deflationary challenge presents us with is the possibility that this relationship is best understood through case-by-case analyses which do not, themselves, amount to a "theory" or general account of truth or denotation. I have shown some ways in which this relationship does stand in need of more than case-by-case analyses. Presented with such considerations, a typical deflationary strategy is to allow the interest of such considerations, but to deny that concern truth or denotation. With deflationism understood this way, the difference between correspondence and deflationism is one of scope, and deflationism is not intended in any skeptical or doubtful mood.

If I am right, however, that our pretheoretic use of words like "true" and "denotes" fits with the correspondence interpretation of their scope, non-skeptical deflationisms must take great pains to distinguish themselves from more skeptical counterparts -- those views that do, indeed, deny that true theories bear an important, interesting, rich relationship to the world.²⁶ In that case, why not simply adopt modest correspondence?²⁷

1. For discussion, see (Marino 2002). There I develop a list of features a correspondence theory ought to have in order to avoid implausibility and triviality.
2. Of course, developing and defending a complete correspondence theory is a task too large for a single paper. But I hope to show how the account of predicates and properties is really a step "toward" such a theory. I have been asked, why pursue a step toward a correspondence theory rather than simply write a paper criticizing deflationism. The answer is that there are many papers criticizing the deflationary account of truth; it is time for critics to offer a genuine positive alternative. Correspondence, too, stands in need of careful elaboration. Here I agree with Douglas Patterson when he writes, "Were the correspondence theory formulated with more care often we could expect that the debate between substantialists and their deflationary opponents would be more fruitful than it has been" (Patterson, 2003, p. 421).
3. David Pears raises a similar objection to Russell's logical atomism in his Introduction to (Russell 1985). See (Pears 1985, p. 2).
4. The following offer versions of this problem as a fundamental obstacle faced by a correspondence theory: (Walker 1997, p. 320); (Alston 1996, Chapter 3); (Putnam 1978, p. 110), (Blackburn 1994, dictionary entry on Correspondence Theory of Truth); and the entry on the correspondence theory in the Stanford Encyclopedia of Philosophy, by Marian David (David 2005). The last calls it the problem of "independent access."
5. For more about deflationism, see, for example, Field (2001a), Horwich (1998), and Leeds (1978) and (1995).
6. For a related argument see Gupta (1993).

7. Patterson (2003) argues that for true (as he calls it, "strong") correspondence, one needs a "generalized and noteworthy structural relationship" (p. 424). As will become apparent below, I do not believe that a kind of general structural isomorphism is necessary to distinguish correspondence, but I do agree with Patterson that simply implying T-biconditionals is not enough to make a theory non-deflationary.
8. Kitcher says we can see the correspondence theory is necessary in understanding success in this way. Consider Ophelia successfully using a map to find her way to the brook. "Even though we may not know the details of the causal relations that underlie Ophelia's coordination of symbols with items in the world, we recognize that those causal relations will share a common structure with the relations that hold between the objects in her vicinity and her perceptual states" (2002, p. 358). It seems me an accurate map, whose accuracy is expressed in the "deflationary" map theory I have described, and which was properly constructed, would guide Ophelia properly. I agree with Kitcher when he argues in the next section that an account of maplikeness is necessary in explaining Ophelia's success, I just not convinced that his account makes plain that such a thing requires a non-deflationary account of truth. I am trying to make this plain.
9. A step I believe to be much in the spirit of Kitcher (2002).
10. In my (2002), I called this requirement Content-Implication, and I argued it was an important feature of a modest correspondence theory. Content-Implication says that "True sentences, if not true in virtue of form, must be true of something. Thus sentences whose subject matter we have doubts over can't be both true and taken at face-value. They are either not true, or not assertions at all, or must be reinterpreted to have different content" (see esp. pp. 430-431).

11. Simon Blackburn says properties are "semantic shadows" of predicates (1993, p. 8).

12. For example, Horwich (1998) says that it follows from deflationism that we must take normative statements as truth-apt. It seems normative predicates must denote normative properties.

13. It is possible that in the end a deeper more complex analysis of "stability" would be appropriate, but for now I am not sure what form it should take beyond this simple criterion.

14. I use 'consilience' here in the ordinary sense of meaning agreement or concurrence.

15. See Wilson (1982), section IV for discussion of temperature and of implicit parameters.

16. This is of course different from the treatment we'd get from a causal theory. One puzzle of the causal theory concerns empty predicates; it seems on the face of it that that "this is orgone" is a baptism event.

17. If a person, for example, had too little to drink, they might classify temperatures in a way that is inconsistent with others.

18. For example, see Mackie (1997).

19. For contemporary accounts, see Blackburn (1984) and (1998), and Gibbard (1990) and (2003); it has become less clear, though, to what extent expressivism involves denying truth-aptitude, as the discussion below shows.

20. In the end Field endorses a deflationary reconstrual of Gibbard's norm-expressivism; as I've mentioned this view already allows that ethical claims have a factual component.

21. For a related suggestion, see Frank Jackson, Graham Oppy, and Michael Smith (1994).

22. For more on the relationship between truth and expressivism, see my (2005).
23. It may seem odd that the seemingly dramatic question of correspondence versus deflationism has come down to these relatively detailed, seemingly technical differences. It is odd, but I think it is unavoidable; as I've argued, it seems discussion at a higher level of generality fails to distinguish between correspondence and deflationism. Those who are unconvinced by this bit of reasoning distinguishing modest correspondence from deflationism I hope can still take away an important moral from my paper. This is the best Modest Correspondence can do. If it is not enough, perhaps deflationism and correspondence cannot be adequately distinguished.
24. Although he is not unambiguously a proponent of the scope move, Simon Blackburn illustrates the idea when he writes, "It means separating truth (in this application at least) from 'represents' and its allies, but nobody has ever pointed out the harm in that." Blackburn (1988, p. 504).
25. In my experience, when I explain the deflationary theory to a non-philosopher, the most typical immediate reaction is that it must be a skeptical theory. This isn't right, but this reaction reflects the pre-theoretical idea most people have that the word true is used to discuss representationality; if truth is trivial, there must be some sense in which the project of analyzing representationality is doomed.
26. I argue this way in my (2002).
27. I am grateful to Penelope Maddy for our many discussions about truth and related matters. Thanks also to Dave DeVidi, Alan Nelson, Kyle Stanford, Paul Thagard, Mark Wilson, and several anonymous referees, including one for this journal. Versions of this material were presented in Sol Feferman's 2003 seminar on truth, in the The University of

Waterloo Philosophy Department colloquium series, and at the 2006 meeting of the Society for Exact Philosophy; thanks to all the participants.

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