

Realism and the Absence of Value

Abstract: Much recent metaphysics is built around notions such as naturalness, fundamentality, grounding, dependence, essence, and others besides. In this paper I raise a problem for this kind of metaphysics, the “problem of missing value”. I survey a number of possible solutions to the problem and find them all wanting. This suggests a return to a kind of Goodmanian view that the world is a structureless mess onto which we project our own categorizations, not something with categories already built in.

1. Realism

Properties are cheap. There is the property of being an electron, of being green, and of being an emerald. But there is also the property of being an electron or a cow, of being grue, and of being a gremerald.¹ Is there a difference between these two lists? The former properties seem more important and worthy of our attention; the latter seem like gerrymandered trash we can ignore. But does this difference reflect something about the properties themselves, or something about us?

Goodman (1955) thought the latter. The fact that English speakers attend to green rather than grue is an upshot of our linguistic history but does not reflect anything special about the properties themselves. On this view, a community with a different linguistic history may not be getting anything *wrong about the world* by theorizing in terms of grue rather than green. We propose the theory that all emeralds are green; they propose the theory that all gremeralds are

¹ Goodman (1955) introduced ‘grue’ roughly as follows: something is grue iff it is either observed before t and green, or not observed before t and blue. And let the term ‘gremerald’ be defined thus: something is a gremerald iff it is either observed before t and an emerald, or not observed before t and a sapphire. For our purposes we can let t be the year 2050.

grue. Both theories are true, both communities are theorizing in appropriate terms relative to their respective languages, and on this view there is no further fact about who “really” represents the world better.

By contrast, Lewis (1983) suggested that some properties are metaphysically distinguished. His idea was that a relatively small number of properties are “perfectly natural”, and other properties can be ranked as more or less natural thanks to their distance from the perfectly natural properties along a certain measure. Thus, he might say that being an election is perfectly natural, and that green is more natural than grue. If a property is perfectly natural, according to Lewis, this is a primitive, irreducible fact about the property, and it is an objective fact insofar as it does not consist in anything about us such as our linguistic history.² If this is right one might then say, with Sider (2011), that a community theorizing in terms of grue rather than green is *getting something wrong about the world*: even if their theories are true and couched in the right terms relative to their own language, they nonetheless fail to carve the world at its “natural joints”.³

Goodman’s view is sometimes characterized as an “egalitarian” view on which all properties, including green and grue, are “on a par”. But that is not quite right. If I, NN, started theorizing in terms of grue instead of green, Goodman would say that I am making a mistake; that given our shared linguistic history (English) I am not theorizing as I ought. In *that* sense he agrees that

² In truth, Lewis was undecided about whether naturalness was primitive or whether it might be analyzed in terms of universals à la Armstrong (1978). But as we will see, the difference between these views is inconsequential in what follows, so I will focus on the view that naturalness is primitive for simplicity. Note that this notion of naturalness is distinct from Taylor’s (2015) notion of context-dependent naturalness, since as Taylor emphasizes the latter is explicitly defined to be interest-dependent, not objective in the sense intended here.

³ See Sider (2011, p. 2), where he says that a community might believe true theories about the world in terms appropriate to their own language, but nonetheless be “*making a mistake*... The problem is they’ve got the wrong concepts. They’re carving the world up incorrectly... Although their beliefs are true, those beliefs do not match the world’s structure”. This view is in play throughout the book, but see Chapter 4, section 5, for more explicit discussion.

green is special—at least for us—while grue is not. The disagreement concerns the source of my mistake. According to Goodman, my mistake would lie in using a predicate that is not *entrenched*, where being entrenched amounts to facts about its history of usage. By contrast, for Sider my mistake would lie in theorizing in terms of a property that is highly unnatural.⁴

I will use the term “elite” to label this broad notion of specialness that even Goodman can recognize. The elite properties, then, are (by definition) those that our theorizing *should* center around—those that it would be a *mistake* to ignore in favor of others—where this should be read as leaving open Goodman’s account of what this consists in. Put like this, the question is not *whether* green is elite: both parties agree that it is (at least for us). The question is instead what *makes* green elite. For Goodman, green is elite for us because ‘green’ is entrenched in our language. On this view eliteness is a language-relative matter: a property can be elite relative to one language but not another, and there is no further fact of the matter as to which properties are “really” elite. By contrast, on Sider’s view there is a further fact: the properties that are “really” elite are those that are natural.⁵

⁴ To be sure, Goodman (1955) does not explicitly state the view I attribute to him in terms of “ought” and “mistake”, but I think it is clear enough that he accepts this kind of picture. He distinguishes *projectable* predicates like ‘green’ from *unprojectable* predicates like ‘grue’, and it is clear that he takes projectable predicates to play an important role in science. After all, his view is that only hypotheses formulated in projectable terms support counterfactuals, underwrite dispositions and other varieties of scientific necessity, are confirmed by their instances, and so on. Insofar as good science involves itself with hypotheses that play these roles, this amounts to the idea that it would be a “mistake” to theorize in terms of unprojectable predicates (at least in a broad sense of the term). Goodman’s question is what distinguishes the projectable predicates, and in chapter 4 he argues that it is facts about their history of usage. Thus we have the kind of view I describe in the text. Note also that in Goodman (1966) he is clear that even *true* hypotheses like ‘All gremeralds are grue’ aren’t properly confirmed by induction. Thus on Goodman’s view a hypothesis can count as unprojectable, and hence not the proper target of scientific theorizing, even if inducing on its instances would lead to true belief. The mistake in theorizing in terms of ‘grue’ is therefore not, on Goodman’s view, a matter of being led to false belief, but a matter of using predicates that aren’t entrenched.

⁵ It is a terminological decision to use ‘elite’ broadly, so that all can agree that green is elite. We could instead decide to use it narrowly, so that to be elite is to be something we “should” theorize about in the strong sense that only Sider recognizes. But this is just a verbal issue; nothing of substance hangs on our decision to use ‘elite’ broadly. See section 8 for more on this.

More generally, on Sider's view green's being elite is an *objective* fact in the sense that it holds independently of facts about human beings. In addition to all the facts about which properties are singled out as special by certain languages, cultures, and other facets of human life, there's a further fact about which properties are "really" elite. The view that eliteness is objective in this sense is what I'll call "realism" about eliteness. By contrast, I'll call Goodman's view "anti-realist" because it holds that eliteness is not objective in this sense.

Goodman's view is just one example of anti-realism. He said that which properties are elite (for us) depends on our language, but other anti-realists might focus on different facts about us such as our interests, cultural history, or what have you. Thus, Rorty shows his anti-realist cards when he writes that "We speak a language which includes the word 'giraffe' because it suits our purposes to do so. All the descriptions we give of things are descriptions suited to our purposes. No sense can be made... of the claim that some of these descriptions pick out 'natural kinds'—that they cut nature at the joints" (2000, p. xxvi).⁶ Anti-realist views have also been defended recently by Putnam (1990), Taylor (1993), Price (2011), and Thomasson (2015).

Likewise, Sider's view is just one example of realism. Instead of positing a primitive property of naturalness, one might instead say that some propositions have a primitive, objective property of *being a law* (see Maudlin (2007) for a view in this vicinity). A realist could then say that the elite properties are those that figure in the laws. Alternatively, one might posit a primitive relation of *grounding* that holds between properties, such that it is an objective fact which properties ground others; see Schaffer (2016a, 2017). A realist could then say that the elite

⁶ To be clear, the realist may agree that we cannot have a word for *every* natural kind, so that we have words for the natural kinds we do in part because of our purposes. But she insists that *giraffe* is a natural kind nonetheless, and that this explains why we should theorize in terms of 'giraffe' and not 'giraffe or electron or my left foot'. It is this that the anti-realist denies.

properties are those that are ungrounded.⁷ Or one might follow Armstrong (1978) and posit a sparse set of universals, and a realist could then say that the elite properties are those that correspond to a universal.⁸ All these views are realist insofar as they hold that a property's being elite is an objective matter. Even if two communities theorize in appropriate terms relative to their respective languages or interests or cultures, there is a further fact about which properties are "really" elite.

Sider's realism actually consists in two claims. The first is a claim of pure metaphysics: that there is a primitive, objective property of *being natural* that some properties have and others lack. And the second is a value-theoretic claim: that it is *mistake* to theorize in terms of unnatural properties like *grue*; that it is *better* to theorize in terms of natural properties; that one's theorizing *should* center around natural properties. This second claim is essential to Sider's account of eliteness. For eliteness is by definition a value-theoretic phenomenon: to be elite is to be something our theorizing *should* center around. It may be that there is a primitive property of naturalness that green has and *grue* lacks, but without the value-theoretic claim this yields no explanation of why green is elite in this sense. The same goes for all the realist views just mentioned. To account for eliteness, they must be understood as consisting in two claims: a purely *metaphysical* claim that posits some objective property of "being a law", or relation of grounding, or whatever; and a *value-theoretic* claim to the effect that the metaphysical posit *should* guide our theorizing.

⁷ To be clear, not all grounding theorists agree that grounding is primitive. Others analyze it in terms of some other primitive notion such as essence (Rosen 2010 and Fine 2012 discuss this kind of view) or metaphysical laws (see Wilsch 2015). But a realism built around *those* views of ground would ultimately base its account of eliteness on the notion of essence, or metaphysical laws, respectively.

⁸ Lewis himself was amenable to this view; see footnote 2.

Those who make the first claim—the purely metaphysical claim—are sometimes known as “metaphysical realists”. But as we will see, many so-called metaphysical realists appear to suppose that the value-theoretic claim automatically comes along with their metaphysical posit. Indeed the two claims are rarely distinguished explicitly, resulting in much ambiguity as to what “metaphysical realism” really denotes. To avoid confusion, I will use “*pure* metaphysical realism” to describe the claims of pure metaphysics. By contrast, my topic is *realism about eliteness*, which is the conjunction of pure metaphysical realism and the value-theoretic claim. We might call this “theoretical realism”, since eliteness concerns good *theorizing*. But for brevity I will use “realism”, leaving it understood that this is realism about eliteness.

It is hard to over-state the significance of this question of realism vs anti-realism about eliteness. The elite properties are those that guide our “theorizing”, and theorizing can include *explaining* events, investigating *causal* dependencies, *confirming* laws and theories on the basis of observation, *predicting* future events, and indeed most aspects of the scientific enterprise. For the realist, it is an objective matter which properties science should reflect, and scientists err if they theorize about other properties instead. But for the anti-realist, different communities may theorize in terms of different clusters of properties, resulting in different scientific theories, yet it may be that none of them are making any kind of a “mistake” or “missing out” on anything. They all theorize in the right terms relative to their respective interests and histories, and on this view there is no further fact about which one is “really” getting things right. Thus, anti-realism threatens the conception of scientific objectivity on which there is one metaphysically privileged “right way” to do science.

I have always been a realist at heart. The idea that there is something objectively wrong about theorizing in terms of grue always struck me as an obvious truth that only a philosopher

(in the pejorative sense) would deny. But I've now come to think that there's a problem with realism, and I have no idea how to solve it. Of course, objections to *pure metaphysical realism* are nothing new: some question the intelligibility of talk of primitive metaphysical posits (Carnap 1950, Putnam 1980); others emphasize epistemic problems in accounting for knowledge of primitive metaphysical posits (Thomasson 2017, forthcoming); yet others worry that the metaphysical posits usher a return to metaphysics that is objectionably obscure or Scholastic (or, perhaps worse, pre-Socratic; see Hofweber 2009). But the problem I have in mind is different and targets the *value-theoretic* claim. The problem is that even if the realist's metaphysical posit is out there, it is hard to see why it should govern how we theorize. My aim in this paper is to develop the problem and explain why various possible solutions do not work. Where one goes from there I leave for another time.⁹

Strictly speaking, this leaves pure metaphysical realism untouched: my arguments leave open that there is such a thing as primitive naturalness, law-hood, or grounding out there in the world. But I will argue in section 7 that if the value-theoretic claim is false—if the metaphysical posits do not constrain how we should theorize—the metaphysical posits lose much of their significance. Indeed, by discussing the value-theoretic claim I hope to show as a corollary how toothless pure metaphysical realism is without it. Moreover, while the value-theoretic claim is rarely explicit in contemporary metaphysics outside of Sider (2011), I will argue that it is a pervasive undercurrent throughout much of the contemporary work on naturalness, grounding, law-hood, and the like. My target, then, is not just Sider, but this contemporary work in metaphysics more generally.

⁹ This idea that metaphysical posits wouldn't have value-theoretic upshots is not new—see Rorty (2000) and Kraut (2010, 2016) for claims to this effect. But while these authors eloquently *state* that the value-theoretic claim is untenable, they say little by way of justification as to *why*. Here my aim is to provide an argument. Hofweber (2016, p. 315) made a related argument when he claimed that “esoteric” metaphysics has no value. But the argument I develop here is somewhat different and applies to views that are not esoteric in Hofweber's sense.

Before developing the problem let me make three clarifications. First, I described the issue of realism vs anti-realism as an issue about what makes a given *property* elite, but some do not believe in properties. No matter: one could just as well put the issue in terms of *sets*, of what makes the set of green things elite and the set of grue things not. Or in terms of *concepts* or *predicates*. But the differences between these formulations will not matter and I will slide between them freely. Second, I will largely talk as if there is a binary distinction between elite and non-elite properties. In reality there may be degrees of eliteness—and, correspondingly, degrees of naturalness—but I will largely ignore this complication here. Finally, Sider (2011) argues that the issue of realism arises not just for properties (sets, predicates) but more generally for quantifiers, operators, and items of any category. For convenience I restrict myself to properties (sets, predicates), but my discussion applies equally to the more general issue too.

To develop the problem I will focus on Sider's particular realist view, noting how the problem arises for other realist views as we go along. For this reason I will often use "realism" to denote Sider's particular view for convenience. As I said, the problem concerns the value-theoretic claim. Grant the metaphysical claim: suppose that there is a primitive property of naturalness that some sets have and others lack. Suppose in particular that the set of green things has this property and the set of grue things does not. The question is why our theorizing should be guided by this primitive property. Why is it better to theorize in terms of those sets that have the primitive property than those sets that do not? Why, just because the set of green things has this primitive property, should we theorize in terms of 'green' rather than 'grue'? The problem is that the realist has no good answer to this question. You might say that the answer is obvious: it is because sets with that property are *natural*—they carve at the *natural joints*—and what could be more obvious than that we should represent nature's joints? But this is to miss the point of

the objection. Be my guest—posit a primitive property of sets if you want. But play fair in naming it. Don't call it "naturalness" until you've shown that it is something that should guide our theorizing.

2. The problem of missing value

I just paraphrased Lewis' famous objection to anti-Humean conceptions of objective chance, because my objection to realism is exactly analogous. Ironic, then, that the problem with realism can be found in the writings of someone I take to be an arch realist! But ironies aside, let us review Lewis' argument so as to use it as a guide.

Lewis noted that chance is credence-guiding in the sense that rational agents should set their credences in line with the known chances; this was his "Principal Principle". For example, if a rational agent knows that a coin flip has chance 0.5 of coming up heads, then—absent inadmissible information—she should have a credence of 0.5 in the proposition that it will come up heads.¹⁰ This was Lewis' fixed point; his question was what chance could be such that it plays this role. The anti-Humean view is that chance is a metaphysically primitive quantity attaching to propositions or events, and Lewis' objection was that it is entirely unclear why such a quantity would be credence-guiding. Many quantities behave mathematically like probabilities but do not constrain rational credence in this way—areas of shapes on my table-top as a proportion of its total area is an example. So, what makes the anti-Humean's primitive quantity any different? Lewis' objection was that there is no answer. As he memorably put it: "Be my guest—posit all the primitive unHumean whatnots you like... But play fair in naming your whatnots. Don't call any alleged feature of reality "chance" unless you've already shown that

¹⁰ There is a good question of what counts as "admissible" information, but this will not matter to us here.

you have something, knowledge of which could constrain rational credence” (Lewis 1994, pp. 484).

Lewis’ remarks here are brief enough to be interpretable in a number of ways. But the argument I want to glean from him rests on three premises:

1. Chance is credence-guiding. (This is the Principal Principle.)
2. If an unHumean whatnot is credence-guiding, there must be some explanation of why it is credence-guiding.
3. There is no explanation of why an unHumean whatnot would be credence-guiding.

It follows that chance is not an unHumean whatnot. On this reading, Lewis is not so much objecting to the existence of primitive, unHumean whatnots—as he emphasizes, he is happy to give you all the unHumean whatnots you like. His point is that the whatnot is not credence-guiding, and therefore is not *chance*.

This style of argument was not new to Lewis. Consider a simple divine command theory of moral goodness, on which what makes something good is that God commands us to promote it. What is wrong with this view? Put aside the objection that God does not exist; focus instead on the famous objection that even if there were a supernatural agent, it would be utterly mysterious why we should obey its commands. This objection is based on the datum that moral goodness is *action-guiding* in the rough sense that it is something we should promote. And the thought is that just because someone *commands us* to promote something does not mean that we *should* promote it; hence the divine command theory must be false. One cannot say “But God commands us to promote it *because it is good*; that is why we should obey”. For that is to give

up the divine command theory, on which there is no such thing as moral goodness prior to what God commands; there is just what God commands.

One might respond that we're not talking about just any old agent, we're talking about *God*; and what could be more obvious than that we should do as *God* commands? But if that's how you understand "God", the question is then why the supernatural agent deserves the term; and, by extension, why the things it commands us to promote deserve to be called "morally good". This is the same style of argument over again. "Be my guest, posit all the supernatural whatnots you like", we might say, "but play fair in naming what these whatnots command. Don't call it *moral goodness* unless you've already shown that you have something that guides action." One could conceivably respond that it is a *primitive fact* that we should obey the whatnot, but that is an unattractive bullet to bite. Thus an implicit premise in this objection is that if we should obey the whatnot, there must be some explanation of *why* that is so. The objection therefore has three analogous premises:

1. Moral goodness is action-guiding.
2. If God's commands are action-guiding, there must be some explanation of why God's commands are action-guiding.
3. There is no explanation of why God's commands would be action-guiding.

We have here two arguments with a common form. The target phenomenon—chance or moral goodness—is said to have a value-theoretic or normative upshot (premise 1). This then puts a constraint on a theory of what the phenomena consists in: whatever it is, it must have this upshot. And premises 2 and 3 then imply that the proposed whatnots—unHumean "chances", or

God and her commands—do not have the upshot; hence the target phenomenon does not consist in the proposed whatnot. Thus, the arguments expose a “problem of missing value”.

Go back now to the issue of realism, the question of what makes an elite property elite. As we saw, eliteness is “theory-guiding”: the elite properties are by definition those we *should* theorize in terms of. Goodman said that if green is elite (for me), that consists in facts about my contingent social history. Imagine that someone rejected that view in favor of a “divine command” theory of eliteness, on which what makes a property elite is that God commands us to theorize in terms of it. This view, I claim, would be prone to the very same problem of missing value. Put aside the objection that God does not exist; posit all the supernatural whatnots you like. The question would be why we should obey the whatnot. Just because someone *commands us* to theorize in terms of one property rather than another does not mean that we *should* theorize that way. Once again, the objection consists of three familiar premises:

1. Eliteness is theory-guiding.
2. If God’s commands are theory-guiding, there must be some explanation of why God’s commands are theory-guiding.
3. There is no explanation of why God’s commands would be theory-guiding.

It follows that the divine command theory of eliteness is false.

My claim is that Sider’s realism is no better off in this respect than the divine command theory! The realist posits a primitive property of “naturalness” that some sets have and other sets lack. But the question is why our theorizing should be guided by this primitive property. What would explain why it is better to theorize in terms of sets with the primitive property at the

expense of others? The objection is that there is no answer. Pictorially, imagine representing sets with Venn diagrams, drawing one circle around the the green things, another around the grue things, and so on. Suppose one draws the first circle in ink and the other in crayon. Does it follow that we should theorize in terms of sets represented in ink? Of course not! The objection is that there is no more reason to theorize about those sets with the primitive property posited by the realist than there is about those sets represented in ink.

There is a temptation to respond “But the realist’s primitive property is *naturalness*; sets with this property *carve at nature’s joints*; hence it’s *obvious* that we should theorize in terms of them!” But we must not to be fooled by language. If the term ‘natural’ has value-theoretic connotations, such that it is “obvious” that we should theorize in terms of natural properties, then the question is whether the realist’s primitive property deserves the term. Calling it “naturalness” does not give it value-theoretic upshots any more than calling someone Armstrong gives him large biceps, as Lewis memorably quipped.

The problem is exacerbated when we remember that properties (predicates, sets) are cheap, including second-order properties. Along with the second-order property of *naturalness* that green has and grue lacks, there is also a second-order property of *graturalness* that grue has and green lacks. And there are *countless* other second-order properties too. They are all out there; the question is why our theorizing should be guided by *one* of them and not the others. What makes the one we call “naturalness” special? My objection to realism is that there is no good answer to this question. Don’t say that naturalness is itself *natural* and graturalness is not, for we are in the middle of trying to explain why naturalness matters!

This is the same problem of missing value. The idea is that the primitive property posited by the realist would be normatively inert, just like the commands of a supernatural whatnot. My objection to realism therefore rests on three familiar premises:

1. Eliteness is theory-guiding.
2. If naturalness is theory-guiding, there must be some explanation of why naturalness is theory-guiding.
3. There is no explanation of why naturalness would be theory-guiding.

I've modeled this on the objections to anti-Humeanism and the divine command theories above. But to be clear, I do not assume that those latter objections are successful. Perhaps there is some explanation of why an unHumean whatnot would be credence-guiding, or why God's commands would be action-guiding. I will not try to resolve those issues; I outlined those arguments just to illustrate the shape of this problem of missing value. My aim here is instead to defend this analogous objection to *realism about eliteness* and show that it raises a formidable challenge. To this end, let me discuss each premise in turn.

3. Theory guidance

Premise 1 is uncontroversial in all these problems of missing value, including our argument against realism. Still, some clarification may help. To say that *x* is *theory-guiding* is to say that *x* is a standard of "correctness" by which theorizing may be evaluated. "Theorizing" can be understood to include attitudes and activities such as forming beliefs, performing inductive inferences, giving explanations, and so on. There may be some disagreement as to the precise extension of the term but there is no need to settle this here: everyone can agree that *some* of

these attitudes and activities should be centered around properties like green rather than grue. For specificity, let us assume that the attitude of belief is an example. Say that a proposition is elite iff it is about elite properties, and say that a belief is elite iff its content is an elite proposition. Then the idea is that, along with being true, being elite is another standard of “correctness” of a belief: just as a belief can be incorrect thanks to being false, it can also be incorrect thanks to being non-elite. Compare the belief that all emeralds are green with the belief that all gremeralds are grue. Both beliefs are true. But since the latter is non-elite, premise 1 implies that it can be evaluated as “incorrect” or “getting things wrong” along that dimension. Similar remarks go for other activities like inductive inference. Say that an inference is elite iff its premises and conclusions are elite. Then the idea is that, in addition to other standards of correctness by which an inferences might be evaluated—such as being truth-preserving, reliable, rational, and so on—being elite is another standard. So understood, premise 1 is analytic: “elite” was introduced in section 1 as a label for those properties that it is correct to theorize in terms of in this sense. What is *not* analytic is whether *naturalness* is theory-guiding—that is the topic of premises 2 and 3.¹¹

For simplicity I will focus on the attitude of belief in what follows; hence the claim that eliteness is theory-guiding will be understood, for simplicity, as the claim that eliteness is a standard of “correctness” of a belief. This idea that elite beliefs are “correct” can be glossed in a number of ways. One gloss is evaluative: that elite beliefs are *better* than non-elite ones. Or, since truth and eliteness might trade-off against each other, this might be better expressed as

¹¹ The notion of a proposition’s being “about” an elite property could be sharpened, but the details will not matter for our purposes. I note only that the notion concerns the truth-conditions of the proposition or belief, not the concepts in terms of which the proposition is more finely individuated or expressed. Thus the belief that all emeralds are either grue and first observed before 3000AD, or bleen and not first observed before 3000AD, is an elite belief, since it is “about” the property of being green as I use the term. Thus my formulation of premise 1 corresponds to what Ted Sider calls the weak version of the thesis (2011, pp. 61-2), which allows that the belief just mentioned may be “correct”. The strong version of the thesis would imply that the belief is not about green thanks to the concepts used to express or individuate it.

the idea that being elite is a “good-making feature”, or an “intrinsic value”, of a belief. A second gloss is normative: that when investigating the world one *should* aim to amass beliefs that are true and elite. A third gloss concerns rationality: that a *rational agent* seeks to amass beliefs that are true and elite.¹² I will not decide how best to understand this notion of correctness. The choice presumably depends on which of these notions—better-ness, should-ness, rationality—is fundamental to value-theoretic matters in general. For our purposes, it is enough if the argument against realism goes through under some understanding of “correctness”.

Premise 1 is not the claim that we should have true beliefs about which properties are elite. Perhaps we should, but one can do this even while theorizing about non-elite properties: one might have the true belief that green is elite and grue is not, and yet go on to form non-elite beliefs such as that all green emeralds are grue. According to premise 1, these latter beliefs would still be incorrect along the dimension of eliteness. Compare with Lewis’ Principal Principle about chance: the Principal Principle does not say that we should have true beliefs about chance; it says that our credences should align with the (known) chances. One can have true beliefs about chance without satisfying this principle.

Note also that premise 1 says nothing about human motivation. It does not say that judging a property to be natural necessarily motivates one to theorize in terms of it. I mention this because in the argument against the divine command theory of moral goodness, premise 1 is sometimes expressed as the idea that judging something to be good necessarily motivates one to promote it. But that is not what I said: I just said that if something is morally good then one *should* promote it—that is all I mean by the claim that moral goodness is action-guiding. The

¹² See McDaniel (2017) for a number of refinements one might make to these glosses. To be clear, these glosses do not imply that one should never hold non-elite beliefs. If you observe a green emerald and then read the definition of “grue”, perhaps you should then believe that the emerald is grue. Still, the idea is that one’s inquiries should not be *aimed at* forming non-elite beliefs like this. Thanks to an anonymous referee for encouraging me to clarify this point.

premise could also have been glossed in evaluative terms: that actions that promote morally good things are *better* than others. Either way, there was no talk of motivation; likewise with premise 1 in our argument against realism.

That suffices to clarify premise 1. Since it is analytic, the realist must accept it. Let us move on to premise 2.

4. The demand for explanation

Premise 2 states that if naturalness is theory-guiding there must be some explanation of why that is so. The demand for explanation here is not a demand for *justification*. When we argued against the divine command theorist, premise 2 did not ask her to *justify* her claim that we should obey God; it did not ask for *reasons to believe* that this is true. It rather asked for an explanation of what *makes it* true (if it is true). Likewise in our argument against realism: the demand is not for a *justification to believe* that naturalness is theory-guiding, but an explanation of what would *make it* theory-guiding. Relatedly, there is no requirement that the explanation appeal to facts that are “internally accessible” to a ordinary people. In the argument against divine command theory, there was no requirement that an ordinary agent be in a position to produce the explanation of why God should be obeyed. Likewise, we are asking from a third-personal perspective for an explanation of what makes naturalness theory-guiding; there is no requirement that the answer appeal to facts that are “internally accessible” to a ordinary theorists.¹³

¹³ In his (1993), Hirsch attempts to “justify our intuition that there are rational constraints on how the words of a language ought to divide up reality” (p. 7). His demand for justification is similar to the demand for explanation in premise 2, though at times Hirsch seems to have in mind a more “internal” justification that a given thinker could produce as a normative defense of her theorizing.

Nor is the demand for explanation a demand for *implication*; it is not the demand for a theory that implies that naturalness is theory-guiding. Such a theory is easy to construct: one simply includes the claim that naturalness is theory-guiding as an axiom in the theory! Indeed, this is, according to Schaffer (2016b), what an anti-Humean about chance should say in response to Lewis' objection: simply state as an axiom in her theory about the unHumean whatnot that it constrains rational credence. But as I reconstruct Lewis' argument, this misses the point. The challenge is to explain *why* rational credence should be constrained by the unHumean whatnot rather than some other probabilistic quantity. Merely *stating* that it constrains rational credence is no explanation.

So understood, the second premise is hard to deny in all these arguments from missing value. If the anti-Humean about chance denies it, she is saying not just that there is a primitive unHumean whatnot; she is saying that is a brute, inexplicable fact that it constrains rational credence. She is saying that we should align our credences with her whatnot rather than any other probabilistic quantity even though there is nothing in virtue of which it has this normative significance. This is hard to believe. Unsurprisingly, anti-Humeans tend to accept the demand for explanation and respond to Lewis' argument by offering some explanation of why their whatnot is credence-guiding.¹⁴

Likewise, if the divine command theorist denies premise 2, she is saying not just that there is a supernatural whatnot issuing commands; she is saying that we should all obey *it* rather than anyone else though there is nothing in virtue of which it has this normative significance. This is hard to take seriously. A divine command theorist should accept premise 2 and instead try to offer some explanation of why their whatnot should be obeyed.

¹⁴ Hall (2004) offers a defense of anti-Humeanism along these lines.

The same goes for naturalness. There are many second-order properties (predicates, sets) out there: naturalness, graturalness, and so on. If the realist denies premise 2, she is saying that only one of them should guide our theorizing even though there is nothing in virtue of which it has this normative significance. This is equally hard to take seriously.

To be clear, there is nothing *incoherent* about denying premise 2. It is an option in logical space—indeed I suspect it is the realist’s only retreat. But I insist that we recognize it as the radical position that it is. Once again, do not be fooled by language. If it seems obvious to you that we should ‘carve at the natural joints’, the question is why the realist’s posit deserves to be called ‘naturalness’—*that* is not obvious at all. So put the term ‘naturalness’ aside. The realist claims that one of the myriad second-order properties is theory-guiding and the others are not. This is a highly non-trivial, non-obvious fact about that second-order property. The idea that there is *no explanation at all* as to why it has this normative significance is hard to believe.

One might worry that explanations must stop *somewhere*; why not stop at the claim that God’s commands are action-guiding? The answer is that not all stopping points are equal. Perhaps pain is primitively action-guiding. The thought would be that one should minimize the amount of pain in the world and there need be no explanation why this is so. It is, after all, *pain*—feel it and there is no mystery why it should be minimized. I do not know whether this is true, but it is a hypothesis we should take seriously. What is hard to take seriously, I say, is the idea that there is a unique agent such that we should all obey *it* rather than anyone else even though there is nothing in virtue of which it has this normative significance. Admittedly, I do not know how to *define* the line between those things that could reasonably be accepted as primitively action-guiding and those things that could not. But not knowing how to define a distinction does

not preclude one from recognizing clear instances. An agent's commands clearly falls on one side of the line. My claim is that with respect to theory-guidance, the realist's primitive whatnot falls on the same side too.

What about the whatnots posited by so-called "non-naturalist" views in meta-ethics? G. E. Moore, for example, proposed that moral goodness is a primitive, non-natural property. Could *that* be primitively action-guiding? In Author (forthcoming b) [REDACTED FOR BLIND REVIEW] I argue not, and that his view suffers from the very same problem of missing value as the divine command theory. This kind of objection to Moore is not new: many have objected even if there were non-natural properties out there they would be normatively inert.¹⁵ My claim here is that the very same problem arises for realism about eliteness too. I think the problem for Moore is formidable, but even if you disagree I hope to convince you that realism about eliteness sinks or swims with meta-ethical views like Moore's. This should not be surprising, for realism about eliteness is the direct analogue of Moore's view in meta-ethics: both posit a primitive whatnot that is supposed to be a source of normativity, of how we should theorize or act respectively. Still, this similarity seems to have gone unnoticed, and my aim in this paper is to expose it.

5. Constitutive explanations

That leaves premise 3, which states that there is no explanation of why naturalness would be theory-guiding. To evaluate this, it will help to focus on a specific gloss of the claim that naturalness is theory-guiding. I will focus on the evaluative gloss:

¹⁵ This is sometimes known as the "normative question"; for a discussion see Dreier (2015) and references therein. As typically formulated, the normative question rests on an "internalist" principle connecting moral judgment and motivation, but my aim in Author (2017a) [REDACTED] was to show that that principle is dispensable. As I said in section 3, the current problem of missing value does not rest on a principle about motivation either.

Natural beliefs are better than unnatural ones.

The challenge for the realist is to say what could explain this. But we must be clear on what kind of explanation is required. It would not do for her to say that natural beliefs are better because we *prefer* them, or that we *aim or intend* to form them. For then there would be no explanation of why communities with other preferences or intentions make a mistake by theorizing in gratural terms; yet the realist's central claim is that such communities do make a mistake, that they are missing "nature's joints". The point is that the realist rejects the idea that natural beliefs are better because of something about us; her central idea is that their value has its source in *naturalness* itself, independently of facts about us. As I'll put it for short, her view is that natural beliefs are *objectively* better. The question is what could explain this.

I can think of two explanatory strategies. One is to explain it in terms of the "constitutive nature" of the notions involved, such as belief, or betterness, or naturalness. The other is to say that there is something about the rich theoretical role of naturalness—its connection to laws, explanation, reference, and so on—that explains why natural beliefs are better. I will argue that neither of these strategies work. Of course, there may be some other kind of explanation I do not consider here—indeed the true explanation could be much more complex than the ones I do discuss. So my defense of premise 3 will be suggestive at best. Still, I hope to give some sense of the difficulties involved in providing an explanation, leaving it as a challenge to the realist to overcome them.

Let us start with explanations in terms of constitutive natures, and in particular one that appeals to the constitutive nature of *belief*. The idea would be that part of *what it is* for a mental

state to count as a belief is that it aim at natural propositions; since this aim is met only by natural beliefs, that is why natural beliefs are better.

This idea here is analogous to a well-known idea about truth, namely that truth is a constitutive aim of belief; that a mental state does not count as a *belief* unless it aims at truth. This is nicely expressed by Williams (1973, p. 148): “If in full consciousness I could acquire a ‘belief’ irrespective of its truth, it is unclear that before the event I could seriously think of it as a belief, i.e. as something purporting to represent reality”. More could be said about what it means for a mental state to “aim” at truth, but for our purposes the idea is clear enough. The current proposal is that something analogous goes for naturalness, and that this explains why it is better to believe natural propositions. Perhaps Sider had this kind of explanation in mind when he wrote that naturalness “is a constitutive aim of the practice of forming beliefs, as constitutive as the more commonly recognized aim of truth” (2001, p. 61).

But the proposal fails for two reasons. First, even if *truth* is a constitutive aim of belief, Hazlett has convincingly argued that *naturalness* is not. His idea is that there is nothing incoherent about a thinker forming non-natural beliefs “in full consciousness”, to use Williams’ phrase. Suppose I believe that this emerald is green, and then look at the definition of ‘grue’ and come to believe that it is also grue. My belief might be *weird*—one that only a philosopher would entertain—but in what way does it not count as a *belief*? As Hazlett (forthcoming) puts it, “although believing that p commits you to the truth of the proposition that p, it does not commit you to the jointness [i.e. naturalness] of the proposition that p” (p. 12).

But suppose for the sake of argument that naturalness were a constitutive aim of belief. The second problem is that this does not explain what the realist needs. Imagine a community of

thinkers with mental states just like beliefs with the one exception that their states do not aim at naturalness, they just aim at truth. Given our supposition, their mental states do not count as *beliefs*. Fine, call them *schmeliefs* instead. Suppose they schmelieve propositions about grue and other non-natural properties. Realism is the view that this community is missing out on the world's structure; that their mental states are worse than beliefs. But why should that be so? The claim that naturalness is a constitutive aim of *belief* does not explain this. All it explains is that these thinkers lack beliefs; it does not explain why it is better to believe than to schmelieve.¹⁶

The point is that the claim that naturalness is theory-guiding can be put without explicitly mentioning belief. Call mental states that aim at truth, like belief and schmelief, "truth-oriented". And call a truth-oriented mental state natural iff its propositional object is natural. Then the claim that naturalness is theory-guiding can be expressed thus:

Truth-oriented mental states that are natural are better than ones that are not.

The claim that naturalness is a constitutive aim of *belief* does not explain why this is so; all it explains is why truth-oriented mental states that aim at natural propositions count as beliefs.

The same goes for the related claim that it is constitutive of the *activity* of theorizing that it aims at theories about natural properties. I doubt that this is true, but even if it is it does not explain what the realist needs. For it would only explain why a community investigating the world in terms of grue is *schmeorizing* instead of theorizing; it does not explain why it is better to theorize than schmeorize. Again, the point is that the issue at hand can be put without

¹⁶ Enoch (2006) makes this point in relation to action. He discusses the idea that norms governing action flow from the constitutive nature of what action, or agency, is. And his objection is that they do not, since the constitutive nature of agency can only explain why someone does or does not count as an agent; it cannot explain why agency, rather than schmagency, has any special normative standing. I am just making the same point in relation to belief.

mentioning “theorizing”. Let “investigation” be the activity of inquiring into the world, in a broad sense that includes theorizing and schmeorizing as species. The realist says that insofar as we investigate, we should do so in natural terms. The claim that an investigation counts as *theorizing* only if it is couched in natural terms does not explain this; it only explains why a community investigating in terms of grue does not count as *theorizing*.

This lesson—like so many—is well illustrated with music.¹⁷ If your aim is to sing Jingle Bells, that induces a success-condition: your hum fulfills its aim only if it produces a certain string of notes, so you should hum those notes. If your aim is to sing Good King Wenceslas, that induces a *different* success-condition and you should hum a different string of notes. But of course it does not follow that one song is “better” than the other; it does not follow that you should sing Jingle Bells and not Good King Wenceslas! Likewise, *if* one aims to form truth-oriented mental states that are natural, this induces a success-condition: only mental states that are natural will fulfill the aim. But it does not follow that natural mental states are better than gratural ones.

I conclude that even if naturalness is a constitutive aim of belief, this does not explain what the realist needs.¹⁸ The realist might now try appealing to the constitutive nature of *betterness*, rather than belief. The idea would be that part of what it *means*—or what it *is*—for one belief to

¹⁷ Thanks to [REDACTED] for offering me this illustration.

¹⁸ For the same reason, notice, the idea that *truth* is a constitutive aim of belief would not explain why *truth* is theory-guiding either. Why then is truth theory-guiding? This is a good question but I will not pursue it here. Still, William James (1904) can be interpreted as arguing that truth cannot be a primitive property of propositions, precisely for the reason that there would then be no explanation of why it is theory-guiding. More exactly, on p. 467 he writes that “it is not self-evident that the sole business of our mind with realities should be to copy them”. And earlier on p. 463 he argued that the notion of copying is desperately unclear, giving the impression that he regards it as a primitive notion. Thus, he seems to be arguing that the idea that truth consists in standing in a primitive relation of “copying” to reality leads to a problem of missing value.

be “better” than another is for the former to be natural and the latter not.¹⁹ Could the realist say that this explains why naturalness is theory-guiding? I think not. For let me introduce the notion of gretteness thus: for one belief to be *gretter* than another just is for the former to be gratural and the latter not. Beliefs about grue are therefore gretter than beliefs about green. And now the question is: why form *better* beliefs? Why not form *gretter* beliefs instead? In virtue of what is it a mistake to form gretter beliefs? The current proposal does not explain this.

The realist might now try to explain this with constitutive claims about “should” and “mistake”: that it is constitutive of “should” that one should form better beliefs; that it is constitutive of “mistake” that it is a mistake to form gretter beliefs. But the bump is just being pushed around the rug. For one can equally introduce the notion of “grould” and “gristake”, such that it is constitutive of them that one grould form gretter beliefs and that it is a gristake to form better beliefs. The point here is general. If one says that the value-theoretic notions involved in saying that naturalness is “theory-guiding” are constitutively defined in terms of naturalness, then there will equally be a corresponding set of notions that are constitutively defined in terms of graturalness and which therefore favor gratural beliefs over natural ones.

When the realist said that naturalness is theory-guiding, her claim was that it is *objectively* theory-guiding. Suppose community A theorizes about green and community B theorizes about grue. And suppose that A uses evaluative terms like “better”, “mistake”, and “should”, while B uses the corresponding terms “gretter”, “gristake”, and “grould”. Then community A can truly say that their beliefs are *better* than B’s, that B is making a *mistake*, and that B *should* theorize about green instead. But equally, community B can truly say that *their* beliefs are *gretter* than

¹⁹ This is related to Strawson’s (1952, chapter 9) claim that it is part of the meaning of ‘rational’ that induction is rational. (Though what I say in the text is not an objection to Strawson, since he was not (as far as I can tell) attempting to argue that induction is *objectively* rational in my sense.)

A's, that A is making a *gristake*, and that A *grould* theorize about grue instead. The realist's view is that there is a further fact about which community is "really" getting things right. But on the current proposal there is no further fact. On the ground floor there are just facts about which properties are natural and which are gratural; one community organizes their theorizing around naturalness and the other community organizes their theorizing around graturalness; and that is all there is to say. On the current proposal there is nothing to break the symmetry; there is no further fact about who is "really" representing the world right.

Another way to put the point is that if the realist constitutively defines all her value-theoretic notions in terms of naturalness, her view effectively collapses into anti-realism. After all, the anti-realist agrees that there is a set of properties containing green, blue, and all the properties that the realist calls "natural". And she can agree that *our* value-theoretic notions are defined in relation to *that set*: for one belief to be better than another is for it to concern a property in that set, and so on. In this way the anti-realist can mimic the above explanation of why green is elite. How then would the realist's explanation differ? Only by adding that the set of properties corresponds to a primitive metaphysical whatnot. But then the whatnot is doing no real explanatory work; the realist's explanation of eliteness has collapsed into the anti-realist's.

The realist might now try to explain why naturalness is theory-guiding in terms of the constitutive nature of *naturalness*. The idea, roughly speaking, would be that for a property to be natural *just is* for beliefs about the property to be better than others. But this idea is unpromising for two reasons. First, it is not clear that the *realist* is in a position to offer this explanation. For the realist proposes to *explain* why green is elite and grue is not—that is, why beliefs about green are better than beliefs about grue—by stating that green is natural and grue is not. If she

then says that to be natural *just is* being the object of better beliefs, she has run a very tight circle indeed.

But even putting that aside, a second worry is that this claim about the constitutive nature of naturalness seems desperate in the extreme. The problem is not that *nothing* can be constitutively guiding—it may be that pain, for example, is by its nature action-guiding. The problem is that when it comes to a theoretical posit like naturalness, asserting out of the blue that it is constitutively theory-guiding has all the advantages of theft over honest toil. It labels the problem without solving it. Compare this with an anti-realist approach that goes through the hard work of providing an intelligible explanation in terms of the various facets of human life of why it is better to theorize in terms of green than grue. Regardless of whether this approach ultimately works, it is at least a genuine attempt to tackle the problem. For the realist to simply postulate that there is this primitive property in whose nature it is to be theory-guiding seems positively occult in comparison.

The realist might now say that the proposal concerns our *concept* of ‘naturalness’, not the worldly property of naturalness. The idea would be that one counts as a possessor of the concept “natural” only if one is willing to infer, from the claim that something is natural, to the conclusion that beliefs about it are better than other beliefs. On this view, it is not that theory-guidingness is part of the nature of the worldly property of naturalness—that is the occult view rejected above—but rather part of the possession conditions of the concept ‘natural’. I have nothing against this view; my only comment is that it concedes the argument to the anti-realist. For imagine a different community who use a concept with this possession condition to denote graturalness and who theorize in terms of gratural properties. On the current suggestion, each

community is getting things right relative to their own set of concepts, and there is no further fact about who is “really” getting things right. This is just anti-realism.

I conclude that the realist cannot explain why naturalness is theory-guiding by appeal to the constitutive natures of things. Note that the discussion here did not assume anything very specific about *naturalness*. We can therefore expect the arguments to generalize to the other realist views mentioned at the beginning. For example, the realist who takes grounding as primitive will say that grounding is theory-guiding in some sense, for example that beliefs about ungrounded properties are better than beliefs about others, or something of that ilk. For *that* realist, the problem of missing value arises when we ask what could explain why this relation of grounding is theory-guiding. And the considerations just outlined show that it cannot be due to the constitutive nature of belief. For even if it is constitutive of *belief* to aim at (say) ungrounded properties, this does not explain why mental states that achieve that aim are better than ones that do not; it only explains why the former count as beliefs. Nor can we explain why grounding is theory-guiding by appeal to the constitutive nature of betterness, or grounding, for exactly the reasons just outlined.

6. The role of naturalness

So much for explanations in terms of constitutive natures. Returning to the realist view that takes naturalness as primitive, let us turn now to the second strategy of explaining why naturalness is theory-guiding. This strategy attempts to explain it in terms of the rich theoretical role of naturalness.

What exactly is this theoretical role? A number of roles have been proposed, but they largely fall into three categories.²⁰ First, there are connections between naturalness and *nomic* notions such as laws, counterfactuals, causation, and explanation. Second, there are connections between naturalness and *metaphysical* notions such as objective similarity, duplication, and metaphysical necessity. And third, there is a connection between naturalness and *semantic* notions like reference. I will argue that even if naturalness plays these roles, this does not explain why naturalness is theory-guiding. No doubt naturalness plays other roles too, but if the three roles above do not do the required explanatory work I think it is unlikely that other roles would do any better.

Start with the nomic roles. Lewis developed a comprehensive system connecting naturalness to a variety of nomic notions. First comes the notion of law: he proposed that a proposition is a law iff it is a theorem of the theory that achieves the best balance between informativeness and simplicity, where simplicity is measured relative to a language whose basic predicates are natural. Thus, for Lewis, a law is an informative summary of the distribution of *natural* properties. Next come counterfactuals: a counterfactual is true iff (roughly) all the closest worlds in which the antecedent is true are also worlds in which the consequent is true, where closeness of worlds is determined in part by agreement in laws. Third comes causation, which Lewis defines in counterfactual terms. Then comes explanation: to explain an event is to provide information about its causal history. The resulting picture is one on which all these nomic notions are analyzed in part in terms of naturalness.²¹

²⁰ See Dorr and Hawthorne (2013) for a compendious list of roles and references to the literature that develops them.

²¹ Lewis outlines his system in his (1986; Introduction); see also Loewer (1996) and references therein for more detail. Did Lewis intend these “analyses” to be definitions of words? Or analyses in some more metaphysical sense? For our purposes it does not matter; here I use “analyses” broadly to include all these kinds of projects.

This suggests an explanation of why naturalness is theory-guiding. There is surely a value in having true beliefs about what the laws are, about what explains what, etc; let us call these “nomic” beliefs. But if Lewis is right, forming true nomic beliefs requires tracking natural properties. Perhaps this could then explain why natural beliefs are better than unnatural ones. More fully, the suggestion would be that naturalness is theory-guiding because

- (A) There is a value in nomic beliefs, and
- (B) Forming nomic beliefs requires forming natural beliefs.

To be clear, (A) is the analogue of the claim that there is a value in natural beliefs—i.e. the claim that naturalness is theory-guiding—so the reader may understand (A) in any of the value-theoretic terms listed in section 3. The basic idea is this. Take the Lewisian analysis of laws, causation, etc, in terms of natural properties, and now replicate the analysis but replace the natural properties with the *gratural* properties instead.²² Thus, an informative summary of the distribution of *gratural* properties can be called (not a law but) a *graw*; and just as Lewis used his notion of lawhood to define counterfactuals, causation, and explanation, we can use the notion of *grawhood* to define *grounterfactuals*, *grausation*, and *grexplanation*, in an exactly analogous way. Now, suppose community X’s scientists aim at uncovering the laws and explanations: they believe that all emeralds are green, that this is a law, and so on. These are their *nomic* beliefs. And suppose community Y’s scientists aim at uncovering the *graws* and *grexplanations*: they believe that all *gremeralds* are *grue*, that this is a *graw*, etc. These are their *gromic* beliefs. Both communities believe truths, let us suppose, but what (A) states is that

²² This might require defining the base of *gratural* properties so that they are a minimal supervenience basis, but I will ignore such details alone for now. See Barry Taylor (1993) for a discussion of the way in which Lewis’ system can be regenerated using a variety of different bases.

community X is doing better thanks to having *nomic* beliefs, i.e. beliefs that represent the world's *nomic* structure.

Supposing that (A) and (B) are true, could Lewis use them to explain why naturalness is theory-guiding? I think not. The problem is that the explanation gets things precisely the wrong way round: surely on Lewis' view there is a value in nomic beliefs *because* there is a value in natural beliefs. After all, what makes (A) true? Why is it better to represent the world's *nomic* structure than its *gromic* structure? For Lewis, the laws *just are* informative summaries of the distribution of natural properties; the *graws* *just are* informative summaries of the distribution of gratural properties. So if beliefs about laws are better than beliefs about *graws*, surely on Lewis' view this is because the former track *natural* properties and the latter do not. But this answer presupposes that naturalness is theory-guiding! Thus, far from *explaining why* naturalness is theory-guiding, (A) is *explained by* the fact that naturalness is theory-guiding.

To be sure, Lewis' analysis of laws in terms of naturalness does not *imply* that nomic beliefs are valuable (if they are) because natural beliefs are valuable. My point is just that it is hard to see how else the explanation could go. After all, the *only* difference between the laws and the *graws* is that the former are analyzed in terms of naturalness and the latter in terms of graturalness. If laws are important in a way that *graws* are not, it is hard to see what would make that the case other than the fact that *naturalness* is important.

The point here does not hang on the details of Lewis' particular system; it would apply equally to any realist view that (i) analyzed nomic notions in terms of naturalness, and then (ii) proposed that natural beliefs are valuable because nomic beliefs are. The point is that this combination of claims appears to undermine itself. Given (i), it seems hard to avoid the

conclusion that nomic beliefs are valuable (if they are) *because* natural beliefs are, not the other way round.²³

Of course, in drawing connections between naturalness and nomic notions like lawhood, one need not follow Lewis in analyzing the latter; one could instead use a connection to analyze of the former. Suppose one took the notion of law as primitive, adopting the view that some propositions have a primitive property of *being a law*. And suppose one analyzed the notion of naturalness in terms of law-hood—the natural properties, perhaps, just are the properties that figure in laws. In that case, *if* there were a value in beliefs about the laws, that would explain why there is a value in natural beliefs. But this strategy is not available here. Our current target are realists who, like Sider and Lewis, take naturalness to be a primitive notion; our question is how *those* realists could explain why natural beliefs are valuable. To explain it with an analysis of naturalness in terms of something else is therefore out of the question.

It should now be apparent why this problem of missing value arises for all realists, not just those that take naturalness as their primitive. Consider the realist above who starts with a primitive notion of law-hood and claims that *it* is theory-guiding. For this realist, the question is what could explain why *primitive law-hood* is theory-guiding. Could the rich theoretical role of law-hood explain this? Could we say that beliefs about laws are valuable because there is some connection between laws and naturalness, and natural beliefs are valuable? Not if those connections spring from an analysis of naturalness in terms of law-hood. For if they did, surely natural beliefs would be valuable (if they are) only *because* beliefs about the laws are. And of

²³ Hirsch (1993, pp. 79-87) explores an explanation of why naturalness is theory-guiding that appeals to a connection between naturalness and explanation. His thought is that (a) there is a value in tracking explanations, and that (b) this requires tracking natural properties, given a connection between naturalness and explanation. He stops short of fully endorsing this explanation since he raises doubts about the truth of (b) (see his discussion of the “explanatory equivalence principle”). But my point in the text is that even if (a) and (b) are granted, they still do not explain why naturalness is theory-guiding.

course there is no question of *this* realist understanding the connections as coming from an analysis of law-hood in terms of naturalness. The fact that law-hood is theory-guiding would therefore remain unexplained.

To be sure, a realist might claim that the connection between laws and naturalness does not come from an analysis of either notion. She might say that *both* are primitive notions and yet insist there is a tight connection between them nonetheless. She could then say that naturalness is theory-guiding because law-hood is, or she could say that law-hood is theory-guiding because naturalness is. But she cannot say both. Either way, she would not yet have explained why some metaphysical primitive (either naturalness or law-hood) is theory-guiding. The problem of missing value remains.

The general problem, then, is this. The realist says that some structural notion X is primitive and theory-guiding—by “structural notion” here I mean something like naturalness or law-hood or grounding, etc. The question is whether we can explain why X is theory-guiding by drawing a connection between X and some other structural notion Y which is also said to be theory-guiding. Not, we have seen, if the connection comes from an analysis of Y in terms of X, for in that case the proposed explanation gets things the wrong way round. But if the connection does not come from an analysis of Y in terms of X, it cannot (by hypothesis) come from an analysis of X in terms of Y either. Thus this realist is committed to a second metaphysical primitive in addition to X—perhaps Y, or perhaps some third notion Z distinct from X in terms of which Y is analyzed. Without loss of generality, suppose it is Y. Then we may grant that X is theory-guiding because Y is, but of course the question remains as to what makes Y theory-guiding. For this realist, the problem of missing value has just been pushed onto Y; no real progress has been made.

Return again to the realist view on which naturalness is the sole primitive. I said earlier that naturalness has been connected not only to the nomic notions just discussed, but also to a variety of metaphysical notions too. These include connections to possibility and necessity, for example that a possible world is a recombination of natural properties; connections to the notion of duplication, for example that x and y are duplicates iff there is a bijection from the parts of x to the parts of y that preserves all natural properties; connections to similarity, for example that the sharing of natural properties makes for objective similarity between objects; and others besides. Can these connections help explain why naturalness is theory-guiding? Could it be that naturalness is theory-guiding because one of these other notions—say, duplication—is theory-guiding?

I think not, for much the same reason as above. Take the connection with duplication, and suppose it comes from an analysis of duplication in terms of naturalness. Then corresponding to duplication there is also the notion of gruplication. To be duplicates *just is* (roughly) to agree on natural properties; to be grupicates *just is* to agree on gratural properties. Why then is duplication, rather than gruplication, theory-guiding? Surely it is because naturalness is theory-guiding, not the other way round. Thus, the connection with duplication can explain why naturalness is theory-guiding only if duplication is *not* analyzed in terms of naturalness. But then the result is a realist view that takes another notion—perhaps duplication itself—as primitive and theory-guiding, and the problem of missing value now arises with regards this other notion.

That leaves the connection between naturalness and semantic notions like reference. The idea here is that natural properties are “reference magnets”, somehow easier to refer to than other properties. Can this explain why naturalness is theory-guiding? Again I think not, in part for

the kind of reasons just surveyed. But the details here depend on exactly how the theory of reference magnetism is understood.

Williams (2007, forthcoming) developed a theory of reference magnetism based on Lewis' "interpretationist" account of what it is for a word to refer to something. Lewis' interpretationism starts by assigning a truth-condition to each sentence of a language on the basis of how the sentences are used. We then select a semantic theory—a theory that states (among other things) what words refer to—that generates those assignments of sentences to truth-conditions. The idea behind interpretationism is then that "*what it is* for *N* to refer to *o* (for that population) is for the selected semantic theory to entail that *N* refers to *o*" (Williams 2007, p. 2). But as Putnam (1980) argued, many different semantic theories will generate the same assignment of sentences to truth-conditions.²⁴ What then determines which is the "right" semantic theory? Perhaps standard criteria of theory-choice such as simplicity. But simplicity is relative to a language: even complex theories can be made simple when formulated in a language that takes the supposedly "complex" predicates as primitives. According to Williams, Lewis' idea was to say that the relevant notion of simplicity is simplicity relative to a language whose predicates pick out natural properties. This implies reference magnetism: a selected semantic theory will typically be one couched in natural terms; hence speakers will typically turn out to refer to natural properties (or more precisely: the most natural properties reasonably consistent with their usage).

On this view, then, the claim that natural properties are reference-magnets has its source in a claim about theory-choice: that natural theories are *better* than unnatural ones. But this is just the claim that naturalness is theory-guiding! Thus, on this approach, the claim that natural

²⁴ Putnam was not the first to point out this kind of problem; see also Quine (1964) and Davidson (1979).

properties are reference magnets is *explained by* the claim that naturalness is theory-guiding, not the other way round.

Sider (2011) develops a related theory of reference magnetism. On his view, reference is an explanatory notion: the fact that a word refers to something explains various things. He also claims that natural properties are explanatory and non-natural ones do not: ““theories” based on bizarre, non-joint-carving classifications are unexplanatory even when true.” (Sider 2011, p. 23). It follows that (at least typically) speakers refer to natural properties. Thus, on Sider’s view, reference magnetism has its source in a connection between naturalness and *explanation*. But we have already seen that the latter connection cannot explain why naturalness is theory-guiding.

There is a third way of understanding reference magnetism, on which it is constitutive of *reference* that it is fixed by a combination of use plus naturalness. On this view naturalness constrains reference not because natural properties are more explanatory (Sider), or because natural theories are better (Williams); it is just a fact about what the reference relation is that the referent of a term is that entity that strikes the best balance of naturalness and fitting usage. But it is hard to see how this could explain why naturalness is theory-guiding, for two reasons. First, even if the relation of reference is fixed by a combination of use plus naturalness, there is a corresponding relation of “greference” that is fixed by a combination of use plus graturalness. Just as natural properties are reference magnets, gratural properties are greference magnets. So, to explain why naturalness is theory-guiding in terms of reference magnetism we must say why reference is more normatively significant than greference. But surely on this approach to reference magnetism, reference is significant only because naturalness is significant—which is

of course what we are trying to explain. Yet again, we face the same problem that arose in our discussion of nomic concepts.

But second, even if it is granted that reference is more normatively significant than preference, it is hard to see how this could yield an adequate realist explanation of why naturalness is theory-guiding. For how would the explanation go? The idea would presumably be that if reference magnetism is true then natural beliefs are *easier* to form; that is why natural beliefs are better than gratural ones. But this just explains why natural beliefs are better *given our preference for an easy life*; it does not explain why they are *objectively* better. To see the point, imagine a community who inherited a gratural language from their ancestors. It would then be very difficult for *these* speakers to form natural beliefs—they would need to construct a new language from scratch, or else introduce new natural predicates with definitions that look as gruesome to them as grue does to us! For them, gratural beliefs are easier to form; hence on the current approach it follows that *for them* gruesome beliefs are better than natural beliefs. And that is contrary to realism.²⁵

7. The absence of value

This then is the problem with realism about eliteness. The realist holds that eliteness is an objective matter: that in addition to which properties are singled out as special by certain languages, cultures, and other facets of human life, there is a further fact about which properties are “really” elite; a further fact about which properties are “really” better to theorize in terms of.

²⁵ The general idea that naturalness plays a role in fixing meaning has been developed in a number of other ways too: Schwartz (2014) emphasizes its role in fixing mental content and its related connection to the theory of rationality, as does Weatherston (2013). But none of these other approaches do any better in explaining why naturalness is theory-guiding, since they all lead to the same kinds of problems as I have been discussing in this section. Clearly there is no space to discuss them all, so I will have to leave this as an exercise for the reader.

Exactly what makes these properties special varies from realist to realist. Some say that they have a primitive second-order property of naturalness; others characterize them in terms of a primitive relation of *grounding*; yet others in terms of primitive law-hood; and so on. But whichever whatnot is used to characterize the properties, it follows that those properties are “really” elite only with the value-theoretic claim that we ought to conform our theorizing around the whatnot in an objective sense. And the problem of missing value purports to show that this value-theoretic claim is baseless.

To be clear, this is not to deny *pure metaphysical realism*, the claim that whatnots like naturalness exist. There may be a primitive whatnot out there that green has and grue lacks; my claim is just that it lacks the value-theoretic upshot. But without the value-theoretic upshot, the whatnot loses much of its import. For along with the set of natural properties, there is also the set of gratural properties and countless other sets besides. There are natural joints and gratural joints. Without the realist’s value-theoretic claim, there is nothing objectively better about carving the world at its natural joints than its gratural joints. Recall David Lewis’ analysis of laws, counterfactuals, causation, and explanation in terms of a base of natural properties, and the exactly parallel analysis of grows, grounterfactuals, grausation, and grexplanation in terms of a basis of gratural properties. Without the value-theoretic claim, there is nothing objectively better about organizing science around the aim of uncovering *laws* and *explanations* than around *grows* and *grexplanations*. Sure, we may prefer thinking about natural joints; we may have collectively decided to pursue knowledge of laws and explanation. Still, without the value-theoretic claim this is just a preference: other communities may choose to carve at the gratural joints and pursue knowledge of the grows and grexplanations, and there is no further fact of the matter as to who is “really” carving the world at the right joints. But this is precisely what anti-

realists like Goodman and Rorty said all along! Thus, while my argument only targets the value-theoretic claim, that target is significant enough.²⁶

Admittedly, outside of Sider (2011) it is hard to find examples of pure metaphysical realists who explicitly endorse the value-theoretic claim. But it seems to me a pervasive undercurrent in the recent literature on naturalness, fundamentality, grounding, and the like. Consider the writings of David Lewis. If he wanted to reject the value-theoretic claim, he could have offered his account of notions like laws and explanation in terms of natural properties and then said “of course there is nothing special about natural properties, any suitable basis would yield an equally important system of notions; these are just the notions we happen to use”. But he never said anything remotely to that effect. To be sure, this does not mean that he *accepted* the value-theoretic claim: he might have omitted this kind of remark for other reasons. Still, the absence of such a remark makes it easy to read Lewis as offering a picture on which the laws and explanations and the natural properties they summarize are *objectively more significant* than the graws and grexplantions and the gratural properties *they* summarize. No surprise, then, that interpreters of Lewis paint this picture more explicitly. For example, Hall writes that, for Lewis, natural properties are special in the sense that “it is *their* pattern of instantiation among the fundamental entities that constitutes the fundamental structure of reality—the “joints” along which nature is to be ultimately carved” (2016, p. 10). This last phrase sure *sounds* like a wholesale rejection of Goodman and Rorty’s anti-realist view that there is no “one correct” way to carve the world! But without the value-theoretic claim there is no avoiding anti-realism, as we saw in the last paragraph.

²⁶ Moreover, one might now ask whether the argument can be leveraged into an argument against the metaphysical posit itself. Compare Lewis’ argument against anti-Humean conceptions of chance. Strictly speaking, all he argued was that the unHumean whatnot does not rationally constrain credence, but he clearly took this to militate against the whatnot itself. (His argument was part of his case for Humean Supervenience, which would be false if there was an unHumean whatnot.) Likewise, if the metaphysical posit of naturalness does nothing to explain how we should theorize, one might well suspect that it is, ultimately, unjustified. But I will not pursue this line of thought here.

The same goes for contemporary pure metaphysical realists who posit whatnots like grounding, fundamentality, and the like. If you do not endorse the value-theoretic claim, fine. But speak up! Let us know that there is nothing objectively more important about grounding and fundamentality than schmounding and schmundamentality; that a different community of metaphysicians (schmetaphysicians?) might focus on the latter and there would be no further fact of the matter as to who is “really” getting things right. As it stands, the literature is replete with talk to the effect that grounding and fundamentality and the like get at the “structure of reality”, or the “order of being”, or reveal the world “as it really is”. This *sounds* like an expression of the further fact that a community that organizes their theorizing about schmounding and schmundamentality instead would be doing something wrong. But without the value-theoretic claim there is no further fact. Grounding and fundamentality may get at the world’s *structure*, but schmounding and schmundamentality get at the world’s *schmucture*!

Thus, there may be various metaphysical whatnots out there, but the problem of missing value suggests that they are normatively inert. We are misled into thinking otherwise, I think, by a subtle equivocation. The term “naturalness” is sometimes used to denote a *mere* metaphysical whatnot, with no value-theoretic upshot. On this usage, I have no objection to the claim that there is a second-order property of naturalness, but as we have seen the claim is relatively impotent. But on another usage, the claim that certain properties are natural—or that the world has “natural joints”—licenses (or implies, or implicates, or connotes) the value-theoretic conclusion that our theories should reflect them. Given this usage, it is clear that *if there is such a thing as naturalness* then it is theory-guiding. But what is *not* clear on this second usage is whether there is any such thing as naturalness. By equivocating between these two uses, realism can appear far less problematic than it is. My aim in this paper has been to

dispel the equivocation and show that the question of whether the whatnot is theory-guiding is urgent.

Sider (2011) is one of the few realists who recognizes this crucial task of showing that the metaphysical whatnot is theory-guiding, but I think he still equivocates in much the same way. When arguing that naturalness is theory-guiding, he writes that “if belief aims to conform to the world, and if belief and the world are both structured, belief aims not just at truth, but also at the right structure—truth in joint-carving terms” (p. 62). The idea seems to be that our beliefs should “conform to the world”, and that there are two ways in which they can do this: they can be true, and they can match the world’s structure. But the equivocation here is similar to the above. Suppose that by “the world is structured”, Sider means just means the metaphysical claim that some things (properties, quantifiers, operators) have the primitive property we have been calling ‘naturalness’. Then the argument is invalid. For along with naturalness there is also graturalness; while natural beliefs match the natural structure, gratural beliefs match the gratural structure. Without the value-theoretic claim already in place, there is no sense in which beliefs “conform to the world” better if they are natural than if they are gratural. Alternatively, suppose that by “the world is structured”, Sider means in addition that this metaphysical posit of naturalness is theory-guiding. Then the argument is valid but trivial, since it assumes what it set out to show. Either way, the work of showing that the whatnot is theory-guiding has been left undone.

Another source of confusion lies in the tendency to forget that the anti-realist agrees that properties like green are elite. As I emphasized at the beginning, anti-realism is not the absurd view that I, NN, would make no mistake by theorizing in terms of grue at the expense of green; it is rather a view about what would *make* that a mistake (at least for me). Forgetting this leads to

the false impression that realism is the only sensible view out there, so that naturalness *must* be theory-guiding even if we know not why. Thus, Sider argues that naturalness must be theory-guiding because that would explain two related phenomena: that “scientific discovery satisfies the aims of inquiry particularly well”, and that “truths stated in extremely non-joint-carving terms... [are] comparatively worthless” (2011, p. 62). But the response is that the anti-realist does not contest these phenomena. Since *our* scientific discoveries are inevitably couched in *our* elite terms, that explains why *our* science satisfies *our* aims. Relatedly, *we* of course find truths couched in terms that are non-elite *for us* comparatively worthless. The anti-realist agrees with all this. Sider writes as if the anti-realist contests the phenomena, when in fact she takes them to be data to be explained just like the realist.

Still, can the realist claim to have the *best* explanation of the phenomenon? No, for what the problem of missing value purports to show is that the realist’s “explanation” is a non-starter. Grant that green has this primitive property that the realist calls “naturalness”; the claim is that this does not explain why green is objectively elite. Compare Lewis’ argument against anti-Humeanism about chance. Lewis can agree that *if* an unHumean whatnot rationally constrained credence, that would explain why those whatnots are action-guiding—they would guide action because they would guide one ingredient of decision-making, namely credence. But this is no rebuttal to Lewis’ argument! His argument is that it is hard to make sense of the idea that an unHumean whatnot is credence-guiding in the first place; the proposed “explanation” does not get off the ground.

Clearly, the notion of explanation is central to my argument. But what is the notion of explanation in play? The issue here is that the notion of explanation is precisely the kind of notion that a realist and an anti-realist will have different views about. So, does premise 3 state

that there is no *objective* explanation; no explanation of the kind that the realist thinks is the proper aim of inquiry? Or does it state that there is no explanation as the anti-realist understands the term; that is, no explanation relative to our own interests or cultural history?

The argument could be formulated either way. On the first way, we read the argument as a *reductio ad absurdum*. We suppose for *reductio* that realism is true; hence there are objective (ahistorical, interest-independent) facts about what explains what. Premise 2 then claims that if naturalness is theory-guiding, there must be some explanation *in that sense* of why that is. And premise 3 then states that there is no such explanation. Hence naturalness is not theory-guiding, in contradiction with our initial supposition of realism. On the second way, we make the argument from the perspective of an anti-realist. We make no supposition that realism is true; we simply use the anti-realist conception of what explanation amounts to. Thus premise 2 amounts to the idea that if naturalness is theory-guiding, there must be some explanation *for us* of why that is so, and premise 3 states that there is no such explanation. This leaves open that for other communities with different histories or concerns, there might be an explanation *for them* of why naturalness is theory-guiding. Still, it follows that *we* should not be realists. It may be that one of these formulations of the argument is better than the other, but I will not discuss that question here.

8. Anti-realism

Suppose we accept the argument in one of its formulations and reject realism. Where does that leave us? Let me finish by remarking briefly on the kind of anti-realist view we are led to (though of course I cannot give it a serious defense here).

I said that the question that divides the realist from the anti-realist is not *whether* green is elite but *what makes it so*. For the anti-realist, what makes green elite is something about us—our interests or history or culture or what have you. In this sense the anti-realist thinks that eliteness is a *relative* matter: a property might be elite relative to one community but not another. This does not mean that *everything* is relative—this is not a global relativism. The anti-realist can agree that whether something is green holds independently of us. What is relative to us, on her view, is whether green is elite.

What I just said leaves open many questions about the semantics of an utterance of the form “x is elite”. Does its truth-value depend on the interests or history of the *asserter*? Or the *assessor*? Or someone else entirely? Do such utterances express a non-cognitive attitude such as one’s approval of the interests relative to which x would count as elite? I will not try to decide these semantic questions here. Still, for clarity let us suppose that the truth of such an utterance depends on facts about the asserter. Then an anti-realist in our community will say things like:

(*) Green is elite (for us) because of facts about our interests, cultural history, etc.

But we must hear this in the right key. In uttering (*), the anti-realist is not asserting something about the “objective explanatory order” of things, for the anti-realist does not recognize an objective explanatory order. No, in uttering (*) the anti-realist is reflecting a fact about what explains what *relative to her*. Thus it would be a mistake to hear the anti-realist’s expression of (*) as an expression “from nowhere”, to use Nagel’s memorable phrase. It is rather *her* expression, correct, if at all, *for her*.

But notice that (*), so understood, does not contradict the realist's claim that green's being elite is explained *in the objective sense* by the fact that green is natural. It is consistent to think that the realist is right about what explains what in the objective sense, and that the anti-realist is also right about what explains what *in the relative sense*! This shows that anti-realism cannot just be a collection of positive claims like (*). It must also be a negative claim that rejects the realist's account of eliteness. Thus, if the realist says that green's being elite is explained (in the objective sense) by green's being natural, the anti-realist will reject that explanation (either because she denies there is such thing as naturalness, or because she denies it has value-theoretic upshots). It is only then that she offers a positive account like (*) in its place.

As we have seen, this positive account must be understood as holding relative to the anti-realist in question. One might then worry whether the positive account loses its force. After all, even if eliteness is explained by interests *for us*, it may be explained otherwise *for someone else*. Indeed the possibility looms that the anti-realist account might be correct for us and yet the realist account is correct for someone else! Does that not render anti-realism objectionably parochial?²⁷

Not necessarily, for two reasons. First, even if the positive account is relative, the negative claim need not be. Recall that we can understand the argument against realism as a *reductio*: we assume realism for the sake of argument and ask whether there is an explanation *in the realist's sense* of what makes naturalness theory-guiding, and we answer "no". So, the argument is that realism fails *on its own terms*; that it is wrong *for everyone*! Second, even if the anti-realist's positive account is a relative matter, I do not think it loses its force for that. If my

²⁷ This mirrors the classic objection to the view that everything is relative. For that view implies that it itself is relative, and does that not render it uninteresting?

interests (history, whatever) make green elite for me, it is likely that your interests (history, whatever) also make green elite for you. You and I are similar enough to share a large stock of elite predicates! And we are likely similar enough that our (relativized) explanations of what makes those predicates elite will be similar too. True, anti-realism allows that vastly different accounts may be correct for agents vastly different from us, but it is hard to see why an account that covers me and you would be lacking in interest!

Suppose we are anti-realists who claim that green is elite because of our interests and history. I said that the explanation is relative *to us*, but even that might be understating the relativity involved. For along with our *interests* and *histories*, we also have “grinterests” and “gristories”. While our interests and histories single out green as special, our grinterests and gristories are gruesome features of us that single out grue as special instead.²⁸ As anti-realists, we should not think that *interests* or *histories* are objectively more important than *grinterests* and *gristories*. Sure, we have interests and histories, and they single out green as special. But equally, we have grinterests and gristories, and they single out grue as special! So we must not make the mistake of thinking that there are certain objectively important facts about us, our *interests* and *history*, that make green special. Rather, we *say* things like “Green is elite because of our interests and history”, but only because we talk a language that revolves around those terms in the first place. Thus, when an anti-realist is pushed further and further to say why green is elite, all she can really say is “This is just the language I speak. Get off my back.”²⁹

²⁸ You might object that *I* am the kind of entity that necessarily has interests and not grinterests. Perhaps I am an *agent*, and agents necessarily have interests not grinterest. But then the point can be put thus: that there is another entity coincident with me, call it a *gragent*, that has grinterests and a gristory. I will not decide how best to put the point here.

²⁹ This is the conclusion Goodman (1955) ultimately reaches when discussing the justification of induction.

This point shows why a constructivist middle-road is not available. The constructivist would try saying that green is elite in virtue of deep, non-contingent facts about us such as our biological constitution, or the nature of human agency, or something of that ilk. Technically, this would count as anti-realist insofar as it explains eliteness in terms of facts about us. Yet the constructivist would claim that her view does not lead to the kind of cultural or linguistic relativism of Goodman. The idea would be that if eliteness consists in facts about us that cannot vary across human cultures, then it is no longer the case that two cultures carving up the world with very different concepts can both be “getting things right”. But this is a mistake. Along with our biological constitution or human agency that makes green special, there is also our griological constitution or human gragency that makes grue special. Without assuming realism, we cannot say that there are objectively important facts about biology or agency, over and above griology or gragency, that makes green any objectively more special than grue. Once again, then, the constructivist would say “Green is elite because of our biology”, but only because she already talks a language that revolves around those terms. A constructivist in a different community would truly say “Grue is elite because of our griology” because she already speaks a language that revolves around those terms, and there would be no further fact of the matter who is “really” getting things right. The constructivist will therefore end up saying just what the anti-realist did: “This is the language I speak. This is how I roll.”

This also shows why a *reductionist* form of realism is not available either. For suppose one tried saying that green is elite because of some fact F that is independent of us, but does not involve any primitive whatnot like naturalness or grounding or law-hood. Without assuming realism, we cannot say that the notions involved in F are objectively more special than their gruesome variants. Thus, if the notions in F single out green as special, the gruesome variants will equally single out grue as special. Once again, the reductionist would say “Green is elite

because of F”, but only because she already speaks a language that revolves around the terms involved in F. Like the anti-realist, the reductionist will ultimately end up saying “This is how I roll”.

If this is what the anti-realist’s view amounts to, does she deny that green is elite after all? No. She agrees that we can truly say “We should theorize in terms of green and not grue”; that is all I meant when I said she agrees that green is elite. All we have seen is that the “should” here is thin. We could instead have reserved the term “elite” for the thicker sense of “should” that the realist aims to capture, and on that usage the anti-realist would deny that green is elite. But that is just a matter of semantic decision; the substantive disagreement between the realist and anti-realist remains the same.

The anti-realist picture we are left with, then, looks like this. At its core is the negative claim that the metaphysical whatnots posited by the realist—primitive naturalness, grounding, laws, essences, and so on—are either a myth, or else are normatively inert and so do nothing to explain objective eliteness. But this is not to reject a distinction between elite properties and the rest: she says that which properties count as elite is determined by facts about us, our interests or history or whatever. But we must take her account for the thin account that it is, nothing more.

Note that the anti-realist, so characterized, need not be vocally critical of science—at least, no more critical than her realist counterpart. She recognizes that “electron” is elite and “electron or cow” is not, so she agrees that our scientists are right to theorize about electrons at the expense of other gerrymandered collections. Like any realist, she can praise the scientist’s methodological standards and criticize those who shortcut those standards, for they are *her* standards. Moreover, from her point of view other cultures get things wrong by theorizing about

other properties, so she may vocalize the kind of criticism of alternative sciences normally associates with realists—after all, whose point of view is she to use in day-to-day investigations but her own? The difference is just her interpretation of this practice. The realist claims that to get things right is to get it right “from God’s point of view”; or in more secular terms, to reflect some objective metaphysical whatnot. It is only this particular interpretation of “getting things right” that the anti-realist rejects. Hence the anti-realist is not necessarily “anti-scientific” in anything except the weakest of senses.

Nor, we may note, must she be “anti-metaphysical” or “anti-philosophical” either. Philosophers discuss the nature of mind, persons, and genders, while ignoring various gruesome alternative topics. As in the case of science, the anti-realist can agree that philosophers are right to focus on what they do; she agrees that these topics are “elite”. Moreover, she need not adopt the Carnapian line that metaphysics is “trivial”. Unlike Thomasson (2015), the anti-realist described above need not claim that the answers to metaphysical questions are analytic or can be uncovered by rudimentary conceptual analysis. She might, for example, conceive of many philosophical questions as asking for “metaphysical explanations” of a certain sort, in which case answering them may involve the difficult business of assessing rival explanations for plausibility, simplicity, generalizability, and other virtues. She can coherently engage in this practice, arguing in favor of some explanations at the expense of others, and she may even charge other philosophical communities of “getting things wrong”. Thus in her day-to-day engagement with philosophy she may sound just like a realist. What differs is her interpretation of the practice: she rejects the realist view that “getting this right” consists in reflecting some objective metaphysical whatnot.³⁰

³⁰ I say more about this anti-realist conception of metaphysical explanation (Author, 2017b) [REDACTED FOR BLIND REVIEW]. Thompson (manuscript) also develops a picture of metaphysical explanation that fits with this anti-realist picture.

9. Conclusion

I have argued that we are led to anti-realism by the problem of missing value, the problem that there is no explanation of why the metaphysical whatnots posited by realists would be theory-guiding. Let me conclude by gesturing at one way in which that problem might be avoided.

Suppose that pain is action-guiding in the sense that one should minimize the amount of pain in the world. What explains this? What is it about pain in virtue of which it ought be minimized? One tempting answer is that it is, well, *pain*. For anyone who knows how it feels, there is no mystery why it should be minimized. This idea could be packaged in a number of ways. Perhaps the idea is to explain why pain is action-guiding in terms of its phenomenal nature. Or perhaps the idea is that our phenomenal acquaintance with pain reveals why there need be no explanation of why it is action-guiding, so that we can accept it as “primitively” action-guiding. Either way, the idea is that our acquaintance with pain removes the mystery.

Could we say, analogously, that our phenomenal acquaintance with *naturalness* removes any mystery as to why it is theory-guiding? No: we are not acquainted with naturalness in anything like the way we are acquainted with pain. But perhaps we are acquainted with colors. Just as a painful experience is said to reveal the “essential nature” of pain, some think that “the intrinsic nature of canary yellow is fully revealed by a standard visual experience as of a canary yellow thing”, as Johnston puts it (1992, p. 223). This suggests the following possibility: that just as anyone familiar with pain will understand why it should be minimized, so anyone familiar with green will understand why we should theorize in terms of *it* and not *grue*. This is to give

philosophical voice to a naive reaction to Goodman's example: namely that green is *green*; of course it is privileged over grue. The same would go for other "acquaintables" such as sounds, smells, tastes, and feels. The result would be a realist view on which it is an objective fact about these acquaintables that they are theory-guiding, and that this is no mystery thanks to our phenomenal acquaintance with them. One might then call these acquaintance properties "natural", but that would be loose talk. For this is not the view that *naturalness* in Lewis' sense is theory-guiding and turns out to be instantiated by acquaintables; that view remains subject to the problem of missing value. It is rather a view that claims *de re*, of each acquaintance property in turn, that *it* is theory-guiding, and that our phenomenal acquaintance with it shows that this is no mystery.

To count as an alternative to anti-realism, the fact that green is acquaintance must hold independently of us—it must not depend on our biological make-up for example. That we happen to be acquainted with it is, of course, a contingent fact about our circumstances, but the fact that it is *acquaintable*, and that anyone acquainted with it will appreciate why it is theory-guiding, must be independent of us. For if this depended on facts about *our* particular biology, then organisms with a different biological make-up would make no mistake by theorizing in terms of properties that are acquaintance *for them*. Thus the view must be that there is an objective relation of acquaintance that only some properties can stand in. Clearly, this is not for everyone.

Moreover, the resulting realism will likely lead to a kind of idealism. For on this view the privileged properties, the ones on which one's metaphysics is built, are not the properties of fundamental physics but rather those revealed in perception. Perception reveals the maximally "elite" properties; other properties like those of physics are derivative upon these.

I do not know how popular this kind of view would be amongst contemporary realists. But it is the only realist view I can think of that *might* avoid the problem of missing value. Whether it does so I leave for another time.³¹

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