

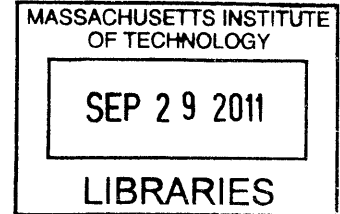
WHAT LIES BENEATH?
A DEFENSE OF CATEGORICAL HUMILITY

by

Christopher J. Robichaud

M.A. Philosophy
Texas A&M University, 2001

B.A. Philosophy
John Carroll University, 1996



ARCHIVES

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Signature of Author: _____

Department of Philosophy
September 20, 2010

Certified by: _____

Rae Langton
Professor of Philosophy
Thesis Supervisor

Accepted by: _____

Alex Byrne
Professor of Philosophy
Chairman, Committee for Graduate Students

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ABSTRACT

The three chapters of my dissertation develop and defend a new Humility thesis, Categorical Humility. Humility theses tell us there is some fundamental aspect of the world that we lack knowledge of. All such theses share two parts: an *existence* claim, stating that there is in fact this portion of the world, and an *ignorance* claim, stating that knowledge of it escapes our epistemic grasp.

In Chapter One, co-authored with Rae Langton, I sketch the landscape over which current interest in Humility theses has focused its attention. Specifically, Rae Langton's Kantian Humility and David Lewis's Ramseyan Humility are concisely presented, motivated, and defended against a variety of objections. This chapter is meant to orient the reader to the shape of the debate and to set the stage for my own view, Categorical Humility.

I turn to motivating that view in Chapter Two, where I develop it in the context of a more detailed examination of Ramseyan Humility, its nearest ancestor. My overall strategy is to establish a stronger conclusion than Lewis does by nevertheless employing weaker premises. I argue that our ignorance amounts to more than us not knowing the identities of the fundamental categorical properties; it also amounts to us not knowing whether these properties are physical or mental.

Chapter Three considers two challenges to Categorical Humility, one that attacks the *ignorance* component of the thesis and one that attacks the *existence* component. And two important conclusions emerge from my response of these objections. The first is that Categorical Humility is incompatible with physicalism, at least as physicalism is often articulated. The second is that a certain meta-Humility thesis is true; namely, there's a fact of the matter about whether, say, dispositions are necessarily connected to their categorical bases, but we can't come to know what that fact of the matter is. I conclude by clarifying how my own defense of Categorical Humility should be understood in light of this meta-Humility thesis.

Thesis Supervisor: Rae Langton
Title: Professor of Philosophy

BIOGRAPHICAL NOTE

Christopher Robichaud received his B.A. in Philosophy from John Carroll University (1996) and his M.A. in Philosophy from Texas A&M University (2001). His research is focused broadly in the areas of metaphysics, ethics, and epistemology. A portion of his work is also devoted to exploring the philosophical themes that are found in superhero narratives.

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I would like to thank my thesis committee, Rae Langton, Steve Yablo, and Alex Byrne, for their ongoing support and encouragement over the years. I would also like to thank the entire MIT philosophy community, faculty, staff and fellow graduate students, for making my time here one I will never forget. It's been wonderful.

This thesis is dedicated to my mother, Rosalie Robichaud, and to the memory of my father, Del Robichaud.

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INTRODUCTION

1. *A Variety of Humility Theses*

Humility theses tell us there is some fundamental aspect of the world that we lack knowledge of.¹ All such theses share two parts: an *existence* claim, stating that there is in fact this portion of the world, and an *ignorance* claim, stating that knowledge of it escapes our epistemic grasp. The similarities end there. A Humility thesis might maintain that we're ignorant of some particular objects—Kantian things-in-themselves, say, understood as entities standing outside of space and time. Or it might maintain that we're ignorant of some properties—intrinsic properties instantiated by the fundamental particles described in our best physical theory, for instance. One thesis might claim that our ignorance is merely contingent, while another might claim that we can't even in principle possess the knowledge in question. And this lack of knowledge itself is open to various interpretations. A Humility thesis might understand our ignorance as an inability to be directly acquainted with this aspect of the world. Another might understand it simply as our lacking of a certain bit of propositional knowledge.

Despite there being many different ways to develop the thought that there is a fundamental part of the world that we're ignorant of, Humility theses can be organized into several distinct families. One comes by way of engaging Kant, the most obvious and important historical figure to embrace this idea. Ongoing attention to his work has resulted in a variety of different Humility theses being advanced, all done in an attempt to get clear about what Kant's position is and what his arguments for it are. A second family stems from the literature on structural realism, the view, roughly, that our scientific theo-

¹ Rae Langton (1998) is the first to use 'Humility' to pick out claims of this sort. I adopt its use in deference to the growing literature that employs it.

ries give us knowledge of the structural features of the world, but not its nature, it being argued that this is the only tenable kind of scientific realism there is. John Worrell (1989) was the first to explicitly present and defend this idea. But his paper quickly gave rise to scholarship connecting his view to similar thoughts found in the works of Poincare, Russell, and Carnap, to name a few.²

A third family neither comes directly by way of engaging Kant, nor by way of any immediate concern over what version of realism—if any—best characterizes our scientific theories. It results instead by drawing out the consequences of a handful of independently motivated and mutually attractive positions that span metaphysics, epistemology, the philosophy of language and the philosophy of science. A few ideas along these lines have been given voice by the likes of Frank Jackson and David Armstrong³, but to date only David Lewis (2009) has offered a detailed articulation and defense of such a view.

2. *Ramseyan Humility*

Lewis's Ramseyan Humility is a thesis that has us ignorant of the identities of those properties realizing the fundamental roles given to us by our best scientific theory of the world. Suppose physics tells us that the fundamental particles are protons and electrons. We learn that they behave thus-and-so under such-and-such conditions. These causal profiles are associated with specific dispositions. And the fundamental properties are the grounds of these dispositions. Positive charge, for instance, is one of the fundamental properties possessed by protons; it is the categorical grounds of the proton's disposition to behave a certain way under conditions C1, another way under conditions C2, and so forth. And

² See Ladyman (2009) for a survey of this literature.

³ David Armstrong (1968), Frank Jackson (1998)

what we're specifically ignorant of, according to Lewis, is which among the possible fundamental properties eligible to play this role is the one that positive charge is actually identical to. As he puts it,

To be the ground of a disposition is to occupy a role, but it is one thing to know that a role is occupied, another thing to know what occupies it...no amount of knowledge about what roles are occupied will tell us which properties occupy which roles. (Lewis 2009, p. 204).

The case Lewis makes in defense of Ramseyan Humility has come under considerable scrutiny. Alyssa Ney (2007) maintains that Lewis is guilty of incoherence; at least one of the premises of his argument rests on the truth of physicalism while his conclusion—the thesis of Ramseyan Humility itself—is incompatible with the truth of physicalism. Stephen Leuenberger (2010) saddles Lewis with a similarly serious problem, arguing that the most charitable reconstruction of Lewis's argument results in him endorsing the worrisome claim that we are incapable of entertaining any propositions other than those that supervene on the fundamental structure of the world.⁴ Jonathan Schaffer (2005) regards Ramseyan Humility to be nothing but a kind of external world skepticism 'writ small', and as such, considers it easily handled by whatever one's favorite solution to such skepticism is.

Even if all these complaints prove incorrect, Ramseyan Humility still stands charged with being, at best, an entirely innocuous kind of ignorance. If properties like positive and negative charge are among the fundamental categorical properties, and we know which entities have these properties, and moreover, know which causal profiles they in fact ground, then whatever further knowledge we lack in terms of their identity, it

⁴ Roughly, this is a global supervenience claim to the effect that, necessarily, there is no change in the truth value of a proposition without there being a change in the structural features of the world. If Leuenberger is correct, not only is Lewis much closer to the structural realist camp mentioned above than he likely imagined himself, he also is committed to us being incapable of even entertaining propositions that Lewis elsewhere thinks we surely can entertain, such as the proposition that physicalism is true.

doesn't seem like it can be that serious. Lewis himself acknowledges this. 'Why is Humility 'ominous'? Who ever promised me that I was capable in principle of knowing everything?'⁵ And Dustin Locke, who gives Lewis a sympathetic reading, agrees. '[I]f there is one thing to the dispute over Humility that all parties to the debate are agreed to, it is that Humility is probably the most benign form of ignorance one could have'.⁶

3. *Going Forward*

This last concern will be the preoccupation of this thesis. There is a case to be made for a Humility thesis of the third variety discussed above, one that is neither presented in the context of reconstructing Kant's arguments nor in the context of defending structural realism. But the case that can be made needs to move beyond Ramseyan Humility, even if all the objections to it can be met. There's no reason to defend—or attack, for that matter—a Humility thesis that, if true, is about as interesting as the claim that we can't know exactly how many fruit flies existed one thousand years ago.

At the same time, there's also no reason to throw out the baby with the bathwater. Much of the metaphysics Lewis appeals to is compelling. As such, I present and defend a new Humility thesis that takes the best from the case that Lewis makes for Ramseyan Humility and leaves the rest, filling out the reasoning in a way that avoids the criticisms leveled against him while also defending a thesis with some bite. My overall strategy is to establish a stronger conclusion than Lewis does by nevertheless employing weaker premises. I argue that our ignorance amounts to more than us not knowing the identities of the

⁵ Lewis (2009), p. 211.

⁶ P. 238

fundamental properties; it also amounts to us not knowing whether the fundamental categorical properties are physical or non-physical. Call this thesis ‘Categorical Humility’.

I develop Categorical Humility as follows. In Chapter One, co-authored with Rae Langton, I map the terrain over which current interest in Humility theses has focused its attention. Specifically, Rae Langton’s Kantian Humility and David Lewis’s Ramseyan Humility are concisely presented, motivated, and defended against a variety of objections. This chapter is meant to orient the reader to the shape of the debate and to set the stage for my own view, Categorical Humility. I turn to presenting and defending that view in Chapter Two, where I develop it in the context of a more detailed examination of Ramseyan Humility, its nearest ancestor. Doing this allows me to make clear both my own position and Lewis’s, as well as allowing me to demonstrate why my version is superior to his. Chapter Three considers two objections to my view, one to the *ignorance* component of the thesis and one to the *existence* component. While attending to the former I show why Categorical Humility is incompatible with physicalism. Regarding the latter, one of the more interesting ways to avoid Categorical Humility is to embrace a version of causal structuralism that either insists on their being a necessary connection between dispositions and their categorical bases, or that rejects altogether the idea that dispositions have categorical bases. After raising a few concerns with causal structuralism, I go on to admit that there is no entirely satisfying way to demonstrate the superiority of one metaphysical system over another that doesn’t, at some important point, come down to a matter of personal taste. Lewis explicitly acknowledged this problem when motivating his own views. And so, using his observations as a starting point, I defend in the second part of this chapter a meta-Humility thesis about the very project of doing metaphysics; namely, I argue that we should accept that there’s a fact of the matter about whether, say, there’s a neces-

sary connection between dispositions and their categorical bases, but also, we should acknowledge that we can't come to know what that fact of the matter is. I conclude by clarifying how my own defense of Categorical Humility should be understood in light of this meta-Humility thesis.

CHAPTER ONE
GHOSTS IN THE WORLD MACHINE? HUMILITY AND ITS ALTERNATIVES⁷
 Rae Langton and Christopher Robichaud

1. Humility

1.1. Background

At the heart of being lies a mystery, according to Kant: we have ‘no insight whatsoever into the intrinsic nature of things’. Some people complain, but their complaints are misguided.

If the complaints that ‘we have no insight whatsoever into the intrinsic nature of things’ are supposed to mean that we cannot grasp by pure understanding what the things which appear to us may be in themselves, they are completely unreasonable and stupid. What is wanted is that we should be able to be acquainted with things without senses! (Kant, 1781/1787, A277/B333)

The complainers cherish a hope that our minds should grasp how the things that appear to us may be ‘in themselves’. But this is ‘completely unreasonable and stupid’. And why? It amounts to a hope ‘that we should be able to be acquainted with things without senses’—a foolish hope that

we should have a faculty of knowledge completely different from the human, not just in degree... but also in kind—in other words, that we should be, not human beings, but beings of whom we cannot even say whether they are possible, still less how they are constituted. (A277/B333)

Given that we are human beings, not gods, we are receptive creatures who find out about

⁷ Besides making some stylistic changes in order for the presentation of this chapter to be consistent with the rest of the thesis, it remains largely unchanged from the version in print. I have, however, chosen to amend a very few things in the interest of making the conclusions of this chapter compatible with the conclusions in the rest of the thesis. These changes are all flagged with an ‘*’.

the world by sensing it: our knowledge of the world depends on our being affected by it. This fact of receptivity destines us to ignorance of an intrinsic aspect of the world.⁸

Kant's pessimism is shared by a number of more recent philosophers. Bertrand Russell (1927) said that science gives us knowledge of the structure of the world, but that 'we know nothing of the intrinsic quality of the physical world' (p. 264). Grover Maxwell (1978) said that science leaves us 'completely ignorant as to what [the] intrinsic properties are' (p. 9). David Armstrong (1968) says,

if we look at the properties of physical objects that physicists are prepared to allow them such as mass, electric charge, or momentum, these show a distressing tendency to dissolve into relations that one object has to another. What, then, are the things that have these relations to each other? Must they not have a non-relational nature if they are to sustain relations? But what is this nature? (pp. 74-5.)

Frank Jackson (1998) says,

I think we should acknowledge as a possible, interesting position one we might call Kantian physicalism. It holds that a large part (possibly all) of the intrinsic nature of our world is irretrievably beyond our reach, but that all the nature we know about supervenes on the causal cum relational nature that the physical sciences tell us about. (p. 24)

Most recently David Lewis (2009) has agreed with Kant (or Langton's version of Kant).

We are ignorant—

of the intrinsic properties of substances. The substances that bear these intrinsic properties are the very same unhidden substances that do indeed affect us perceptually. But they affect us, and they affect other things that in turn affect us, in virtue of their causal powers, which are among their relational properties. Thereby we find out about these substances as bearers of causal powers, but we find out nothing about them as they are in themselves.

This opinion is, he says, 'true'—'or at least something very like it is' (p. 203).

⁸ Langton (1998)

According to Humility, we can in principle learn about everything in the world that physics describes; nothing in the great machine of the world is beyond us. But we are missing out on certain intrinsic properties, which we should not, perhaps, call ‘physical’—first, for the minimal reason that physics cannot capture them; second, for the more troubling reason that they may, for all we know, be mental. Jackson describes the view as ‘Kantian physicalism’: but it is hardly physicalism, if the fundamental properties ‘irretrievably beyond our reach’ are not what ‘the physical sciences tell us about’. The early mechanists posited something ‘incorporeal’ that would ‘pervade and support the universal machine of the world’ (Gassendi, 1649 I.IV.8), and they supposed it to be divine. Without going as far as that, it seems there may indeed be ghosts in the world machine, properties that are in some sense non-physical, and hidden from view.

Let us call this ignorance ‘Humility’. We shall not dwell unduly on its ghostly aspects, though we do return to this theme at the end. Our plan, in this essay, is to explain Humility and defend it, bringing out three ambiguities that are sometimes ignored. We shall compare some varieties of Humility. And we shall cast a critical eye on five responses to Humility. Some say the argument is incoherent. Some prefer a causal structuralist alternative. Some offer an anti-skeptical response. Some offer a panpsychist response, which embraces the troubling possibility that Humility admits. And some, finally, respond with a ghost-busting shrug of the shoulders: ‘Humility—who cares?’

These responses, we shall suggest, are no better than the problem they aim to fix. The argument for Humility is not incoherent. *Attempts by causal structuralists to do away with these intrinsic properties present an unintuitive alternative. Attempts to save knowledge of such properties are wrong when they say Humility is skepticism, extrava-

gant when they embrace panpsychism. And as for the shrug? Humility is not a trivial thesis, so let's face up to it. We're ignorant of the intrinsic natures of things, and have to make the best of it.

1.2. Humility: the Thesis, and an Argument Template

The thesis of Humility is straightforward enough. There is a fundamental, intrinsic aspect of the world, and it is beyond us. There are certain properties, intrinsic properties, that escape our cognitive grasp. Let us say provisionally that a thing's intrinsic properties are solely a matter of how that thing is, in itself; the intrinsic properties don't depend on anything external to the thing; the intrinsic properties of a thing are compatible with isolation or 'loneliness'; the intrinsic properties of a thing are shared by duplicates of the thing. The idea of an intrinsic property is thus a metaphysical idea, about a certain class of properties.⁹

*Humility is not a familiar kind of external world skepticism. It is compatible with our knowing a great deal about familiar observable physical objects of common sense—hands and dressing gowns, paper, and heating stoves. It is compatible with our knowing a great deal about less familiar, unobservable physical objects of science—quarks and gluons, fields and electrons. For the same reasons, Humility is not idealism. It is a kind of epistemic modesty, hence the label. There may be many aspects of the world that are wholly within our grasp, and they may be as real as you like: but they are not the whole deal. Something else is there, but we cannot reach it. There are thus two dimensions to—

Humility: the Thesis

⁹ We don't do justice to the literature, but see e.g. Kim (1982), Lewis (1983), Dunn (1990), Humberstone (1992), Vallentyne (1997), Langton and Lewis (1998), Yablo (1999), Marshall and Parsons (2001), and Weatherston (2001).

Existence: Fundamental intrinsic properties exist;
Ignorance: We don't know what the fundamental intrinsic properties are.

Some may find this formulation a little odd. Don't all properties 'exist', in Plato's Heaven, or its equivalent, if not here? Perhaps the point about existence could be better put as a point about instantiation, or about facts. The point is that the fundamental properties instantiated in our actual world are intrinsic properties; there are facts about how fundamental intrinsic properties are instantiated. For reasons partly to do with the Kantian heritage of the idea, for present purposes we prefer the formulation given in Existence above, but we would be happy for readers to substitute their own favored paraphrase. So much for the thesis of Humility.

Now the argument for Humility. This can take a number of different forms. If we were to sketch a common pattern, it might look like this.

Humility: an Argument Template

P1. *Epistemic Restriction to the Relational:* the most fundamental properties discoverable by experience are relational.

P2. *Metaphysical Commitment to the Intrinsic:* the most fundamental properties that exist are intrinsic.

C. *Humility:* the most fundamental properties that exist are intrinsic properties, not discoverable by experience.

That conclusion is, near enough, the thesis of Humility just outlined. It conjoins Existence and Ignorance: it says that fundamental intrinsic properties exist, and that we are ignorant of them—or at any rate, that we are ignorant of them, so far as *experience* can teach us. A bridge to the full thesis of Humility is strictly speaking made only if it is further allowed that experience is the *only* way we could find out which particular properties are instantiated in the world. We take this as given; so having noted this caveat, we'll leave

it behind for present purposes, and regard the conclusion of this template as, effectively, the thesis of Humility.¹⁰

Let us look now at those premises. There will be different interpretations of, and reasons for, the Restriction in the first premise. For Kant, the Restriction is there because of *receptivity*. Having receptive senses means, he thinks, that we can gain access only to relational, causal powers. For more recent philosophers, the Restriction is there because of *science*. *Science is limited in what it can tell us about any fundamental properties of the world other than the relational, dispositional ones. Note, though, that the Restriction on its own does not imply that we are missing out on anything. For all the Restriction shows, what there is and what we could discover may be in perfect harmony: the most fundamental properties we can discover are relational—and if those just *are* the most fundamental properties, no problem. It is only with the next premise that Humility gets going.

The next premise brings a metaphysical Commitment to intrinsic properties. There will be different interpretations of, and reasons for, this premise too. For Kant, the Commitment comes from a metaphysical intuition that substances, being substances, must have intrinsic properties. For more recent philosophers, the Commitment comes from a metaphysical intuition that dispositional properties, being dispositional, require intrinsic, categorical grounds.

These different versions of the second premise yield different versions of the conclusion, Humility. Perhaps the conclusion is that we are ignorant of the intrinsic properties of substances. Perhaps the conclusion is that we are ignorant of the categorical bases of dispositions. There is sufficient similarity, however, for us to speak here of a family of

¹⁰ *Whether there might be *a priori* knowledge of what the fundamental intrinsic properties are is explored at length in subsequent chapters.

arguments, yielding some version of the conclusion that we are ignorant of certain intrinsic properties—some version of Humility.

Since the thesis of Humility involves both Existence and Ignorance, it can be seen as a species of a wider genus of Humility theses, consisting of similar Existence-plus-Ignorance conjunctions, about a variety of possible domains. Some Humility theses will look substantive. Consider, for example, Theistic Humility, which has an illustrious pedigree.

Existence: God exists
Ignorance: We don't know what (most of) his or her properties are.

Perhaps God's Existence is supported by arguments about God as a first cause. Perhaps Ignorance is supported by arguments about the ineffability of the divine nature. Whatever the grounds, believers in Theistic Humility think we are missing out on something that matters. By comparison, some Humility theses will look trivial. Consider, for example, Paleofornic Humility, which has no pedigree, illustrious or otherwise:

Existence: Many ants existed at determinate locations a million years ago.
Ignorance: We don't know what (most of) those determinate locations were.

An elementary grasp of the evolutionary history of ants will be enough to yield Existence. An elementary understanding of the limits of paleontological investigation will be enough to yield Ignorance. Yet this sort of Humility is unlikely to keep us awake at night. For Kant, Humility is substantive; he thinks we are missing out on something. In this respect Humility is like Theistic Humility, and unlike Paleofornic Humility. We yearn for knowledge of things in themselves, in a way we do not yearn for the precise prehistoric location facts about ants. When it comes to things in themselves, we have an 'inextinguishable de-

sire to find firm footing somewhere beyond the bounds of experience' (A796/B824); but our aspirations, alas, are doomed.¹¹

2. *Three Ambiguities in Humility*

The Argument for Humility says the most fundamental properties 'discoverable by experience' are relational. This makes one wonder about the status of the Restriction to the Relational: is it supposed to be an empirical matter? The Argument also has a metaphysical Commitment to the Intrinsic, clearly an *a priori* matter: but how should we understand the 'intrinsic' to which it is committed? These questions raise three ambiguities, which we want to draw out and comment upon, if not wholly resolve.

2.1 *Restriction to the Relational: a priori or a posteriori?*

Sometimes the claim that we are restricted to relational properties looks like an empirical discovery. Armstrong cites the authority of physics: he says 'the properties of physical objects that physicists are prepared to allow them....show a distressing tendency to dissolve into relations'. Brian Ellis and Caroline Lierse (1994) offer what they call—

...the argument from Science. With few exceptions, the most fundamental properties that we know about are all dispositional. They are of the nature of powers, capacities, and propensities. (p. 32)

Humility's recent discussants often cite science in its support.¹² Physics has discovered the falsity of long-held metaphysical views about causal determinism; likewise physics discovers the falsity of long-held metaphysical views about physical intrinsic properties. On this

¹¹ See Langton (1998) Ch.1; *pace* Allison (1983).

¹² Russell (1927), Blackburn (1993), Hawthorne (2001), Ney (2007).

way of thinking, the philosopher, humble handmaid of science, willingly alters her steps to dance to the physicist's new tune.

This impression, we suggest, is misleading. The Restriction is an *a priori* matter, whether for Kantian or contemporary versions of Humility. It is *a priori* that we cannot discover these intrinsic properties through experience. The Restriction is a claim about what experience cannot reach, given *a priori* facts about the receptive nature of our knowledge, or about the nature of scientific theorizing, as we shall see as we go on.

2.2. 'Relational' and 'intrinsic': conceptual or metaphysical?

This Commitment to 'intrinsic' properties, this epistemic Restriction to 'relational' properties—are these claims about concepts or properties? Is Armstrong worried that the concept of 'charge' cannot be captured without talking about relations; or that charge is an extrinsic property? A distinction between concepts and properties is not always observed, and we ourselves speak loosely of 'relational properties' without adequately marking it. But relational concepts don't always match up to extrinsic properties. Your nose may be shaped like Julius Caesar's. Having that shape is an intrinsic property of your nose; having a nose with that shape is an intrinsic property of you. By any standard test for intrinsicness, the property of having a nose with that shape is an intrinsic property. You could have it, in the absence of other things. You could have it in a possible world where nothing else exists—not even Julius Caesar. Your duplicates have it. But there is something relational about it. Lloyd Humberstone suggests using the labels 'non-relational/relational' for a distinction operating at the level of concepts; and 'intrinsic/extrinsic' for a distinction operating at the level of metaphysically robust properties (1996). The distinction is not always easy to apply, but it has potential to yield different

varieties of Humility.¹³ Perhaps we are ignorant of the ‘intrinsic’ because our concepts of fundamental physical properties are relational. Or perhaps we are ignorant of the ‘intrinsic’ because the most fundamental properties we can access are extrinsic.

2.3 Commitment to the ‘intrinsic’: intrinsic or categorical?

Kant’s commitment to intrinsic properties is based on the idea that relational properties require substantial bearers, which must have some intrinsic properties or other. In like vein, apparently, Gareth Evans (1980) argues that there must be intrinsic, primary quality grounds for dispositional, secondary qualities. But Kant’s substantiality requirement is not the same as Evans’s categoricity requirement: Kant demands some intrinsic properties or other, Evans demands categorical bases for dispositions. Evans’ opinion belongs to a contemporary orthodoxy about the metaphysics of dispositions.¹⁴ So here we have two rather different routes to a Commitment to ‘intrinsic’ properties.

Naturally this has implications for our interpretation of Humility. Is Armstrong worried that a fundamental property like charge is not intrinsic, or that it is not categorical? The fear appears to be that charge is merely dispositional. Similar misgivings are expressed by P.F. Strawson (1980), in responding to Evans:

It seems that our search for the properties of the categorical base must finally lead us to the undeniably theoretical properties which physics assigns to the ultimate constituents of matter—perhaps force, mass, impenetrability, electric charge. But these properties themselves seem to be thoroughly dispositional in character.... [T]he categorical base is still to seek (p. 280).

And by Simon Blackburn (1993):

[A]ny conceivable improvement in science will give us only a better pattern of dispositions and powers. That’s the way physics works...[the intrinsic

¹³ Allais (2007), Langton (2007), Ney (2007).

¹⁴ Jackson *et al* (1982), Prior (1985).

sic ground of these powers] will remain, therefore, entirely beyond our ken, a something-we-know-not-what identified only by the powers and dispositions it supports (p. 256).

Dispositional properties are traditionally contrasted with ‘categorical’ properties, a contrast which has been much debated. Dispositions, unlike categorical properties, are thought to support counterfactuals about their manifestations.¹⁵ But not always: witness the possibility of ‘finkish’ and other inconvenient dispositions, which render counterfactuals false.¹⁶ And not only: witness the possibility of categorical properties likewise supporting counterfactuals.¹⁷ But what about a contrast between dispositions and *intrinsic* properties?

Dispositional properties are often brought under the ‘relational’ side of a distinction between intrinsic and relational properties, a practice we find reasonable enough. Typically, if a property like charge is understood as a disposition, it will be conceptually relational: it’s part of the concept of charge that something has it just in case it would relate to other things in certain ways. Perhaps that’s what Armstrong means when he worries that charge will dissolve into ‘relations’. Many dispositional properties are, then, conceptually relational. (Not all: think of a time bomb’s disposition to explode.)

That’s not to say dispositions are extrinsic, for as we have noted, these are not the same. Are they extrinsic too? Some philosophers think dispositions are intrinsic, so a possible view is that while a dispositional concept is relational, the property is intrinsic. After all, my glass can be fragile, even if it’s the only thing in the universe. Fragility is compatible with isolation or ‘loneliness’. My glass can be fragile, independently of anything outside it—though to be sure, its fragility implies much about how it *would* relate to other

¹⁵ Jackson, *et al* (1982), Prior (1985), Mumford (1998), Holton (1999).

¹⁶ Martin (1994), Bird (1998).

¹⁷ Mellor (1983).

things in certain circumstances. Fragility is shared by duplicates—at least in worlds that have the same laws of nature. This latter caveat, however, is significant. If we apply a duplicate test more strictly, fragility is not after all intrinsic: in worlds with different laws, my glass will simply bounce. If we apply an isolation test more strictly, fragility is not intrinsic: fragility is not compatible with isolation *and lawlessness*.¹⁸ By these stricter standards, then, dispositional properties are extrinsic.

To sum up, dispositional properties can be regarded as ‘relational’ in two ways: first, their concepts typically involve relations to other things; second, on strict standards of metaphysical intrinsicness, they typically count as extrinsic properties. So ignorance of ‘intrinsic’ properties may result from a Restriction to relational, extrinsic, dispositional properties.

3. *Kantian and Ramseyan Humility*

3.1. *Kantian Humility*

Kant’s famous epistemological conclusion is drawn against a less famous metaphysical backdrop: so ignorance of ‘things in themselves’ is really ignorance of intrinsic properties.¹⁹ This is admittedly a controversial interpretation of Kant.²⁰ But we shall assume rather than defend it here. This metaphysical backdrop, with its distinction between classes of properties, supplies one premise of our template argument for Humility:

Metaphysical Commitment to the Intrinsic: The most fundamental properties that exist are intrinsic properties.

Here is early expression of it, with its philosophical motivation.

¹⁸ Langton and Lewis (1998), Langton (1998).

¹⁹ Kant (1781/1787), Langton (1998).

²⁰ Falkenstein (2001), van Cleve (2002), Ameriks (2003) ch. 5, P.F. Strawson (2003), Allison (2004) ch. 1, Breitenbach (2007), Allais (2007).

Besides external presence, i.e. relational determinations of substance, there are other, intrinsic, determinations, without which the relational determinations would not be, because there would be no subject in which they inhered. (Kant 1756)

Kant envisions a ‘physical monadology’, positing non-extended substances, or monads, whose ‘relational determinations’—elsewhere described as physical forces of attraction and repulsion—interactively constitute the physical world. Kant here expresses the substantiality requirement just described. Relational properties or forces must be ascribed to a substance, namely the monad, since they require a bearer. The substance in turn must have some other properties, *intrinsic* properties, since otherwise it wouldn’t be a substance. If a substance is independent of other things, it needs properties independent of other things.

A general inference to intrinsic properties appears again at different points in the

Critique of Pure Reason:

The understanding, when it entitles an object in a relation mere phenomenon, at the same time forms, apart from that relation, a representation of an object in itself. (B307)

Concepts of relation presuppose things which are absolutely [i.e. independently] given, and without these are impossible. (A284/B340)

Substances in general must have some intrinsic nature, which is therefore free from all external relations. (A274/B330)

These passages express the same Commitment to intrinsic properties. They point to a conception of substance as a bearer of intrinsic properties, and infer the existence of intrinsic properties via the thought that substances need properties appropriate to their independent nature. Note that the contrast between ‘phenomenon’ and ‘in itself’ is made to match up with a contrast between ‘relational’ and ‘intrinsic’. Since Kant famously thinks

we have knowledge only of ‘phenomena’, this brings us to the other premise in our template Argument for Humility.

Epistemic Restriction to the Relational: the most fundamental properties discoverable by experience are relational.

We have knowledge only of phenomena—things ‘in a relation’. Are phenomena ‘relational’ in the sense of conceptually relational, or metaphysically extrinsic? They are at least the former; and there may be room for both interpretations.²¹ Given Kant’s isolation thought experiment, we take it that they are also the latter: phenomenal properties are extrinsic.

It is an on-going theme in Kant that the realm of phenomena consists entirely of ‘relations’:

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. (A285/B341)

Matter is *substantia phaenomenon*. I search for that which belongs to it intrinsically in all parts of the space which it occupies, and in all the actions it performs...I have nothing that is absolutely intrinsic, but only what is comparatively intrinsic, and that is itself again constituted by external relations ...The transcendental object which may be the ground of this appearance that we call matter is a mere something... (A277/B333)

Kant thinks we can discover through experience (including scientific investigation) a great deal about phenomenal substance, or matter; but that phenomenal substance, namely matter, is ‘constituted by relations’.

It seems likely that Kant’s version of this Restriction is actually stronger than stated above: it’s not just that *fundamental* phenomenal properties are extrinsic, but *all* phenomenal properties are extrinsic. We ordinarily take familiar shape properties to be intrinsic, but Kant thinks that, being part-dependent, they are not (A339/A283) (see

²¹ Allais (2007), Langton (2007), Ney (2007).

Langton (1998) Ch. 2 for the relevant notion of intrinsicness). The phenomenal world is, for Kant, relational all the way down.

We have noted that for Kant the Restriction has its source in the receptivity of the senses; but there is more to the story. Kant, like many philosophers, is persuaded of the contingency of the connection between intrinsic properties and causal powers. He argues in an early paper that it is possible for God to create an isolated substance, with its intrinsic properties, without thereby creating any causal powers at all. Intrinsic properties, on their own, do not entail causal power. He says God needs to ‘add’ something to a substance, with its intrinsic properties, if that substance is to have the power to interact with other substances. He draws from these reflections about contingency a conclusion that many philosophers would reject, namely that the intrinsic properties are causally inert:

A substance never has the power through its own intrinsic properties to determine others different from itself, as has been proven. (1756, 415)

A path to Kantian Humility is now plain. A Commitment to the Intrinsic is already in place: given that there must be substances, there must be bearers of intrinsic properties. A Restriction to the Relational is also in place, based, as we see, on considerations that are wholly *a priori*. We are receptive creatures, who must be affected by something if we are to have knowledge of it. If we are not affected by intrinsic properties because they are inert, then we can have no knowledge of intrinsic properties. Intrinsic properties exist; but we don’t know what they are. ‘The substantial is the thing in itself and unknown’ (R5292); ‘we have no insight whatsoever into the intrinsic [nature] of things’ (A277/B333). This, we propose, is Kant’s route to Humility.

3.2. Ramseyan Humility

Whether Kantian Humility is right as an account of Kant, something like it is just plain right, according to Lewis (2009). Many of us will reject Kant's thought that the intrinsic properties are causally inert, but even so we must confront the news, sad or otherwise, that we are ignorant of things in themselves:

Being the ground of a certain disposition is only one case among many of role occupancy. There are a variety of occupied roles, among them nomological roles and others as well. Quite generally, to the extent that we know of the properties of things only as role-occupants, we have not yet identified those properties. No amount of knowledge about what roles are occupied will tell us which properties occupy which roles (p. 204).

Lewis's idea clearly has much in common with the earlier quoted opinions of Russell, Maxwell, Armstrong, Evans, Strawson and Blackburn. The background metaphysics here distinguishes between dispositions and categorical properties, between roles and realizers, and this supplies Lewis's version of the metaphysical premise:

Metaphysical Commitment to the Intrinsic: The most fundamental properties that exist are intrinsic, or categorical, properties.

Given that there are roles, there must be something to realize those roles; given that there are dispositional properties, there must categorical bases to those dispositions.

An argument about Ramsification then yields Lewis's version of the key epistemological premise.

Epistemic Restriction to the Relational: *only the identities of fundamental relational properties are discoverable by science.

This Restriction follows in an entirely *a priori* way from the nature of theorizing itself. We have here a philosophical argument about science, not an empirical argument from science. The idea is this. We find out about the fundamental properties of the world via our scientific theories. Suppose we had a grand, final theory which names our fundamental active properties. Such a theory will specify how each thing causally relates to everything

else our theory talks about. Call our grand theory ‘T’. And suppose we have a language, ‘O’, rich enough to express our observations. The Ramsey sentence of T will replace names in T with existentially quantified variables; it will say that T has at least one actual realization; and it will imply the O-language sentences that are theorems of T. Predictive success for T will be predictive success for the Ramsey sentence. And here comes the crunch. *If* our theory T has more than one possible realization, observation won’t tell us which realization is actual. Humility follows from this. We don’t know what the realizer properties are.

Does the theory have more than one possible realization? Yes, because of the contingent connection between causal role properties, and realizer properties. Lewis offers a ‘permutation argument’ for this possibility. Suppose our theory names two fundamental intrinsic properties, F1 and F2. Given the fact of contingency, there is a possible world where these two properties are swapped around. The laws governing F1 there are the same as the laws governing F2 here, and *vice versa*. This yields one different possible realization of T. He offers an additional ‘replacement argument’ for the possibility. Our grand theory will leave out ‘idler’ properties (if any), namely instantiated but inactive properties; it will leave out ‘alien’ properties, uninstantiated in the actual world. There will be a possible world like ours, except the fundamental properties F1 and F2 that are T’s actual realization are replaced by properties that to us are idlers, or aliens. This yields another different possible realization of T.

Lewis’s argument goes much further than this, in directions we can’t take up here.²² And questions remain about whether, on this account, the fundamental properties

²² They will be examined in more detail in Chapter Two.

to which we have access are conceptually relational, or extrinsic.²³ But for readers with reservations about dark eighteenth century metaphysics, Lewis's argument may at least show that Humility is closer than you think.

4. *Five Responses to Humility*

If we accept some version of the argument for Humility, we must accept that there are intrinsic aspects to the world that are forever beyond our grasp. Suppose one does not wish to accept this uncomfortable conclusion. How should one react? We are going to outline five possible responses.²⁴ Most are interesting, some are extravagant; but none, we suggest, is more attractive than Humility itself.

4.1 . *An Accusation of Incoherence*

According to Alyssa Ney, there is a deep tension in the argument for Humility. To put her point in a nutshell: the argument affirms a strong and optimistic physicalism, and denies it at the very same time. Her paper offers a refreshingly clear and robust critique, but it is, we shall argue, mistaken. She captures the argument for Kantian Humility in the following terms. We add our labels, in order to bring out the relationship to the argument template proposed here.

Restriction to the Relational. (a) We learn from current science that all fundamental properties are extrinsic. (b) There is no scientific reason to posit intrinsic properties that would serve as the grounds of these properties.

Commitment to the Intrinsic. But substances do have intrinsic properties, since it is part of their nature that they must.

²³ Ney (2007).

²⁴ For some other helpful efforts to outline options, see Schaffer (2005), Hawthorne (2001), Ney (2007), Locke (2009).

Humility. There are intrinsic properties of which we cannot have knowledge.

The argument for Humility first says that science discovers the most fundamental properties, and finds that they happen to be relational, or (better) extrinsic. It then says that metaphysics discovers there must be other fundamental properties, and finds that they must be intrinsic. The first step says the fundamental properties are extrinsic, because science says so. The next step says the fundamental properties are intrinsic, because metaphysics says so. The first step assumes a strong and optimistic physicalism, according to which science discovers the fundamental properties, on which all other properties supervene. The second step denies that optimism, and pulls the rug out from under the feet of the first. The argument is, she concludes, incoherent.

But Ney is mistaken. The argument does indeed depend on a Restriction to relational properties, which says the most fundamental properties we can know about, via experience, are relational, or extrinsic, properties. But this is not a strong and optimistic physicalism. First, as we have seen, it needn't be a point about *science* at all. For Kant, the Restriction follows from some abstract facts about the *receptivity* of our knowledge of the world. Second, even if we do make science the starting point, it is still going to be an *a priori* matter about what science can in principle discover, not (as Ney suggests) a matter of what 'current science' in fact turns up. Finally, and most importantly, it needn't say that the fundamental properties posited by science are the fundamental properties *tout court*. It is only this reading which creates a conflict with the Commitment to intrinsic properties.

See how very strong Ney's physicalism is. Science (a) tells us what the fundamental properties of science are; (b) says that they are relational, or extrinsic; *and* (c) says the fundamental properties of science are the fundamental properties, *tout court*. It is the third clause which makes it so ambitious, and creates the conflict with the next, metaphysical,

step of the argument. But we needn't assert the third clause—needn't say that the fundamental properties described by science just *are* the fundamental properties. The idea is not that 'we learn from current science that all fundamental properties are extrinsic', as Ney puts it. The idea is rather that 'all the fundamental properties we in principle learn about from science are extrinsic'. In short, then, despite its great interest, Ney's critique fails. She finds a contradiction in the argument, only because she put it there.

4.2. *A Causal Structuralist Alternative*

You might reject the argument for Humility by denying the metaphysical Commitment to intrinsic properties. In so doing, you would deny the thesis of Humility by denying Existence: there simply *are no* fundamental intrinsic properties—at least, no fundamental intrinsic properties that are *distinct* from the relational properties. It is possible to find a version of this response in certain (though not all) developments of causal structuralism.²⁵

We saw that there can be different philosophical motivations for the Commitment: Kant's requirement that substances have some intrinsic properties or other; Evans' requirement that dispositions have categorical bases; Lewis's requirement that role properties have realizers. Might one remain unmoved by these metaphysical considerations? That is what the causal structuralist has to do.

Perhaps it is possible. It's worth noting that Kant's own theory of physical force was adapted in just this direction by pioneers of field theory. Kant's physical forces were ascribed to monads, endowed with intrinsic properties. Why not liberate forces from substances, and posit simply the 'relational determinations' or forces, existing without any

²⁵ See Sydney Shoemaker (1980), Alexander Bird (2007), John Hawthorne (2001), James Ladyman (2002), and Ann Whittle (2006), among others.

‘intrinsic determinations’? Michael Faraday (1844), influenced by Kantian natural philosophy, seems to have done just this (pp. 290-1; for Kant’s influence, see Williams 1965).

Suppose, he said, we distinguish a substantial particle *a*, from its powers or forces *m*.

What we empirically encounter must be simply—

the properties or forces of the *m*, not of the *a*, which, without the forces, is conceived of as having no powers. But then surely the *m* is the *matter*....To my mind...the *a* or nucleus vanishes, and the substance consists of the powers, or *m*; and indeed what notion can we form of the nucleus independent of its powers: what thought remains on which to hang the imagination of an *a* independent of the acknowledged forces? Why then assume the existence of that of which we are ignorant, which we cannot conceive, and for which there is no philosophical necessity? (pp. 290-1)

What is Faraday doing here? He accepts the epistemological Restriction to relational powers, and takes it as a reason to retreat from any Commitment to fundamental intrinsic properties. The only fundamental properties we know about through experience are the relational, or extrinsic, ones: so that’s what there are. More recently John Hawthorne (2001) has unconsciously echoed Faraday’s strategy and his final ringing words:

Science seems to offer no conception of negative charge as something over and above ‘the thing that plays the charge role’. If there were a quiddity that were, so to speak, the role filler, it would not be something that science had any direct cognitive access to, except via the reference fixer ‘the quiddity that actually plays the charge role’. Why invoke what you don’t need? (p. 368)

Faraday’s denial of a substantial ‘nucleus’ underlying powers might not be quite the same thing as Hawthorne’s denial of a ‘role filler’, but the line of thinking is similar.

Hawthorne, for his part, is not inventing field theory, but taking seriously Shoemaker’s proposal that there is, in some sense, nothing more to a property than its causal profile—no essence or ‘quiddity’ of the property independent of its causal profile.²⁶ And adopting this approach has some promise of enabling one to deny there must be categorical prop-

²⁶ Shoemaker (1980).

erties distinct from dispositional properties; and hence deny this version of the Commitment to intrinsic properties.

There are many ways to understand the causal structuralist project, to which we cannot do justice here.²⁷ But the causal structuralist project is widely advertised as offering epistemological advantages²⁸ Does it indeed present a way to avoid Humility?

Not entirely. Suppose we distinguish a thin and a thick causal structuralism. A thin structuralism might claim that there are no fundamental intrinsic properties, because the fundamental properties are bare dispositions. This avoids Humility—but is open to traditional objections to bare dispositions.²⁹ A thick structuralism might claim that the fundamental property is intrinsic and categorical, but essentially associated with a particular causal role. Suppose we can make sense of this proposal.³⁰ Would this thick causal structuralism avoid Humility?

No, for it has its own version of the Commitment to intrinsic properties, which is what provides the step to Humility. To be sure, Lewis's permutation argument for Humility will not go through, since there is no possible world where we have *this* intrinsic, categorical property associated with a *different* relational disposition, or *vice versa*. But there remains an unknowable something, all the same. There is something there, that is intrinsic, and categorical, but we do not know what it is. Telling us that it is essentially connected to a causal role does not tell us what it is in itself. An analogy: suppose it is essential to A that her parents are B and C. Have I told you who A is, in herself, when I have told you that her parents are B and C? It seems not. Likewise, it seems, for the causal structuralist

²⁷ Bird (2007), Ladyman (2002), Ellis and Lierse (1984), Schaffer (2005), Whittle (2006).

²⁸ Shoemaker (1980), Hawthorne (2001), Schaffer (2005), Whittle (2006), Ney (2007).

²⁹ Blackburn (1993); but see Holton (1999).

³⁰ Tests for intrinsicness are hard to apply here, as defenders allow; see Whittle (2006).

account of properties. Much more needs to be said here.³¹ But for now let us rest with the thought that causal structuralism might well face its own version of Humility.

4.3. *An Anti-Skeptical Alternative*

Humility is about ignorance, so it is tempting to compare it to skepticism. Suppose you treat ignorance of intrinsic properties as if it were just a kind of skepticism, and respond as you respond to the skeptic: we know these intrinsic properties in the same way we know any other properties. You deny the argument for Humility, by rejecting the epistemic Restriction to relational properties. In so doing, you would deny the thesis of Humility by denying Ignorance: there are fundamental intrinsic properties, and we *can know* after all what they are. We find this response most prominently in the work of Jonathan Schaffer (2005); it is taken seriously, at least as *ad hominem*, by Langton (2004).

On this way of thinking, the direct realist should say she directly perceives the fundamental intrinsic properties; the contextualist should say she ‘properly ignores’ the possibilities cited by Lewis in ‘Ramseyan Humility’; and in general, for each favorite response to the skeptic there will be a favorite response to Humility. We cannot assess this approach adequately here, though we are dubious.³² *But we want to insist that even if Humility has something in common with skepticism, it is not run-of-the-mill external world skepticism. Ordinary life is incompatible with a literal commitment to skepticism; it is not incompatible with a literal commitment to Humility. We can believe Humility, and get on with life without resort to Humean ‘carelessness and inattention’.

³¹ A closer look at causal structuralism takes place in Chapter Three.

³² Chapter Two examines this criticism in more detail.

We've seen how the anti-skeptical response tries to block the argument for Humility by rejecting the epistemic Restriction to relational properties; and to deny Humility by rejecting Ignorance. Let's turn now to another, more adventurous attempt to achieve the same result.

4.4. *A Panpsychist Alternative*

Suppose you concede we don't have knowledge of these intrinsic properties in the usual way, via our theories, but we know about them a different way. We know them the way we know mental, or experiential, properties—because *that's what they are*. We have immediate acquaintance with psychic properties, and we take properties like those to be the fundamental ones. This route leads to *panpsychism*, near enough.

Kant himself dabbled with panpsychism, speculating at one point that the intrinsic properties of the world are mental:

It could...be that the something which lies at the ground of external appearances, which affects our sense so that our sense receives representations of space, matter, shape, and so on—it could be that this something... is at the same time the subject of thoughts. (A358)

Having taken this Leibnizian panpsychism seriously, Kant then distances himself, retreating to a more cautious Humility:

Without allowing these hypotheses, however, one can note the following general point: [...] if we compare the thinking 'I' not with matter but with the intelligible which lies at the ground of the external appearance we call matter, we cannot say that the soul is intrinsically any different from it, since we know nothing at all of it. (A360)

Panpsychism is no mere historical curiosity. It is receiving something of a revival.³³ Its proponents needn't believe that the properties at the fundamental level are mental in the full, conscious way that applies to our own minds. But the properties are

³³ Russell (1927), Maxwell (1978), Foster (1982), Chalmers (2003), G. Strawson (2006), Stoljar (2001, 2006).

supposed to be psychological, or ‘proto-psychic’, all the same—comparable in some respects, perhaps, to the ‘petite perceptions’ posited by Leibniz as being among the intrinsic properties of monads. Panpsychism is welcomed as offering a solution not just to the problem of Humility, but to the problem of consciousness. Ascribing ghosts to the world machine is thought to help us understand how conscious beings can be ghosts in bodily machines.

According to Humility, there are fundamental properties which are, in a minimal sense, not physical, given that physics cannot reach them; if we work with a ‘theory-based’ notion of ‘physical’, such properties are non-physical.³⁴ (We take the contrasting ‘object-based’ concept of ‘physical’ is too liberal, since it would count Berkeley and Leibniz as physicalists; there is admittedly a large debate here about the meaning of ‘physical’.) Panpsychism goes beyond this minimal sense of ‘non-physical’: the fundamental properties are non-physical because they are literally psychological. It is often assumed that psychological properties are ‘intrinsic’: philosophers discuss the ‘intrinsic’ quality of experience and wonder whether there is a place for it in functional and physical accounts of the mind. If such properties are intrinsic (there is room for doubt here), then there are some fundamental intrinsic qualities with which we have acquaintance. So the panpsychist’s strategy can look appealing: why not let these properties, or something like them, do the job we need intrinsic properties to do? Thus do qualia shift their shape, moving from the guise of thorny problem for philosophy of mind, to surprising solution to the problem of Humility.

The panpsychist alternative presents an exciting proposal—rather too exciting, we think. Evaluating it properly would take us too far afield, but for now we want to say that

³⁴ Stoljar (2001).

it seems as extravagant as anything Leibniz thought up; and we doubt it can greatly help the philosophy of mind, though this is altogether another issue. To admit the theoretical possibility of panpsychism is one thing, and Humility admits this; to embrace it with open arms is quite another.

4.5. *The Shrug: Humility—who cares?*

You might accept that Humility is true, and say it doesn't matter. We are ignorant of fundamental intrinsic properties—and *so what?* There is nothing 'ominous' about such ignorance. There are many things we can't know about: perhaps we can't know exactly where all the ants were standing, exactly 30 million years ago; perhaps we can't know what the fundamental intrinsic properties of things really are. But why worry?³⁵

Many discussions of Humility proceed on an assumption that it makes us ignorant of trivial properties, comparable to the haecceities of individuals: we are ignorant of a property's identity tag, so to speak, which it keeps from world to possible world, regardless of the dispositions it is associated with it. We suggest on the contrary that Kant is right on this question, and the shruggers are wrong. If there are fundamental intrinsic properties, and we don't know what they are, then we don't know that they are only trivial, identity-involving properties. All that we know is that they are intrinsic, or categorical. Kant says we cannot rule out the possibility that the fundamental intrinsic properties are thoughts; Humility cannot rule out panpsychism, though it does not embrace it. But 'not knowing what the properties are' means, not knowing what they are.

³⁵ Lewis (2009) denies Humility is 'ominous'; see also Whittle (2006), Hawthorne (2001), Schaffer (2005), Ney (2007), and Locke (2009).

So, to conclude, we admit ghosts in the world machine, properties that are non-physical, in the minimal sense that physics cannot find them; and we can't rule out their being non-physical in the more troubling sense that panpsychists embrace. Humility is not to be shrugged off; but we can live with it.

CHAPTER TWO MOVING BEYOND RAMSEYAN HUMILITY

1. Introduction

Having set the stage for Categorical Humility, I now turn to developing my position, doing so in the context of contrasting it to its nearest ancestor, Ramseyan Humility. Recall that all Humility theses tell us there is some fundamental aspect of the world that we lack knowledge of. They have two parts: an *existence* claim, stating that there is in fact this portion of the world, and an *ignorance* claim, stating that knowledge of it escapes our epistemic grasp. I begin in Section 2 by rehearsing the metaphysical commitments needed to establish the existence claim that is part of Categorical Humility. I say ‘rehearse’ because, as will become apparent, the commitments in play are much too substantive to be adequately defended in the space of this chapter. I argue that there is a *prima facie* case for all these commitments and that they share wide appeal. This section also makes explicit what I have so far only alluded to; namely, it explains why Lewis’s Ramseyan Humility gives us an entirely benign kind of ignorance. Section 3 takes up the ignorance claim that is part of Categorical Humility. Here is where I part ways with Lewis, and in doing so, show why my account avoids the criticisms leveled against his own view.

2. Existence

2.1. Categorical Humility as a Kind of Functionalism

It is helpful to start by characterizing the position I motivate as a kind of functionalism involving the fundamental categorical properties of the world. Consider first a functionalism that’s more familiar—functionalism about the mind. One of the main motivations for being a functionalist about the mind is the intuitive plausibility of multiple realizability.

That's roughly the thought that it's metaphysically possible for different types of substances—brains, machines, even ectoplasm—to have the same mind. Functionalists come in different stripes and therefore have different ways of spelling out what this amounts to at the level of properties, but one common way of doing so is as follows. Mental properties are role properties, which amounts to them being dispositions, understood as second-order properties. The belief that it's cold outside, for instance, is the property of having some property that, roughly and among other things, causes us to put on a coat when accompanied by the desire to go outside and the desire to stay warm, and that causes us to infer that it is not hot outside, and that causes us to say 'It's cold!' when asked how it feels upon stepping outdoors, and so on. For us, the most likely property that realizes or plays this role—the most likely property that is the categorical grounds of this disposition—is some neurological property of the brain. But there are other properties that could have played this role; there are worlds where certain machine properties, or Martian brain properties, or even ectoplasm properties, play the same role. These are worlds where there's an entity that has the same dispositional property that we do—the belief that it's cold outside—but that has a different categorical base for that disposition. The multiple realizability of mental properties, on this way of seeing things, amounts to the possibility of different kinds of properties being the categorical grounds of the dispositions we take to be the mental properties.

Similarly, Categorical Humility embraces the idea that the fundamental physical roles can be multiply realized. The thought is that there are possible worlds with the same particles possessing the same causal profiles—the same fundamental dispositions—as in the actual world, but where the categorical grounds of these dispositions are different. Consider such worlds to be structurally identical to our own. For example, let W_1 be

structurally identical to the actual world in that it contains protons and electrons that behave exactly as they do here. The difference is that in W1, positive charge doesn't ground the relevant causal profile associated with protons, and negative charge doesn't ground the relevant causal profile associated with electrons. In W1, they've 'switched'; that is, positive charge is the categorical base for the relevant causal profile associated with electrons and negative charge is the categorical base for the relevant causal profile associated with protons. In another possibility, W2, positive and negative charge have been 'replaced'; that is, entirely different properties—'alien' properties—not realized in the actual world are the relevant categorical grounds. Both W1 and W2 are metaphysical possibilities on this view.

The extent to which one finds these possibilities intuitively plausible is the extent to which one is predisposed to find the metaphysics behind Categorical Humility persuasive, and Ramseyan Humility as well, for that matter, since the picture I've just presented is entirely in line, so far, with the one Lewis endorses.³⁶ Where Ramseyan Humility and Categorical Humility part ways on this front has to do with which properties are considered to be eligible as realizers across possible worlds of the fundamental physical roles. Specifics are discussed in Section 2.2.3. At the moment, two things need to be addressed before proceeding. First, the case for Categorical Humility does not rest solely on the intuitive plausibility of the picture I've just painted. I hope one does find it *prima facie* persuasive as it stands, but even if not, I show below that it falls out of a series of appealing metaphysical commitments.

Second, although this section is devoted to metaphysics, I want briefly to use the

³⁶ Lewis (2009) thinks that both modal realists and modal actualists will find switching to be possible, but only modal realists have the resources to accommodate possibilities involving replacement. I remain agnostic on this point in what follows.

functionalist idea just presented to illustrate how the claim of ignorance that is part of the thesis of Categorical Humility arises. This is where the link between functionalism about the mind and Categorical Humility comes apart. Regarding the former, those of us sympathetic with the view are encouraged that further scientific investigation will reveal just which categorical properties actually ground mental properties like beliefs and desires. Our epistemic resources aren't exhausted once we've catalogued all the mental roles there are to play, in other words. But Categorical Humility maintains that once we've catalogued the fundamental physical roles there are to play, we lack the resources to discover certain things about what in fact plays them. In this case, further scientific investigation won't help, since the idea is that our best science has already provided us with all that it can. And while *a priori* deliberation might provide some further knowledge, it too will come up short in important respects. That's the idea. The details I reserve for Section 3.

2.2. *The Metaphysics Behind Categorical Humility*

2.2.1. *Dispositions Have Distinct Categorical Bases*

I now rehearse the commitments needed to develop the metaphysical picture presented in 2.1. And I begin by calling attention to a few assumptions I've been making so far. The most glaring is that I have been proceeding as though there is a fundamental level of the world. Schaffer (2003) criticizes this idea. And if one is convinced that there isn't a fundamental level of the world, one will have little tolerance for any Humility thesis whatsoever. But the idea that world doesn't contain a fundamental level is by no means a popular one, and so I set it aside to be addressed at a different time. I also acknowledge that I have been talking as if the fundamental particles are bits of matter. I do this for ease of exposition only, ultimately remaining agnostic about whether these particles are best

thought of as bits of matter, or as spacetime points, or as something else.

That said, Categorical Humility countenances our world as having a fundamental level that contains particles with causal profiles—dispositions—and with distinct categorical properties that causally ground these profiles. Supposing it's uncontroversial that these fundamental particles have these dispositions, why think they have distinct categorical grounds?

Here is a natural way of thinking about dispositions in general. To claim that a glass is fragile, for example, is to attribute to the glass the property of being disposed to break under certain conditions. And for the glass to be disposed to break under certain conditions is for it to have some property or properties that will cause it to break when these conditions obtain. The categorical bases of dispositions, then, are the causal grounds of dispositions, which, roughly following Elizabeth Prior, Robert Pargetter and Frank Jackson (1982), are the property or properties causally responsible for the manifestation of the disposition under the relevant conditions. Continuing with the example, the causal grounds of the glass's fragility are the molecular properties causally responsible for it breaking when, for instance, it drops from a high shelf onto a marble floor. We think that dispositions have categorical bases, on this line of reasoning, because we think that there are properties that will cause the disposition to be manifested under certain conditions. And we think that these properties are distinct from the disposition itself, because it's unintuitive that the disposition causes its own manifestation. It's not the glass's fragility—its disposition to break—that causes it to break. (It even sounds strange to respond to the question, 'Why did the glass break?' with 'Because it's disposed to break'.) Rather, some other property or properties cause the glass to break and thereby reveal its fragility. Understanding dispositions this way shouldn't be taken as committing one to the claim that

dispositions can never be causes. That's an open question; indeed, it seems they can be causes. The glass's fragility might cause me to treat it with care. Additionally, the glass's molecular properties, which are the causal grounds of its fragility, might themselves be dispositions. The idea is simply that there are properties other than the disposition itself that cause it to be manifested under the appropriate circumstances. And this is the disposition's distinct categorical base.

No doubt one can raise worries with the account of dispositions I've just sketched. Some may push back on the idea that dispositions can't cause their own manifestation under the appropriate conditions. Why can't the fragility of a glass cause it to break? It's plausible that for a picture to be funny is for it to be disposed to cause people to laugh when they see it. If I look at a Gary Larson cartoon and laugh and someone asks me why I'm laughing, it seems perfectly fine to say that I'm laughing because the picture's funny. So maybe dispositions are part of the causal story of their own manifestations. Even so, we also think that they aren't the whole story. The glass's molecular structure is surely a cause of it breaking when it is dropped from the shelf. If its fragility is also a cause in this case, then either the glass's fragility is identical to its molecular structure, or these are two distinct causes. The former is an unattractive option, though, since lots of things with different molecular structures can be fragile.

If all that is right, then we should understand the distinct categorical grounds of a disposition to be the property or properties other than the disposition itself that are causally responsible for the disposition to manifest itself under certain conditions. So understood, must *all* dispositions have distinct categorical grounds? The fragility of a glass certainly does, the funniness of a picture certainly does, the soporific quality of a drug certainly does, but might we be rash in generalizing from these ordinary examples that all

dispositions have distinct categorical grounds? Might not some dispositions be the causes of their own manifestations, *and that's it?*

This idea of 'bare dispositions' was already discussed in Chapter One. It is *prima facie* unattractive for at least two reasons. First, it rejects an appealing unity in our account of dispositions; if some have distinct categorical bases and others don't, then we need to know why the special cases are special, and it doesn't seem obvious what that story would be. If, for example, it is suggested that all dispositions but the most fundamental ones have distinct categorical bases, then we need to be told why being the most fundamental makes those dispositions, well, fundamentally different. And of course the answer best not be simply because it avoids certain problems, for instance, Humility concerns. So the better approach, if one wants to go in this direction, is to maintain that contrary to the reasoning presented above, all dispositions are bare. This, however, is an exotic alternative,³⁷ and thus sufficient reason for the moment to put it aside without further consideration.

2.2.2 The Relationship Between Dispositions and Their Categorical Bases is Contingent

There is good reason, then, to take dispositions as having distinct categorical bases, which are understood as being the properties other than the disposition itself that are causally responsible for the disposition to be manifested under certain conditions. (From here on out, I'll drop 'distinct' when talking about these categorical grounds.) The next step in forming the metaphysical picture needed to motivate Categorical Humility is achieved by denying that there's a necessary connection between the fundamental dispositions and their categorical bases.

³⁷ Nevertheless, as was shown in Chapter One, it does seem as though Kant held something like this view; at least he didn't seem to think that dispositions needed to be causally grounded on other properties.

Why think this? Following Lewis (1986, 1994, 2009)³⁸, one promising avenue to pursue is to consider what we take the modal status of the laws of nature to be, place that verdict alongside our intuitions about what's possible regarding the fundamental particles and their categorical properties, and see if they connect in an interesting way. Concerning the laws of nature, there's a strong intuition that they are contingent; they could have been other than what they are. If it's an actual law that all the Fs are Gs, this intuition tells us that there's a possible world where it's not the case that all the Fs are Gs. And concerning the fundamental particles and their categorical properties, there's a strong intuition that particles having these properties could have behaved other than the way they in fact do. It seems possible for positively charged particles to be attracted to each other rather than to repel each other. Now suppose, plausibly, that the laws of nature supervene on the regular behavior of fundamental particles. This means that in a world where protons with their positive charges are attracted to each other rather than being repelled by each other, the laws of nature are different, and thus, protons there have different dispositions than they do in the actual world. That's because dispositions are the 'shadows' of the laws of nature. Why is the proton disposed to behave a certain way in the presence of other protons? Because it's a law of nature that it be so disposed. Why is it a law of nature? Because of the way protons regularly behave.

It follows from this line of reasoning that there are possible worlds with the same particles (or duplicates) as the actual world has, instantiating the same categorical properties as are actually instantiated, but nevertheless having different dispositions. For illustra-

³⁸ I state again that what follows is a mere rehearsal of some specific metaphysical theses, not a detailed consideration and evaluation of them. I present a handful of highlights from the program of Humean supervenience, a systematic metaphysics Lewis devoted so much of his thinking to. And my quick tour of these highlights in no way is meant to mirror Lewis's argumentative strategy.

tive purposes, step away for a moment from focusing on the fundamental level of things and consider again an actual fragile glass. The thought being motivated countenances a possible world where that glass (or, again, its counterpart) has the same molecular properties as it actually has, but is nevertheless disposed to bounce, rather than break, when dropped from a high shelf onto a marble floor, because the world in which it's located is governed by different laws of nature. As such, there is no necessary connection between the glass's molecular properties and its disposition to break. There is, then, only a contingent connection between dispositions and their categorical bases, generally, and specifically, between fundamental dispositions and their fundamental causal grounds.

And it is but a small step to move from there being possible worlds identical in their distribution of fundamental categorical properties but different in the dispositions that these properties ground to there being possible worlds identical in their distribution of fundamental dispositions but different in the categorical properties grounding them. Returning to the examples I put forward in section 2.1, this reasoning admits of W1, possible world just like the actual world, but where positive charge is the categorical base for the relevant causal profile associated with electrons and negative charge is the categorical base for the relevant causal profile associated with protons. It also admits of possibilities like W2, where entirely different 'alien' properties not realized in the actual world replace positive and negative charge as the grounds of the relevant dispositions. Denying the necessary connection between fundamental dispositions and their categorical bases just is to acknowledge these possibilities; in particular, it is to embrace 'quidditism', which is a commitment to a kind of haecceitism about properties.³⁹ For present purposes, quidditism

³⁹ Lewis (2009) rejects haecceitism itself and offers reasons why there's no tension in doing so while nevertheless endorsing quidditism.

should be understood as the thesis that there can be two *distinct* possible worlds that are nevertheless identical in regards to their fundamental particles and identical in regards to the way these particles behave over time, and thus identical in regards to everything that supervenes upon these fundamental particles behaving thus and so over time. Consider such worlds to be *structurally identical though categorically distinct*.⁴⁰ The actual world, W1, and W2 should be understood as structurally identical though categorically distinct worlds.

It is important to appreciate that the motivation for embracing these possibilities stems from a variety of judgments about what's possible regarding the laws of nature and the fundamental particles with their dispositions and categorical bases. Can these judgments be challenged and a competing picture be motivated? This is precisely what causal structuralists, or, alternatively, dispositional essentialists, do. As Alexander Bird (2007), a leading proponent of dispositional essentialism, puts it,

According to this view laws are not thrust upon properties, irrespective, as it were, of what those properties are. Rather the laws spring from within the properties themselves. The essential nature of a property is given by its relations with other properties. It wouldn't be that property unless it engaged in those relations. Consequently those relations cannot fail to hold (except by the absence of that property altogether, if that is possible). The laws of nature are thus metaphysically necessary. (p. 2).

How does one evaluate dispositional essentialism? Obviously it results in verdicts about what's possible that run contrary to what many of us think. But a metaphysics of this sort doesn't stand or fall on that alone. Nor is there a simple argument against it. As it turns out, it is no easy task to arrive at a promising methodology that will plausibly help settle the issue of whether the Lewis-inspired understanding of things sketched above, or one such as that put forward by Bird, wins the day. I explore this in more detail in Chapter Three. For now, it is enough to point out that Categorical Humility rests on a set of

⁴⁰ For a more technical characterization of this idea, see Leuenberger (2010), section 3.1.

metaphysical claims about the laws of nature, dispositions and their categorical bases, and the relationship between all of them that has a lot of intuitive force, and that has been well motivated in the literature.

Moving forward, then, the task of establishing the *existence* portion of the Categorical Humility thesis is almost complete. A picture has emerged that I shall call a ‘disconnected metaphysics.’ It presents the fundamental world as lacking any necessary connections. There are the fundamental particles with their dispositions and categorical bases. These categorical properties are distinct from the dispositions they ground, and they bear only a contingent relationship to them. This admits of there being many possibilities as far as what properties occupy the fundamental physical roles of our world; there are many worlds where properties other than positive and negative charge play the roles that positive and negative charge play in our world. Specifically, not only is there W1, where positive and negative charge have just switched, but there’s also W2, where properties not even instantiated in the actual world play the same roles as positive and negative charge do. Can we know anything about what properties are candidates to play these roles across possible worlds? Yes.

2.2.3. Candidate Fundamental Categorical Properties Across Possible Worlds

The stage in the reasoning where Categorical Humility first importantly breaks from Ramseyan Humility is fast approaching. But I don’t part ways with Lewis just yet. Recall that both Categorical Humility and Ramseyan Humility claim that we are ignorant of the fundamental categorical properties; for Lewis, this amounts to us being ignorant of their identities, an idea I will elaborate upon in Section 3. For the proponent of Categorical Humility, our lack of knowledge also includes ignorance of identities, but it involves more

as well. We don't even know, for instance, whether positive and negative charge are mental or physical. I mention this now because this section aims to establish what we *do* know about the fundamental categorical properties. And there's some tension in doing this. All proponents of Humility need to be careful about how much they claim that we know about what we don't know. Many critics of Kant think his position is untenable for reasons like this; he tells us that we can't know things-in-themselves, but then goes on to tell us a lot about them. But possessing knowledge about things-in-themselves, or arriving at substantive conclusions about the fundamental categorical properties, is compatible with us nonetheless being ignorant about some important aspects of these properties. Neither Categorical Humility nor Ramseyan Humility claim that we lack all propositional knowledge about the fundamental categorical properties of things. And the knowledge we do possess is both *a posteriori* and *a priori*. Science tells us that positive charge is the property that causes protons to be attracted to electrons. That's empirical knowledge about it. Philosophy tells us that positive charge is distinct from the causal profile it grounds. That's *a priori* knowledge about it. What follows, then, is a consideration of what more we can learn *a priori* about the fundamental categorical properties, setting up Section 3, where the limit of our knowledge is developed.

I follow Lewis (1983a, 2009) in understanding the candidate properties—the properties across possible worlds that play the relevant fundamental roles—as being *perfectly natural properties*. What are the perfectly natural properties? In his words,

They [perfectly natural properties] are not at all disjunctive, or determinable, or negative. They render their instances perfectly similar in some respect. They are intrinsic; and all other intrinsic properties supervene on them. They are not conjunctive or structural... (Lewis 2009, p. 204.)

These properties ‘figure in a minimal basis on which all else supervenes. No two possible worlds just alike in their patterns of instantiation of fundamental properties could differ in any other way’ (Ibid., p. 205). And they come in different kinds, or categories.

There are all-or-nothing monadic properties. There are all-or-nothing n -adic relations, at least for smallish n . There are properties that admit of degree, that is, magnitudes; more generally, there are scalar-valued, vector-valued, tensor-valued, ... magnitudes. There are relational magnitudes. (Ibid., p. 205)

Consider these categories to be second-order properties of the fundamental categorical properties. As Leuenberger (2010) points out, they should be treated as essential properties of the fundamental categorical properties; for instance, positive charge cannot be an all-or-nothing monadic property in one world and a magnitude in another.

Lewis (1983a) justifies characterizing the fundamental categorical properties in this way by appealing to the overall theoretical usefulness that such an understanding of them brings with it. He defends this conception on both semantic and metaphysical grounds, and it seems as good a starting place as any in thinking about some features of the basic properties of the world.⁴¹ One of these features I want to pause over is the claim that the perfectly natural properties are intrinsic. Although there was much talk about intrinsic properties in Chapter One, I have so far avoided characterizing Categorical Humility in terms of ignorance about the fundamental intrinsic properties of the world. This is not because I think the fundamental categorical properties aren’t intrinsic; I obviously do, since I’m adopting an understanding of these properties along the lines just presented above. But I think it’s more distracting than helpful to focus on the intrinsicness of the fundamental categorical properties when defending Categorical Humility. As was discussed in Chapter One, what it is for a property to be intrinsic, at a first approximation, is

⁴¹ See Lewis (1983) for a way into many of these issues.

for it to stay with an object in *lonely* worlds—worlds where the object alone exists. Now ultimately this won't quite do.⁴² Still, it's enough to see that at the fundamental level of things, the categorical properties aren't the only ones that are intrinsic. On some views, dispositions are had by an object in lonely worlds. And certain logical properties, like the property of self-identity, are had by objects in lonely worlds. So if at the end of analysis these properties, and others, end up counting as intrinsic, they shouldn't be the target of Categorical Humility. We know all there is to know about an object's property of self-identity, and science gives us complete knowledge of the fundamental dispositions. The target is categorical properties, which are simply among the intrinsic properties realized at the fundamental level of things.

With this in place, it is time to turn to one important area where Categorical Humility and Ramseyan Humility diverge. I claim that it is compatible with the characterization of fundamental categorical properties presented above that mental properties, specifically qualia, are among the candidate properties. Lewis emphatically rejects this; qualia are not candidate properties to play the fundamental roles. In what follows I defend my position against Lewis's.

Common sense suggests that the world's properties come in different kinds, some of which don't present themselves as *prima facie* 'fitting together'.⁴³ I'm thinking of the mental, moral, and perhaps phenomenal properties (sounds, colors, etc.), on the one hand, and of the physical properties, on the other. A very popular way of developing this *prima facie* tension is in terms of our epistemic, or more broadly, cognitive connection to

⁴² For Lewis, an intrinsic property of an object is one such that it's possible for that object to have it *both* in lonely worlds—worlds where it exists by itself—and in certain accompanied worlds. See Langton and Lewis (1998).

⁴³ This follows Jackson (1998).

certain properties. What makes the qualitative features of our experience—qualia—‘spooky’? It’s that we stand in a privileged epistemic position to them; specifically, we can come to know their essence simply by having experiences characterized by them. Put a bit differently, the nature of qualia are revealed to us in experience.⁴⁴ So understood, there is a metaphysical categorization of properties along epistemological lines. The world contains importantly different kinds of properties: those we can become acquainted with—that are revealed to us—and those that we can know only by description—that aren’t revealed to us.

I take this division amongst properties to capture our ordinary beliefs about them. And I take qualia, in particular, to be candidate properties for playing the fundamental physical roles. That’s because, in addition to being paradigmatic properties that we stand in a special epistemic relationship to, qualia are also paradigmatic intrinsic properties that seem to satisfy as well the other features of perfectly natural properties sketched above (they aren’t disjunctive, negative, etc.). One need look no further for evidence that qualia are like this than the difficulty they have caused those interested in characterizing them as functional/dispositional properties. Now, I do not want to take a stand at the moment on whether qualia so construed spell trouble for physicalism. I simply want to emphasize that characterizing qualia as I have, and counting them as candidates for being the categorical properties grounding the fundamental physical dispositions, is not done out of some purposeful effort to generate bizarre metaphysical possibilities, but is rather done by taking seriously our common sense understanding of certain kinds of properties, and asking, given this understanding, which are candidates for also being the properties grounding

⁴⁴ Lewis (1995) refers to this understanding of qualia as The Identification Thesis. Elsewhere the idea has been called ‘Revelation’ (See Johnston 1992 and Stoljar 2009), and it has not been confined to qualia. Johnston, for instance, considers whether Revelation is true of the colors.

the fundamental dispositions.

Why does Lewis reject qualia from being candidate properties? He's clear when advancing Ramseyan Humility that alien properties can be perfectly natural properties. Recall that alien properties are those instantiated in worlds other than the actual one. So it would seem that the reasons Lewis could have for rejecting qualia as candidate properties are either that he doesn't think they fit the bill—they aren't perfectly natural properties—or he doesn't think they're even possible. There's no evidence he holds the former position. Concerning the latter, Lewis does embrace materialism. (I'll treat materialism and physicalism as equivalent.) But Lewis (1983a) takes pains to emphasize that materialism is a thesis about the actual world. He in fact explicitly rejects defining materialism in a way such that its truth entails that panpsychism isn't a metaphysical possibility.⁴⁵ Be that as it may, it doesn't appear that Lewis thinks panpsychism is a metaphysical possibility. (It's impossibility, however, will not be established simply by establishing the truth of physicalism.) And that's because Lewis rejects the very possibility of qualia, as I've characterized them. If this rejection doesn't stem directly from a commitment to physicalism, what is it based on?

For Lewis, we can only come to know about properties—*all* properties—by description, not by acquaintance. In other words, we can only come to know them 'from behind a veil of descriptions'.⁴⁶ Even in Lewis (1983a), when discussing the possibility of panpsychism, he concedes that at the end of the day, panpsychist worlds might be impossible, precisely because he thinks it'd be hard to square the view of spooky qualia with functionalism. Lewis thinks there's a case to be made for the idea that mental properties

⁴⁵ Lewis (1983), pp. 33-9.

⁴⁶ Many thanks to Stephen Yablo for this evocative phrase.

across all possible worlds can be given a functional characterization. To say a property is mental is just to say that a certain role is associated with it. And a result of viewing things this way seems to have Lewis conclude that at the fundamental level of things, the only candidate properties are quiddities. As Ann Whittle (2006) puts it,

This conception of a property's intrinsic nature as a simple unanalysable entity, not only explains Lewis's unperturbed attitude towards Humility, it also illustrates that a serious form of scepticism isn't established by Lewis's argument. It isn't an exaggeration to say that not being aware of the intrinsic nature of a fundamental property, on this view, is no more worrying than not being aware of, for instance, Napoleon's non-qualitative thisness, which, say some, accounts for his identity in this and other possible worlds. (p. 476)

As such, our ignorance for him is an innocuous kind of 'bookkeeping' ignorance. We simply can't know whether it's *this* quiddity or *that* quiddity grounding the fundamental dispositions; we can't know, in other words, which of the quiddities is identical to positive charge, but that's all we can't know, and that's not much.

The case for Categorical Humility oughtn't follow Lewis in rejecting metaphysical possibilities involving qualia as the fundamental categorical properties. It is radical to claim that there couldn't be properties that we stand in a special epistemic relationship to. Perhaps such properties aren't actually instantiated. Still, there's nothing incoherent in the concept itself. Now Lewis doesn't advance his view of properties simply to be radical, obviously. And to reject it convincingly requires engaging it to a degree beyond the scope of this paper. As I've taken pains to emphasize, my defense of Categorical Humility does not thoroughly defend all the metaphysical positions needed to advance it. That said, the burden is on me to show that these positions are at least *prima facie* plausible, attractive, and not deeply problematic. Concerning the possibility of qualia, those criteria are met. If it was obvious and well-accepted that qualia weren't even possible, there wouldn't have

been much of a concern to define physicalism in a way that doesn't entail the impossibility of worlds with qualia. But there was that concern.⁴⁷ Categorical Humility does not require that there be actual instantiations of qualia as part of our mental lives in order for there to be the metaphysical possibility that these qualia are also among the fundamental categorical properties. It requires only that in some possible worlds, perhaps quite different than our world, qualia are instantiated. It requires them to be possible, and moreover, to satisfy the criteria for being perfectly natural properties. The concept of qualia I've advanced does that. And even if it doesn't, it would take a significant paucity of imaginative resources to deny wholesale the possibility of any qualia-like properties; properties, in other words, that escape functional description but that also count as perfectly natural. Certain properties of ghosts, or of angels, or of the divine—all such 'spooky' properties would have to be considered impossible for there not to be the metaphysical possibility that they be candidates for the fundamental categorical properties. Admittedly, reflection might conclude that none of these properties are among the *possibilia*. But the reasoning would have to be compelling. Much of the case for Categorical Humility has rested on verdicts about possibilities. And the possibility of some or other qualia-like properties strikes me as being as obvious as the possibility that the laws of nature be other than they in fact are, or the possibility that positively charged particles be attracted to each other.

As such, I embrace the possibility of qualia, and in light of that, conclude by presenting briefly the picture that has emerged. It has been assumed that there is a fundamental level to the world, and it has been argued that that part of the world contains particles with dispositions and distinct categorical bases of these dispositions. There is no

⁴⁷ See Lewis (1983a), as already mentioned, but also Horgan (1983), Jackson (1993). For a general survey of the literature on physicalism, see Stoljar (2009).

necessary connection between these dispositions and their causal grounds, and so there are metaphysical possibilities involving actual fundamental categorical properties swapping roles, and alien properties taking on these roles. Among the candidate properties that could be the fundamental categorical properties are qualia. Panpsychism, in other words, is a genuine metaphysical possibility. And it may be the way the world actually is. Categorical Humility asserts that we don't know. Section 3 explains why.

3. Ignorance

3.1. The Ignorance of Ramseyan Humility

3.1.1. Our Innocuous Lack of Knowledge

It will be helpful to appreciate the kind of ignorance Categorical Humility motivates first by contrasting it with the innocuous ignorance of Ramseyan Humility. And so I first turn to the case for our ignorance that Lewis advances. Recall that Lewis himself admits that his view doesn't pose a troubling lack of knowledge. Consider all the candidate properties for being the fundamental categorical properties. On Lewis's view, these are one and all quiddities, q_1 , q_2 , q_3 , q_4 , etc. Positive charge is among them. What we don't know is which one it is. It's a certain bit of *de dicto* knowledge that we lack. Suppose that positive charge is q_4 . We have plenty of *de re* knowledge about q_4 . We know of it that it is causally responsible for protons being attracted to electrons; we know of it that it grounds a certain causal profile for that particle. We also know of q_4 that it is possible for it to play the role that negative charge actually plays. And so forth. We just don't know that q_4 is positive charge. It is obvious that this is an entirely innocuous form of ignorance. But it is nonetheless worth recalling the argument Lewis offers to establish it.

3.1.2. *Ramsey Sentences and Knowledge of the Role Realizers*

Chapter One showed in rough outline how Lewis uses the idea of Ramsey sentences—in particular, the idea that our scientific theories can be converted into Ramsey sentences—to establish our lack of knowledge about the identities of the fundamental categorical properties. I will now develop his line of thought in more detail.

An empirical investigation of the world gives us a scientific theory that among other things introduces theoretical terms, like ‘positive charge’, that name the fundamental categorical properties. It goes on to tell us about the roles these fundamental categorical properties occupy. The theory tells us, for instance, all the causal relations that positive charge enters into. Let ‘T’ be the name of the final theory arrived at by our best scientific investigation of the world; it should be understood as being a sentence formed using theoretical terms like ‘positive charge’ and ‘negative charge’. Lewis believes that all such theoretical terms can be eliminated, in the following way. Take the old, non-theoretical language we use; call it ‘O’. O is capable of expressing all of our observations and, importantly, is capable of describing the fundamental categorical properties as the occupants of fundamental roles. The theoretical terms in T are replaced with variables; doing so turns T into an open sentence formed entirely using O and variables. It becomes a closed sentence when each variable is existentially quantified over. This new sentence is the Ramsey sentence of T, $R(T)$; it says that T has at least one actual realization, and is thus true if T in fact does.

Suppose T does. And now consider W_2 , where positive and negative charge have been replaced by alien quiddities. It should be clear that $R(T)$, which is true of the actual world, is also true of W_2 , even though entirely different properties make it true. $R(T)$, then, doesn’t distinguish between the actual world, @, and W_2 . And it follows that T it-

self doesn't distinguish between @ and W_2 either. That's because T and $R(T)$ have the same expressive power; there's nothing T says that can't also be said with $R(T)$. But since $R(T)$ is understood as describing, using O, the fundamental categorical properties just as the occupants of roles, T too should be understood as doing nothing more than characterizing the fundamental properties in terms of being the occupants of roles. This just means, though, that our best scientific theory of the world, T, only characterizes the fundamental categorical properties as role occupants, and thus it, just like its Ramsey sentence, doesn't distinguish between @ and W_2 . As a result, our best science cannot tell us which quiddities in fact make true our scientific theory of the world; we can know our scientific theory of the world is true, but we cannot know the identities of those fundamental categorical properties that make it true.

The case Lewis makes regarding our ignorance seems to ultimately come down to claims about the expressive power of our language. The limits of our language end up being the limits of our knowledge. But this opens him up to several objections. Leuenberger (2010) offers the most serious, suggesting that the only way to make sense of Lewis's position is to see it as claiming that our language can only describe the structural features of the world. A consequence of this is that we can't express propositions to the effect that physicalism is true. We can't even say that there are material objects. Leuenberger—rightly, to my mind—concludes that any characterization of our linguistic resources that leaves us so impoverished is deeply implausible. Whether he also demonstrates that Lewis is committed to this absurd position is a question I put aside, because I will show below that the central point Lewis needs to make can be made without relying on claims about the expressive powers of our language. And it's best that this alternative be pursued, since even if Leuenberger is correct, another objection looms. Lewis's claims

about our language may not be absurd, but they are controversial. Why not think that a scientific theory uses a language with more expressive power than an older language that we use? Theoretical physics seems to say things that no other language can say; this is one of the reasons it is so difficult for physicists to describe the content of their theories in anything resembling an ordinary language. Obviously this doesn't amount to an argument against Lewis. But it does suggest that if there is a better way to make his case, it ought to be adopted. I think there is, and it is one I will then adopt in expanding the scope of our ignorance from lack of knowledge about the identities of the fundamental categorical properties to lack of knowledge about whether they're mental or physical.

3.1.3. Skepticism Writ Small?

Let the language we use to formulate our best scientific theory of the world be as expressively powerful as we want. Let it be able to say things that our old language cannot. Let us also be able to name, somehow, all the quiddities across possible worlds that Lewis takes to be candidates for playing the fundamental roles: q_1 , q_2 , q_3 , q_4 , etc. Our best scientific theory of the world, suppose, comprehensively describes all the causal relations positive and negative charge enter into. And suppose also that negative charge is q_3 and positive charge is q_4 . This language will be able to state those truths. 'Positive charge is q_4 ' is a sentence in it that expresses a true proposition. Still, can we come to know it?

Of course not. We have absolutely no evidence for its truth. Or, if one doesn't like that way of putting it, we have no more evidence for positive charge being q_4 than we do for positive charge being q_1 , q_2 , q_3 , q_5 , etc. Given the metaphysical picture working in the background, this should come as no surprise. The actual world, @, where q_3 , i.e., negative charge, is the causal grounds of electrons and q_4 , i.e., positive charge, is the

causal grounds of protons, and a possible world, W1, a structurally identical world to @ where q3 and q4 have switched, are obviously observationally indistinguishable. But more than that, there is nothing to explain in @ that requires us to find out whether we're in @ or W1 in regards to the identities of the fundamental categorical properties. Coming to learn that positive charge is identical to q4 does not give us knowledge that will help to causally explain anything in @. Science is equipped, however, just to answer questions that do have causal importance. Still, it might have something to say about things irrelevant to causal explanations. Suppose I suggest that the world is filled with angels; they don't enter into any causal transactions, but they're a part of it all the same. So understood, angels are irrelevant to the scientific project. But science is still equipped to dismiss their existence, doing so by appealing to principles of simplicity, or of Occam's Razor—principles used to arrive at conclusions about the causal structure of the world. Even so, considerations of simplicity, or of Occam's Razor, will not decide among @ or W1 either. On any plausible understanding of what simplicity amounts to, @ and W1 stand on equal footing in regards to it. And neither is introducing a new kind of entity that the other isn't. In light of this, were someone to assert truthfully, 'Positive charge is q4', what possible line of reasoning could she use to justify her belief? Whatever evidence she pointed to would equally support the claim that positive charge is one of the other quiddities. But more than that, coming down on q4 being the identity of positive charge should strike us as being as epistemologically irresponsible as me claiming to know that my lottery ticket is the winner. More irresponsible, really, since there are presumably an infinite number of quiddities that are candidates.

I suggest that those sympathetic to Ramseyan Humility adopt this line of reasoning to motivate their view. It avoids the pitfalls addressed above concerning the expressive

power of language. But does it invite new problems? Jonathan Schaffer (2005) thinks that understanding matters in this way—where our ignorance doesn't result from claims about the expressive power of our language, but from more general epistemic concerns about evidence—opens the proponent of Ramseyan Humility up to the charge of doing nothing more than advancing a kind of external world skepticism 'writ small'; a skepticism the focus of which is just on our knowledge of the fundamental categorical properties. Schaffer sees this as an objection because he thinks that if Ramseyan Humility is nothing but a kind of external world skepticism, then we can use whatever our favorite means is of responding to the skeptic as a way of answering the claim that we're ignorant of the identities of the fundamental categorical properties.

But given the reasoning I've put forward on behalf of the proponent of Ramseyan Humility, Schaffer's charge clearly misses the mark. External world skepticism, as it is commonly understood, is an interesting thesis precisely because it challenges our conviction that we know what we think we know—what, in particular, we think we have good reason for believing. I didn't take a stab in the dark and come to believe that I have hands. I have lots and lots of evidence that I have hands. But then the skeptic comes in and brings up handless possibilities compatible with all my evidence. She then invites me to conclude that since I can't know that that possibility isn't the way things actually are, I don't know I have hands. Nothing like this is going on with regards to the fundamental categorical properties. We don't think we have lots of reason to believe that positive charge is identical to q4, and then confront someone presenting metaphysical possibilities where it's identical to q3, or q5, or whatever, who then concludes that since our evidence is compatible with those possibilities, we lack knowledge. Crucially, we don't have the belief that positive charge is q4 to start with. And that's because there isn't a good reason to

believe it. Forming that belief would be a guess, a stab in the dark without justification. I've offered reasons why a scientific investigation of the world isn't going to provide reasons for believing that positive charge is identical to q_4 in the first place.

These considerations are sufficient to discharge the worry that Ramseyan Humility can be adequately addressed by appealing to common solutions to skeptical paradoxes. As such, Ramseyan Humility succeeds in motivating ignorance over the identities of the fundamental categorical properties. But as has been argued, this ignorance is bland, uninteresting, nonthreatening, and so forth. Categorical Humility agrees that we don't know the identities of the fundamental categorical properties. But it also maintains that we can't know whether these properties are qualia or not. I turn now to considering whether the reasoning I've used on behalf of Lewis in motivating Ramseyan Humility can be used to motivate the sort of ignorance Categorical Humility claims that we have.

3.2. The Ignorance of Categorical Humility

3.2.1. Our Lack of Knowledge is Not Innocuous

I have been assuming without argument that if Categorical Humility is true, then our ignorance is worrying, in contrast to the ignorance Ramseyan Humility claims we have. This comes down to it being worrying that we can't know whether qualia are the fundamental categorical properties. I think the significance of this ignorance is a fair assumption to make, and that it has some intuitive plausibility. The idea that the entire physical world at bottom is mental, that all the macroscopic phenomena we're acquainted with have as their ultimate causes qualia, is certainly an exotic consideration. It is so exotic that it is often rejected out of hand. It wasn't always so. Panpsychism has enjoyed considerable

popularity at various stages of our intellectual history.⁴⁸ Still, these days, while versions of it receive some attention⁴⁹, it is rarely considered to be a serious possibility. I take it, then, that a thesis like Categorical Humility, which concludes that we can't even know that this exotic possibility isn't actual, is a substantive concern. But for those who don't see it as such, little can be offered to change minds. It's difficult to argue a person into being more worried about something than they're disposed to be.

3.2.2. Science and Categorical Humility

I proceed by using the reasoning I introduced in Section 3.1.2. on behalf of Lewis to make the case that we can't know whether, say, positive and negative charge are qualia. And it should be clear that more will need to be said in establishing this than in establishing that we can't know what quiddities positive and negative charge are identical to. Science, it seems, should be able to provide us with some evidence for the conclusion that whatever property positive charge is identical to, that property isn't a quale.

I argue that, on the contrary, science does not have the resources in hand to discharge this possibility. Some of the reasoning from above carries over in this case with ease. Let us suppose that @ is as it was described above; a world where positive and negative charge are identical to some quiddities, which as I have been understanding not to be qualia. Negative charge is q_3 and positive charge is q_4 . And now consider W_2 , a structurally identical world to @ where the fundamental categorical properties are mental properties—qualia. Negative schmarge is m_3 and positive schmarge is m_4 . At the level of explanation, science has no need to take a stand on whether we are in @ or in W_2 .

⁴⁸ See Skrbina (2007).

⁴⁹ Russell (1927), Maxwell (1978), Foster (1982), Chalmers (2003), G. Strawson (2006), Stoljar (2001, 2006).

Knowing whether positive charge is a quale or a quiddity will not help at all in providing a comprehensive causal explanation of the goings-on in the world. In both worlds, for example, protons and electrons behave the same way and are disposed to behave the same way. So science can't appeal to the fact that positive charge isn't mental in any straightforward way of appealing to this fact as being part of the causal explanation of phenomena.

Even so, certain scientific principles like simplicity and Occam's razor, which weren't helpful in giving reasons to think that positive charge was identical to q_4 , might seem helpful at least in giving reasons to think that positive charge isn't mental, and thus, isn't identical to m_4 . But these principles are just as impotent in this case as they were when considering Ramseyan Humility. $@$ and W_2 are equally simple on any reasonable understanding of what simplicity amounts to. Both have categorical properties that are intrinsic, non-disjunctive, non-negative; these properties and their distribution form the supervenience base for everything else, and so forth. Admittedly, the categorical grounds of W_2 are stranger than $@$'s, but simplicity considerations aren't meant to discharge strange possibilities over less strange possibilities, only more complicated possibilities over less complicated ones. Quantum theory is by most accounts quite strange. It is also elegant. Simplicity considerations don't speak against it.

Perhaps Occam's razor helps here. The thought would be that unless we're convinced that qualia as I have been understanding them show up elsewhere in $@$, say, as properties of our experiences, then introducing them below, at the fundamental level, would be introducing a new kind of thing. And reasoning along Occam's razor lines tells us we shouldn't do that unless it's unavoidable. As it turns out, it is. Quiddities themselves are a new kind of property, in the sense that they don't show up anywhere else in $@$.

These ‘nametag’ properties described by Whittle above may not be as troubling as qualia, but they’re not familiar, either.

3.2.3. *Skepticism Writ Small, Redux*

Science, then, is not going to provide reasons for thinking that positive charge isn’t mental. And if there aren’t reasons for believing this, then it seems my response to Schaffer works here as well. This is not a case of external world skepticism writ small, since we don’t start off with an intuitively justified belief and then have that justification threatened by the consideration of alternative possibilities. And yet, something seems too quick. Granting that science doesn’t give us reasons for believing that positive charge isn’t a quale, it nevertheless is odd to claim that positive charge not being mental *isn’t* a piece of ordinary knowledge. Not only is this a belief that many people have. We think we know that positive charge isn’t mental.

I think there are a couple of things going on here. There are certain propositions we believe in the vicinity of believing that positive charge isn’t mental, and these propositions we have knowledge of. We also ordinarily believe that positive charge isn’t mental, but have no good reason to; it’s not a piece of knowledge. The mistake is thinking that knowledge of one gives us knowledge of the other. To defend this claim, I turn to Stoljar (2001), who gives us two conceptions of the physical: a theory based conception and an object based conception. Roughly, the theory based conception tells us that a property counts as being physical if it is referred to in our scientific theories. And again, roughly, the object based conception tells us that a property counts as physical if it shows up in a complete account of what constitutes ordinary physical objects (trees, desks, etc.). Now I suggest that what we should be confident in knowing is that positive charge is the sort of

property referred to in physical theories, and that it is part of the complete account of what constitutes ordinary physical objects. And we may think that knowing that implies that we know that positive charge isn't mental. But of course it doesn't. Even if positive charge is a quale, it is still referred to in our scientific theories and it is still a part of what constitutes ordinary physical objects. In other words, even if positive charge is a quale, it still counts as physical. So the question that remains is, if science gives us no reason to think that positive charge isn't mental, and if our ordinary knowledge of it being a property described in physical theories and a property that is part of what constitutes ordinary physical objects is compatible with it being mental, then what reasons do we have for nevertheless believing that it's not mental? Here I think is where ordinary knowledge is lacking. If these considerations are presented to Joe or Jane Ordinary, they may still hold onto the belief that positive charge isn't mental, but likely only because it seems weird to think otherwise. That's not an epistemic justification of the belief.

Were that the end of the story, the case for Categorical Humility would have been made. And already it is on fairly solid footing. In light of the metaphysical picture presented in Section 2 and the epistemological reflections presented in Section 3, neither science nor ordinary evidence gives us good reason to believe that positive charge isn't mental. But there is an important consideration that has not been addressed. Perhaps *a priori* reasoning can help. It is to this issue that I turn in Chapter 3.

CHAPTER THREE CATEGORICAL HUMILITY AND META-HUMILITY

1. Introduction

In Chapter Two I presented my case for Categorical Humility. In it I argued that neither scientific knowledge nor ordinary knowledge will allow us to know whether the fundamental categorical properties are mental or not. But many on the contemporary scene think that we nevertheless do know that these properties aren't mental, because we know that physicalism is true. This is a challenge to the *ignorance* component of my thesis. In the first part of this chapter, then, I look at the somewhat complicated relationship between Categorical Humility and physicalism. I then turn to a challenge to the *existence* component of my thesis in Section 3 by taking another look at the causal structuralist alternative to the metaphysics behind Categorical Humility. This leads to a discussion about the methodology of metaphysical inquiry, and in Section 4, I defend a meta-Humility thesis about metaphysics itself; I motivate the view that there are metaphysical facts concerning properties, possibilities, the laws of nature and the like, but we can't come to know what these facts are.

2. Categorical Humility and Physicalism

2.1. Are Categorical Humility and Physicalism Compatible?

As was discussed in Chapter One, Alyssa Ney (2007) argues that the cases for Humility (the Kantian and Ramseyan varieties, at least) rest on an incoherence; the reasoning involved requires physicalism to be true, but the theses themselves are incompatible with physicalism. We argued that Ney is wrong; she builds the contradiction into the arguments themselves. And I have demonstrated in Chapter Two that one can perfectly well

motivate Ramseyan Humility without embracing and then rejecting physicalism. Nonetheless, Ney is onto something, in that there does seem to be a tension between Humility theses and physicalism. In what follows, I will focus my attention on the relationship between Categorical Humility and physicalism.

Physicalism and Categorical Humility are not *prima facie* inconsistent. Physicalism is a metaphysical thesis claiming, roughly, that everything is physical, *a fortiori*, that the fundamental categorical properties are physical. Now as was shown at the end of Chapter Two, Stoljar (2001) tells us that there are a variety of ways of understanding ‘physical’, and on some of them, claiming that the fundamental categorical properties are physical is entirely compatible with claiming that they’re also qualia. But that’s not why physicalism and Categorical Humility are *prima facie* compatible. Categorical Humility doesn’t claim that the fundamental categorical properties are qualia; it claims we can’t know whether they are. Physicalism is a metaphysical thesis; among other things, it tells us that the only properties are physical properties. Categorical Humility is as much an epistemological thesis as it is a metaphysical one; it tells us there are fundamental categorical properties and we can’t know whether they’re qualia. Not being able to know that the fundamental properties aren’t qualia is entirely compatible with them not being qualia. So even if we adopt a different conception of the physical, one that disallows properties from being both physical and mental, this presents no worries for the compatibility of physicalism and Categorical Humility on the face of things. It can be true that the fundamental categorical properties are physical and also true that we can’t know that they are.

Still, it would be extremely odd, on this way of seeing the matter, to assert both the thesis of physicalism and the thesis of Categorical Humility. It would be odd to state both that the fundamental categorical properties aren’t qualia but also that we can’t know

that they aren't qualia. It's odd because we think that to be warranted in making those assertions, we need to be in a position to know that they're both true. And here is where the tension between these two theses first comes out. Perhaps they both can be true, but we can't know them both to be true. If we know that physicalism is true, then we know that the fundamental categorical properties aren't qualia. But if we know that, then we know that Categorical Humility is false, since it tells us we can't know whether the fundamental categorical properties are qualia or not.

The tension between these theses may be even worse. Most physicalists don't think their thesis is best captured by claiming that everything's physical, no matter what conception of the physical is being used. Instead, a popular way to characterize physicalism is as the view that the fundamental physical facts 'fix' all the facts. And this in turn is often spelled out along the following lines. If one were to know all the fundamental physical facts—the facts given to us by a complete physical theory of the world—one would in principle be in a position to know all the facts. But Categorical Humility explicitly rejects this. There are facts about the fundamental categorical properties that escape even the best scientific inquiry. So while these two theses are *prima facie* compatible, the best way to spell out physicalism results in them being inconsistent.

This vindicates Ney to some extent, at least as it concerns Lewis. Although Lewis (2009) doesn't use physicalism to motivate Ramseyan Humility, he explicitly embraces both views. And he can't. At least he can't if he understands physicalism as a thesis about what we would be in a position to know if we knew all the facts given to us by a complete scientific theory of the world. It's open to Lewis to take this criticism as an invitation to characterize the thesis of physicalism in a different way, of course. But in defending Cate-

gorical Humility against physicalism, I proceed with the characterization of physicalism just presented.

2.2. *Categorical Humility vs. Physicalism*

As it turns out, the arguments for physicalism are rather weak. And that's because physicalism is more of a starting place for philosophical reflection than a thesis that today is seen in much need of motivation. Physicalism, in other words, is innocent until proven guilty. Daniel Stoljar (2009) echoes this thought.

The first thing to say when considering the truth of physicalism is that we live in an overwhelmingly physicalist or materialist intellectual culture. The result is that, as things currently stand, the standards of argumentation required to persuade someone of the truth of physicalism are much lower than the standards required to persuade someone of its negation. (The point here is a perfectly general one: if you already believe or want something to be true, you are likely to accept fairly low standards of argumentation for its truth.)

Stoljar goes on to consider several lines of thought motivating physicalism. Chief among them is the Argument from Causal Closure. This has received the most attention, and so I focus on it, and in particular, its first premise, the Causal Closure of the Physical (CCP hereafter). This states, roughly, that our world is such that every physical effect that has a cause has a physical cause.⁵⁰ The argument proceeds by claiming that mental events cause some physical effects. Then it offers some sort of exclusionary principle stating that given that physical events cause physical effects, some other event—like a mental event—also causes these physical effects only if it supervenes on the physical events.

A proponent of Categorical Humility should feel comfortable in rejecting CCP. Suppose an advocate of physicalism comes to me and points out that Categorical Humil-

⁵⁰ I am taking this characterization of CCP, and the Argument from Causal Closure, from Stoljar (2009).

ity and physicalism are incompatible. I agree, of course, and add, so much the worse for physicalism. The physicalist, in turn, challenges me by offering the argument just outlined. I question how she knows the first premise, CCP, to be true. She tells me that it's *prima facie* plausible. And it is. But I point out that I have offered lots of reasons in defense of Categorical Humility, and that thesis has as its consequence that we can't know whether CCP is true. To know it, we'd need to know that the fundamental categorical properties, which are causes, aren't qualia. And we can't know that. Now if all my opponent has to fall back on at this point is to once more rehearse the intuitive plausibility of CCP, that's not going to be enough. But that is more or less all that physicalists have done; that is what is meant when it is claimed that they embrace a starting place for inquiry, but not one that is backed by a lot of argumentation.

My reasoning here is meant to bring out two things. First, one can't endorse Categorical Humility and physicalism, at least as the latter is commonly understood. Second, rather than viewing physicalism as a well-defended thesis, it should be viewed as it is, namely, as an intuitively plausible starting place. But that's it. If the case for Categorical Humility ends up putting pressure on some intuitively plausible principles, forcing one to find reasons other than their initial intuitive plausibility to maintain them, so be it. In the absence of those better reasons, Categorical Humility stands firm. Consider this a first volley at the physicalist; a shift in the burden of proof.⁵¹

3. Categorical Humility and Causal Structuralism Once More

A different way to put pressure on Categorical Humility has already been mentioned in

⁵¹ There is an increasingly loud chorus of voices, coming from a variety of fronts, putting pressure on physicalism. See Koons and Bealer (2010) for a collection of essays along these lines.

Chapters One and Two. Causal structuralism, or dispositional essentialism, challenges the metaphysical picture needed to get Categorical Humility off the ground. And unlike I have just done with regards to physicalism, I will not be able to rest comfortable with the thought that causal structuralism is an under motivated thesis. It is so well motivated, in fact, that it is well beyond the scope of this paper to adequately assess the view, especially since there are different versions of it.⁵² What I will do in what follows is say a little more about it and point out again some of its benefits and shortcomings. I do this to set the stage for Section 4, where I step back from the entire project I've been engaged in and ask whether we can reasonably expect metaphysics to give us knowledge about matters like whether the causal structuralist picture of things, or the one I advance in defending Categorical Humility, is the way things really are.

Causal structuralism is the thesis that the causal profiles of perfectly natural properties (hereafter I'll drop the 'perfectly') exhaust the essences of those properties. These causal profiles are to be understood, as they have been, as dispositions. The causal profile of a natural property needn't be all the causal powers it has. But following Hawthorne (2001), I'll assume for the sake of simplicity that all the causal powers are in fact part of its profile. And there are two different ways the idea that the causal profile of a natural property exhausts its essence can be understood. One is to develop this idea in an eliminativist vein, claiming that a natural property just is its causal profile. Another is to develop it in a reductionist vein, claiming that facts about the essences of natural properties strongly supervene upon facts about their causal profiles.

Why be a causal structuralist? Hawthorne (2001) rehearses several arguments in

⁵² As per Chapter One, see Sydney Shoemaker (1980), Alexander Bird (2007), John Hawthorne (2001), James Ladyman (2002), and Ann Whittle (2006), among others.

favor of the view, zeroing in on what he takes to be the most promising of the bunch.

That line of reasoning involves something like a methodological appeal to simplicity; science is in the business of articulating the causal structure of the world, and if it can do so without positing distinct categorical properties that could be as esoteric as being qualia, so much the better. As was quoted earlier, here he is on the matter:

Science seems to offer no conception of negative charge as something over and above ‘the thing that plays the charge role’. If there were a quiddity that were, so to speak, the role filler, it would not be something that science had any direct cognitive access to, except via the reference fixer ‘the quiddity that actually plays the charge role’. Why invoke what you don’t need? (p. 368)

It should be clear at this point that I don’t find much merit in this motivation. First, I’ve already argued that appeals to simplicity miss their mark. Second, the reason that Lewis, and I, and many others posit role fillers is because it’s a very reasonable approach to thinking about dispositions. Are there other reasons to be a causal structuralist? Of course. Indeed, one of the chief motivations for the view is precisely that it allows one to avoid the skeptical conclusions I’ve advanced. Thinking about this as an eliminativist, if there is nothing to the natural properties other than their causal profiles, that amounts to saying that positive charge, say, just is a disposition. If there aren’t any categorical grounds to dispositions, there’s nothing for us to be ignorant of.

Proceeding in this eliminativist vein, Chapter Two already looked at some of the costs of viewing things this way. Either the natural properties—understood now as being dispositions—are unique among the dispositions in not having distinct categorical bases, or they aren’t. If they are, then there needs to be a significant motivation for why they are the exception, and that motivation better amount to more than just claiming that doing so avoids epistemological worries. If they aren’t unique and in fact all dispositions are

baseless, then this requires us to somewhat radically adjust our intuitions about what dispositions are and how they fit into the world.

No doubt the causal structuralist has responses to these concerns. Do they carry the day? That depends. The metaphysics behind Categorical Humility gets a lot of intuitions right. But it comes at a cost, chief among them, an epistemological cost that I have developed. Causal structuralism, for its part, leads to certain unintuitive results. But it spares us, at least in its eliminativist variety, the cost of not knowing what the fundamental categorical properties are. There are no such properties to be ignorant of, on this view. If the skeptical conclusions of Categorical Humility are serious, and I've suggested they are, does this benefit of causal structuralism outweigh the costs of its unintuitive conclusions?

Hawthorne dismisses the epistemological motivation for causal structuralism on the grounds that we have no agreed-upon methodology for when we ought to 'fix the metaphysics' in order to 'get the epistemology right'. I wholeheartedly agree that we have no such methodology. What I find interesting is that he doesn't seem to see how this criticism generalizes. We have no agreed upon methodology for when simplicity considerations should carry the day. We have no agreed upon methodology for how many unintuitive results a theory has to have before it's too many. We have, simply put, no agreed upon methodology in metaphysics on how to weigh the many costs and benefits we find in robust metaphysical pictures. And this should give us pause over whether we are likely to arrive at the truth when we engage in a cost benefit analysis in metaphysics, similar to the analysis I've sketched here. It is time to turn to that matter directly.

4. Meta-Humility

4.1. Metaphysical Despair?

The idea that the methods we use in trying to arrive at substantive results in metaphysics may not be up to the task we put them to is certainly not a new one. Kant (1781/1787) famously put the matter best.

Human reason has this peculiar fate that in one species of its knowledge it is burdened by questions which, as prescribed by the very nature of reason itself, it is not able to ignore, but which, as transcending all its powers, it is also not able to answer.

More recently, David Lewis (1983c), one of the most important contributors to metaphysics in the twentieth century, and someone whose views have obviously influenced my own, expressed similar concerns.

But when all is said and done, and all the tricky arguments and distinctions and counterexamples have been discovered, presumably we will still face the question which prices are worth paying, which theories are on balance credible, which are the unacceptably counterintuitive consequences and which are the acceptably counterintuitive ones. On this question we may still differ. And if all is indeed said and done, there will be no hope of discovering still further arguments to settle our differences. (p. x)

If we reach a point in evaluation when there is no hope of further arguments settling the issue, how do we decide between robust metaphysical options? Lewis goes on to suggest that it may ultimately just boil down to a matter of taste. ‘Once the menu of well worked-out theories is before us, philosophy is a matter of opinion.’⁵³

This is a striking position to hold, especially for someone who devoted so much effort to advancing metaphysics. What makes it striking is that it seems that a reasonable conclusion to draw from these remarks is that we should no longer take seriously the idea that metaphysics will get us the truth. If the best methodology we have to settle disagreements among views is one that, at the end of the day, comes down to a matter of taste,

⁵³ *Ibid.*, p. xi.

then at best we're going to have to get comfortable with the idea that there'll always be competing theories on the table without a way of settling between them, and thus, that the truth of the matter will remain epistemologically closed to us. At worst, we might conclude, as some have done with other matters of taste, that there is simply no fact of the matter about these issues. Neither of these options is particularly palatable, and so it seems right to resist the line of reasoning that got us here.

But how to do this? Richard Cartwright (1987) offers a spirited articulation of such resistance.

If a disagreement persists even though everything that could possibly influence the intellect is already in, and known to both sides, can it be a disagreement in *opinion*? I think not. I have to concede that the menu of alternative answers is limited to a small number of ill-prepared dishes. But that means more work for the philosopher: metaphilosophy is, after all, part of philosophy. So the ultimate impasse, if that is what it is, is not an occasion for coming to rest. (p. xv)

It's difficult to know what to do with this *must work harder* attitude, though. If everything that could possibly influence the intellect is in fact already on the table; if, as Lewis puts it, everything is all said and done, what additional work is there left to do? Perhaps a charitable way of reading Cartwright is to take him as inviting us to expand our list of admissible reasons for and against a theory. Perhaps metaphysicians ought to allow their intellects to be influenced by more considerations than they currently do. What might that amount to? An inviting suggestion is to let something like aesthetic considerations weigh on adopting metaphysical systems. This would require hard work of the Cartwright variety on several fronts. For one thing, it would require more system-building. It strikes me that only when viewed holistically could aesthetic considerations like elegance and beauty—whatever those amount to in this arena—be brought to bear on metaphysical issues.

Pragmatic considerations might also reasonably be brought to bear on evaluating metaphysical positions. Mark Johnston (2009) has given an excellent example of this. In his book *Saving God*, Johnston is concerned with ‘giving the expression of a certain sensibility’ (p. xi). He wants to articulate a certain conception of God, a panentheistic one where the world is conceived as a proper part of the Divine. Importantly, Johnston does not see his efforts as offering a philosophical defense of this view of God; it assumes the view, and offers a philosophically sophisticated characterization of it. Part of that characterization involves appealing to the Theory of Appearing (or something close enough), a particular account of what perception involves that stands in opposition to representational theories of perception. At the risk of understatement, a tremendous amount of scholarship has been devoted to theories of perception over the past several decades. Many views have been advanced, each with attractive and unattractive consequences. Suppose, in deciding among them, Johnston chooses the Theory of Appearing partially on the grounds that it best suits his purposes in articulating—articulating, not motivating—a certain conception of God. And also suppose, for the sake of argument, that the costs and benefits of the Theory of Appearing are equally balanced against the costs and benefits of other theories of perception. If that’s the case, then this pragmatic reason to endorse the Theory of Appearing would count as a philosophical reason in its favor. And more hard work, along Cartwright’s lines, would involve us seeing how certain metaphysical views could be pragmatically employed in ways like this.

The problem with bringing both aesthetic and pragmatic considerations into the evaluation of metaphysical positions is that they are quite unlikely to break up the kind of impasse Lewis is pointing to. Desert landscapes, for instance, are as beautiful to some as dense jungles are to others; aesthetic disagreements notoriously end in stalemates. And

pragmatic factors, by their very nature, are relevant only given certain interests, interests that are unlikely to be shared by all. But even if something like a consensus was reached by including such reasons, we wouldn't have escaped the central worry at hand. Whether it be mere opinions, or aesthetic judgments, or pragmatic considerations that at the end of the day guide us in choosing one metaphysical position over another, none of these seem to be relevant to the truth of these positions. Metaphysics is about the way the world is. How can determining what is a more beautiful or useful thesis help in determining whether it accurately describes the world?

4.2. *Nihilism, Relativism, and Realism*

We face three options at this point. If there is irresolvable disagreement at some stage of metaphysical theorizing, or if consensus is reached only by appealing to factors involving aesthetic taste or pragmatic usefulness, then one option, especially if the situation is one of persistent disagreement even after all considerations have been put on the table, is to claim that there is no fact of the matter in question. Certain metaontological conclusions about the disagreement over material objects have taken this stance.⁵⁴ Another option is to claim that there are metaphysical truths, but they are only relative to sets of standards (aesthetic, pragmatic, etc.) and there is no absolute standard by which to evaluate them. A third option—the meta-Humility option, as I will be understanding it—is to bite the bul-

⁵⁴ Alan Sidelle (2002) is one such advocate of this view. 'What I submit is that, among these packages [of theories about material objects]—and perhaps others—there can be no fact of the matter as to which *truly* describes the material ontology and persistence of things in the world. They can only be understood as different ways of articulating, extending and making coherent the combination of our ordinary judgments and theoretical ideas. But short of showing that really, all but one are incoherent, I don't see what in the world can *make* one true; or equivalently, while the theories plainly *differ*, I don't see how *that with respect to which they differ* can be understood as a factual matter' (p. 134).

let and claim that there are absolute metaphysical truths, but even given our best methods, we cannot come to learn them.

In deciding which way to go, we should heed Karen Bennett's (2009) warning that one shoe doesn't fit all when it comes to these matters, and thus we should look carefully at the details of each 'localized' metaphysical disagreement—about material objects, about abstract objects, etc.—before deciding which option seems the most reasonable. Bennett provides an analysis of certain metaphysical disputes that supports interpreting them in the third way. Focusing her attention on disagreements about material constitution and composition, she points out several features these disputes share. First, they have a high ontology side and a low ontology side, which should be understood in terms of how many things in question a position posits. (How many co-located objects it says there are, for instance.) Second, these disagreements are difference-minimizing, in that each side to the dispute wants to play down its differences to the other side. Third, neither side wins the day in terms of simplicity. And fourth, problems for the high ontology side of things end up arising for the low ontology side as well. As she argues, when these conditions are met in a metaphysical dispute, there is good evidence that the situation is one in which there's an underdetermination of theory by evidence; there's a fact of the matter, but our evidence isn't sufficient to allow us to determine just what the facts are.

What are we to do in cases of metaphysical disagreements involving such underdetermination? Bennett answers by echoing some of the ideas I developed above.

For all I have said here, then, it remains open that there may be some broader theoretical grounds that can justify our choice [between competing metaphysical theses]. Scientific realists who think that there is a real choice to be made can perhaps do so by appeal to nonempirical criteria—the simplicity and elegance of the overall picture, for example. Similarly for the sorts of 'metaphysically equivalent' theories that I have been discussing... The epistemic impasse can only be broken, if it can be broken at

all, by reflection on broader theoretical and methodological questions.
(pp.73-4)

Here, though, Bennett is leaning on the idea that perhaps these other criteria, whatever they turn out to be, will prove to be truth-conducive. But in the absence of arguments suggesting as much—and Bennett admits that not much has been done on this front at all—we are left with an epistemic impasse. We can still find grounds to choose between theories, but not grounds that will plausibly amount to us knowing which theory is true.

When it comes to some of metaphysical issues that have preoccupied this thesis, I suggest that there is an underdetermination of theory by evidence. I do not believe that all the conditions offered by Bennett are satisfied when it comes to disagreements over, say, whether dispositions have distinct categorical bases, or whether there is a necessary connection between dispositions and their categorical bases. But then Bennett never presented those conditions as necessary in determining whether the situation at hand is one of underdetermination. The question remains, though, whether in such cases, going the meta-Humility route is the best interpretation of the dispute. Why not instead say there's no fact of the matter, or embrace a kind of relativism?

I find it exceedingly difficult to imagine that there is no fact of the matter over the issues I have focused on; e.g., there is no fact of the matter about whether dispositions have distinct categorical bases, there is no fact of the matter about whether the laws of nature are necessary, there is no fact of the matter about whether qualia are even possible, and so forth. Embracing a certain degree of incredulity over the idea that all these matters are merely verbal disputes or in some other way not substantive, I put aside as a live option the idea that there is in some sense no fact of the matter regarding the metaphysical issues I have been preoccupied with addressing.

What about relativism? The problem I have laid out above in regards to metaphysics is most clearly analogous to what happens in ethics. And in ethics, there appears to be no hope anytime soon of reaching anything resembling a consensus. Few would interpret this as meaning that there is no fact of the matter when it comes to what we ought to do. But many might be tempted to adopt a form of relativism; there is no absolute fact of the matter about what we ought to do, only relative facts of the matter. When one steps back and looks at the various criteria that are used in evaluating ethical theories, a partial list includes such things as whether it's consistent, how comprehensive it is, whether it has intuitively plausible principles, whether it results in intuitively plausible verdicts about particular cases, whether it's simple, how good of a decision making procedure it provides, and so forth. These criteria can be met in various ways. A brute act consequentialism scores high on the simplicity scale and on the scale of the intuitive plausibility of its principles, but fails terribly in terms of the plausibility of the verdicts it reaches. The work of Frances Kamm provides a set of principles that get many of our intuitive verdicts about particular cases right, but these are not simple principles, and it is unclear how comprehensive they are. The process of reflective equilibrium suggests we should balance all these considerations against each other. Doing so, though, is unlikely to lead to consensus on which theory is the best one, because how much one weighs these criteria differs from person to person, and there doesn't seem to be a way to reach agreement on how much weight should be put on each of the criteria. Given that a certain degree of personal taste therefore creeps in at this stage, which affects the overall evaluation of theories, a kind of relativism seems like a viable option. Since there seems to be no way to decide which theory is the best, we should, rather than conclude that we will never know what we ought to

do, conclude instead that we can know what we ought to do relative to certain theories, and that there are no absolute moral facts to be known besides these relative ones.

So why can't an analogous line of reasoning be used to motivate relativism about metaphysics? I take the subject matter of metaphysics itself to resist this approach. To my mind, if it turns out the normative realm of facts is relative, this is not a terrible result, because in some sense, normative facts are us-involving. And if it turns out that conceptual analysis doesn't come down on just one property being what our concept of knowledge picks out, or what our concept of causation picks out, this too is not a terrible result, because again, this plurality is at least in part due to us; in this case, the 'mushiness' of our concepts. But metaphysics presents itself as being about the way the world is, regardless of our place in it and opinions of it. That the laws of nature are contingent, on the assumption they are, strikes me as no more a relative fact than what the specific laws of nature are.

This suggests to me that realism should be adopted about the domain of metaphysical facts that have been under discussion in this thesis. There's an absolute fact of the matter about whether dispositions have distinct categorical bases and whether qualia are possible properties. But we have little reason to think that our methods of investigating these metaphysical facts are likely to bring us the truth. Mere personal taste, aesthetic judgments, and pragmatic considerations—all notoriously not the best means of arriving at a sober grip on what the world is really like—are inescapably wound up in our metaphysical theorizing. As a result, we ought to adopt a meta-Humility thesis about metaphysics itself. This thesis claims that there are some domains of metaphysical non-relative facts (facts about the laws of nature, say, or about dispositions) that we nevertheless can't come to know.

4.3. Pulling Out the Rug From Under My Feet?

But if this is correct, how do I view the project I've been engaged in? Do I know that Categorical Humility is true? No, I don't. But that doesn't mean that investigating it wasn't worthwhile, or that anyone else is in a better position as regards to its truth than I am. Metaphysics still aims at arriving at the truth, even if those of us who engage in it know that our methods won't give us knowledge. Since our aim is the truth, we oughtn't abandon the standards of investigation we've adopted. We need, at the minimum, to arrive at conclusions about what the costs and benefits of various positions are, what the best arguments for certain principles are, what theses work best together and which don't, and so forth. Still, we should not put forward our theses as pieces of knowledge, either. We need to adopt a new propositional attitude toward them closer to acceptance than belief. But just because metaphysicians will never develop a satisfying means for arriving at the truths they seek, the standards of evaluation we've adopted are not arbitrary. It is not a case of anything goes. We should not, in other words, become like the metaphysicians Borges (1962) writes about in 'Tlon, Uqbar, Orbis Tertius', who 'do not seek for the truth or even for verisimilitude, but rather for the astounding.' Categorical Humility is not an astounding thesis, nor is it one I can confidently claim to know. But it is one I accept, for the reasons I have presented throughout these pages. And in the best spirit of humility, acceptance will have to be enough.

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