

GROUNDING
AN ABSTRACT FACTIVE APPROACH

By

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Abstract:

Recent trends in metaphysical interests have shifted heavily toward the topic of metaphysical grounding. In this paper, I put forth an account of grounding called the Abstract Factive Approach. This approach differs from other factive accounts by understanding facts as abstracta rather than worldly entities. Following this, I give an indispensability argument for grounding explanations. After presenting this account and argument, I shift topics to *metametaphysics* to give a clearer picture of the import of grounding, launching investigation into explanation and realism to discover the epistemic goals of philosophy and metaphysics. I conclude that metaphysics has no *inherent* goal before going on to motivate a metaphilosophical position inspired by Winch (1990) which offers a reasonable interpretation of the metaphysician's practice. From here, I explore the topic of realism from several angles, delicately charting a middle path between an austere metaphysical skepticism and a robust metaphysical realism. I argue to rethink global realism in terms of multiple localized theories of realism, constrained to the level of *facts*, motivating the view that realism about these local issues should be decided based on how it shapes our epistemic practices. Finally, I argue for a constructivist realist metaphysical approach, laying out the reasons to conclude that this metaphysical understanding makes the best sense of our epistemic situation.

TABLE OF CONTENTS

Chapter	Page
I. PREFACE	1
Introduction to Metaphysical Grounding	1
Detailing the Grounding Idiom	2
Structure of Thesis	4
II. GROUNDING: DEFINING THE APPROACH	6
Introduction	6
Basic Commitments of a Theory of Grounding	7
Grounding as a Strict Order	8
Grounding as non-Causal	12
Grounding as Explanation	15
Grounding as Factive	17
Skepticism about Grounding	19
Miller & Norton’s Dispensability Argument	20
The Indispensability of Grounding Argument	23
III. METAMETAPHYSICS: EXPLANATION AND REALISM	25
Introduction	25
A Taxonomy of Explanation	26
The Epistemic Goals of Metaphysics	27
The Epistemic Goals of Philosophy	29
Advancing a Constructivist Realist Metaphysical Approach	34
A Skeptical Response to Metaphysical Skepticism	35
Structure: Scientific, Metaphysical, or Both?	40
The World We Share vs. The <i>Worlds</i> We Shape	45
IV. EPILOGUE	53
Final Thoughts	53
A Second Look at Carnap	54
Challenges and Post-Defense Reflection	59
Clarifications & Wrapping Up	61

Chapter	Page
REFERENCES	63
APPENDIX	70

CHAPTER I

PREFACE

“But the question what ontology actually to adopt still stands open, and the obvious counsel is tolerance and an experimental spirit.”

— *W.V.O. Quine, "On What Exists" (1948, 233)*

1. Introduction to Metaphysical Grounding

Philosophical attitudes towards metaphysics in the 20th century were characterized by skepticism, pessimism, and often a general dismissal. The philosophical canon tells us a story of how Carnap attempted to eliminate the enterprise by showing how metaphysical disputes are reducible to meaningless linguistic discourse;¹ followed by Quine, who supposedly saved metaphysics from this attempt by arguing that a restrictive naturalistic sort of metaphysics might still be appropriate for the logical analysis of scientific findings²—though Quine himself often expressed a profound distrust in the metaphysical tradition. Nevertheless, the turn of the 21st century has seen somewhat of a revival of metaphysics along with optimism toward

¹ Carnap writes: “Having found that many metaphysical statements are meaningless, we confront the question of whether there is not perhaps a core of meaningful statements in metaphysics which would remain after elimination of all the meaningless ones [...] But actually the situation is that meaningful metaphysical statements are impossible” (1932/1959, 75-76).

² To which Quine responds: “It is no wonder [...] that ontological controversy should tend into controversy over language. But we must not jump to the conclusion that what there is depends on words. Translatability of a question into semantical terms is no indication that the question is linguistic” (1948, 231).

new metaphysical projects. The Quinean meta-ontology³ has since been issued a challenge by Jonathan Schaffer, who suggests that this method is inadequate on its own:

[T]he Quinean method will only deliver decent results if one brings to it Aristotelian presuppositions concerning what is fundamental. If one supposes that being forms a hierarchy with foundations, then one will be in a better position to determine the best theory, the canonical logic, the apt translations, the required domains, and the existence commitments of what results. (Schaffer 2009, 373)

To list out all our ontological commitments would merely leave us with an inventory of the cosmos, which offers no explanation of how the entities we are committed to stand in relation to one another. Schaffer, along with many other philosophers, maintains that this list-making is incomplete and that the goal of metaphysics should rather be to say *what grounds what*. Thus, we should turn to the neo-Aristotelian⁴ project of *metaphysical grounding*, which offers us the means to make sense of these relations, as well as revealing new possibilities for other philosophical work.

1.1 Detailing the Grounding Idiom

“Grounding” appears in several places in the history of philosophy, identifiable in thinkers such as Aristotle (Schaffer 2009, Corkum 2020), Spinoza and Leibniz (Amijee 2020), and, more recently, some 20th century phenomenologist thinkers like Husserl and Heidegger

³ Though Quine does give a criterion for an ontological commitment: “a theory is committed to those and only those entities to which the bound variables of the theory must be capable of referring in order that the affirmations made in the theory be true” (1948, 229); he does not develop a formal notion of his own meta-ontology. However, Van Inwagen (1998) has developed such an account of the Quinean meta-ontology. Later, DeLanda (2002) has coined the term “flat ontology” and Bennett (2017) “flatworldism” to describe Quine’s view (though Bennett does not attribute this view to Quine, it is quite clear that his ontology fits the description).

⁴ The neo-Aristotelian meta-ontology stands in contrast to the Quinean meta-ontology, as it is more concerned with *how* things exist than merely *what* things exist. Schaffer defines the neo-Aristotelian approach with a primary task: “to say what grounds what” (2009, 351); and method: “to deploy diagnostics for what is fundamental, together with diagnostics for grounding” (2009, 351).

(Mulligan 2020). However, this is not due to these thinkers formalizing a theory of ground as we might know it today; rather, it is a result of: their treatment of reality as structured (such as Aristotle’s investigation into fundamentality), the sort of explanations that these thinkers utilized and allowed for (such as the principle of sufficient reason granting legitimacy to metaphysical arguments), as well as the philosophical puzzles that they concerned themselves with which admitted of a deeply metaphysical nature (such as the relation between the essence and existence of entities).

Likewise, we might understand the more ad hoc, day-to-day explanations which bear the same markings as potentially tracking grounding relations. Before I lay out what a grounding relation amounts to in the next chapter, I would like to start with a brief example of how to identify one. Consider the scenario: some subject, S, is charged with perjury after presenting false testimony in court. After the trial has ended, a bystander observes two reporters arguing over the events of the court case. Reporter 1 asserts that S committed perjury *because* S has broken the law, but Reporter 2 contradicts them by stating that S has broken the law *because* S committed perjury. Which reporter is right?

To figure this out, let’s analyze the structure of these attempts at showing what explains what. *Prima facie*, Reporter 1 is wrong, and Reporter 2 is right. Intuition tells us that the explanans is S’s committing perjury while the explanandum is S’s breaking the law — the trial ended with the charge of perjury, so S’s breaking the law seems to be the further inference to draw. “Because” shouldn’t be taken as expressing a causal relation here, since there is nothing akin to billiards whacking into each other in this scenario. However, the sentence is still explanatory despite not latching onto a causal connection, so we might take “because” to be a

non-causal relation. Here are some ways this sentence could be restated to reflect a more grounding-theoretic vocabulary:

- i) S's committing perjury grounds S's breaking the law.
- ii) S's breaking the law is grounded in S's committing perjury.
- iii) S's breaking the law is in virtue of S's committing perjury.

When metaphysicians speak of grounding, this is the sort of relation to which they refer. While this example is simple, it can be modified to demonstrate the importance of conceptual tasks such as these more viscerally. Suppose instead that the reporters go on to argue about S's breaking the law and S's being a criminal. Reporter 2 says that S is a criminal in virtue of S's breaking the law. However, Reporter 1 insists that S's breaking the law is in virtue of S's being a criminal. In this modified case, Reporter 1 seems to be wrong again, but they also seem to be making a rather egregious conceptual (and moral) error by assigning priority to S's criminality. The hope is that grounding can at least show us where this sort of reasoning goes wrong.

1.2 Structure of Thesis

On a more biographical note, I would also like to briefly go over the content of my thesis, as well as the motivation for my approach. The topic of metaphysical grounding will be the main concern of the next chapter of my thesis, but discussions of the auxiliary metaphysical issues surrounding grounding will inevitably force their way into the foreground in the third chapter. Today's philosophical attitudes towards metaphysics are perhaps more sanguine, but the looming anxiety generated by the seeming futility of metaphysics still permeates philosophy departments across the globe, if only amongst the more skeptical graduate students. So, due to the apparent uncertainty of *any* meaningful metaphysical tasks, I will try to also push further to uncover what this might mean to the non-metaphysician, as well as the metaphysician. This is

perhaps an attempt to justify the task I've given myself, but the push toward 'meta'-metaphysics (or meta-ontology; van Inwagen 1998) has emerged as a popular direction in philosophy, exemplified by philosophers such as Sider (2011) and Bennett (2017), so the demand for these considerations can hopefully justify itself. Offering this treatment to grounding involves putting forth the idea of a metaphysical account followed by a lesson on how the tasks of metaphysics add something valuable to the discourse, which is the ultimate aim of my thesis.

In [Chapter 2](#), I give an account of grounding I call the Abstract Factive Approach. I take this to be tantamount to a sort of agnosticism about the conceptual accessories which we adorn the regularities of experience with. In nature, there are no causes; causes are merely abstractions which track certain regularities. But perhaps there is something in nature worth calling a cause, and perhaps thinking of the world in terms of cause and effect can be quite useful. From my perspective, the same could be said of grounding. But I don't take this to mean that we should say causes and grounds *do not exist*; rather, taking them to be abstractions can aid us in their application. In [Chapter 3](#), I demonstrate this, giving details on how we construct abstracta, or 'do abstraction', while arguing for a conception of constructivist realism that can plausibly make sense of the confused ontological status of metaphysical grounding itself. Drawing on Barnes' (2016) distinction between realist *beliefs* and realist *attitudes*, I argue for a collapse of global realism into a mosaic of localized theories of realism, motivating the view that realism about these local issues should be decided based on how it shapes our epistemic practices.

CHAPTER II

GROUNDING: DEFINING THE APPROACH

“[T]astes, odors, colors, and so on are no more than mere names so far as the object in which we place them is concerned, and [they] reside only in the consciousness. Hence if the living creature were removed, all these qualities would be wiped away and annihilated. But since we have imposed upon them special names, distinct from those of the other and real qualities mentioned previously, we wish to believe that they really exist as actually different from those.”

—Galileo Galilei, "The Assayer" (1623, trans. Drake 1960)

1. Introduction

The notion of grounding is one that is not all that unfamiliar in our day-to-day vocabulary. Consider the phrases:

- (a) *S's committing perjury grounds S's breaking the law.*
- (b) *The forest exists because these trees exist.*
- (c) *Death caps are poisonous to humans in virtue of the amatoxins they contain.*

Though these three sentences vary in topic, content, and specificity, they all share one common feature: they all attempt to explain phenomena in a way that ordinary causation cannot capture. Grounding is a formalized approach to capture and explain these relations, usually taking place as an investigation into the relative fundamentality or priority between relata. The resulting view is one of a reality that is structured or stratified into some conceptual order; though, there is controversy over how to conceive of this order. Of course, this movement has also had its

skeptics,⁵ and we should expect no Quinean to accept these claims without a proper indispensability argument, which I will be working my way towards in this chapter.

Before giving this argument, I must first provide what grounding entails. In §2, I sketch out a few basic commitments for a theory of grounding. This will proceed dialectically as a survey of the controversies that pervade the literature; however, I cannot possibly hope to settle all the debates in this field within the course of this chapter. Instead, I will aim toward the view that I find most plausible as I lay out these basic commitments, adopting an approach to grounding which understands facts as *abstracta*. In §3, I propose an *indispensability* argument for grounding while brushing shoulders with Miller and Norton's (2017) *dispensability* argument for grounding. An application of grounding, as I will argue, provides a comprehensive and robust explanatory model that not only accommodates the fruits of our best empirical endeavors but also vindicates our common ideas and intuitions about the structure of reality. This is not to suggest that such ideas and intuitions are deserving of some privileged status over what the results of empirical inquiry might yield, but it does fight against the sentiment that the subjective or constructed (or, put bluntly, the 'very human') elements of our understanding of the world are secondary or inconsequential to our best explanations.

2. Basic Commitments of a Theory of Grounding

To know when it is appropriate to speak in terms of ground, we must first determine what sort of relations are grounding relations. Typically, grounding has been understood as a sort of *dependence relation*, though disagreements abound. Wilson (2014)⁶ has argued that

⁵ Koslicki (2020) catalogues the varieties of skepticism about grounding, sorting them into 'old-school', 'first-generation', and 'second-generation' approaches. Some of these attempts include Wilson (2014), Koslicki (2015), and Miller and Norton (2017), which I address at various points in this chapter. For anti-skeptical rejoinders, see deRosset (2020) for a similar catalogue.

⁶ Also, Koslicki (2015).

grounding cannot offer us a workable unified theory, since we must employ a full arsenal of more fine-grained tools to meet those ends which the broader theory purports to accomplish. I am optimistic, however, that this is a feature rather than a bug. Provided that this arsenal has been rigorously classified and taxonomized into the many fine-grained conceptual tools⁷ that all contribute to the more coarse-grained theory of grounding, we might foresee a wide variety of applications for the broader theory in several domains. However, this is just one possible response to this criticism. Richardson (2020a) differentiates between the orthodox grounding *monist*, which prefers to keep the umbrella term “grounding” as a catch-all for the various dependences while denying the alleged coarse-grainedness, and the grounding *pluralist*,⁸ which prefers the divide-and-conquer strategy of delegating the work of grounding to the finer-grained dependences contained by the theory.⁹ I am largely in agreement with the latter view, but the way this preference manifests can be better demonstrated by what I take work in metaphysical grounding to be doing. So, the rest of this section will be devoted to sketching out a theory of grounding as a strictly ordered ([§2.1](#)), non-causal ([§2.2](#)) explanation ([§2.3](#)). I will also give a defense of and develop a version of the *factive* grounding-theoretical perspective in [§2.4](#).

2.1 Grounding as a Strict Order

Grounding is typically thought of as *strictly ordered*, i.e., grounding is *irreflexive*, *asymmetric*, and *transitive*, since any attempt to explain must follow the same structural

⁷ As I note in my commentary on hylomorphism, we might have a notion of existential dependence which applies to the material aspect of objects, while also a notion of essential dependence that corresponds to the formal aspect. For a more extensive commentary on the varieties of grounding relations, see Richardson (2020a).

⁸ For an illuminating discussion on why grounding pluralism is not heretical, see Richardson (2020b). Richardson differentiates between ‘How-Grounding’ and ‘Why-Grounding,’ giving a compelling erotetic account of why grounding is so often misunderstood.

⁹ Karen Bennett represents the grounding pluralist position as well, arguing that grounding countenances several of what she calls “building relations,” including realization, set formation, composition, and constitution (2017, 8-10). However, while Bennett takes causation to be among the building relations (2017, 67-101), I would politely demur (see [§2.2](#)).

axioms.¹⁰ *Irreflexivity*¹¹ stipulates that facts cannot obtain in virtue of themselves, i.e., facts are not self-grounding. *Asymmetry* stipulates that grounding is unidirectional; there is a definite prior and posterior subject in a grounding relation. *Transitivity* stipulates that grounding travels across chains of facts. A more formal way of taking these rules would be:

Irreflexivity - For all X: X does not ground X.

Asymmetry - For all X and Y: if X grounds Y, then Y does not ground X.

Transitivity - For all X, Y, and Z: if X grounds Y and Y grounds Z, then X grounds Z.

The resulting view starts to take on a recognizable order; namely, one where the direction of priority trends toward the most fundamental. To demonstrate how this might aid in our understanding of this sort of relation, it would be useful to illustrate its application.

One way we might apply a grounding framework is by articulating various positions with differing ontological commitments in terms of grounding. For instance, we might try tracing the ‘stream’ of priority back to its source, if there even is one. *Infinetists* say that there is no end, while *coherentists* say that chains of ground are circular and self-supporting.¹² And *foundationalists* insist that there is a definite fundamental level where chains of ground terminate in something ungrounded: the *foundation*. But if there is a bottom level,¹³ what kind

¹⁰ Glazier (2020, 123) and Thompson (2020, 260) make this important point about why grounding must assume this logical structure. The unity of grounding and explanation is at stake in the issue of strict ordering.

¹¹ Some (Jenkins 2011, Turner 2016) have attempted to undermine reasons for believing that metaphysical dependence (and grounding) is always irreflexive; however, positing that grounding is superinternal (Bennett 2011, 32-35) and non-monotonic (Audi 2012, 693) might be enough to ignore these swipes. Of course, this topic would require further development elsewhere.

¹² Morganti (2014) defends both theses, arguing that an infinitist model is internally coherent. Others, such as Bliss (2018) and Barnes (2018), have argued for the possibility of coherent chains of grounding as well, but without necessarily endorsing infinitism. Note that the coherentist thesis undermines a conception of grounding as strictly ordered by targeting the asymmetry thesis.

¹³ Talk of “levels” might alert some who insist on a flat ontology. Part of the appeal of the Quinean program is that it supposedly grants an egalitarian parity of ontological statuses among objects that might not share the same spatiotemporal scale by resisting the hierarchization of reality through a relational ontology, such as metaphysical grounding. This is the view expressed by DeLanda (2002, 49-96). However,

of knowledge or wisdom could we derive from this? *Materialists* would say that whatever this foundation is, it should concern material things. Similarly, *physicalists* assert that this fundamental level is characteristically *physical*, i.e., everything might be grounded in a set of physical facts, or a sparse set of physical entities or properties. But analysis of the order of priority relations could have other work as well. If we start ‘further upstream’ at the level of consciousness, would we still find our way back to the same foundation? Or could there be a second foundation? *Dualists* might claim that this second foundation is something characteristically *mental*. Others argue that consciousness is explained by a different application of ground—one that tracks a different type of ontological dependence. *Hylomorphists* submit the view that there is more to reality than just a *material* aspect, but also a *formal* aspect which imposes certain features onto matter, which we can analyze once we disentangle *essence* from *existence* in our notion of *ontological dependence*.¹⁴ The postulation of *hylomorphic entities*, or objects composed of a material and formal aspect, rests on these two specialized operations of ground, which we can understand as a mereological relation with metaphysical and explanatory significance between wholes and their parts. *Existential dependence*, which corresponds to the material aspect (presumably the same one the physicalist and dualist believe in), picks out instances of parts grounding wholes, e.g., Socrates existing depends on Socrates’ heart existing, so Socrates’ heart grounds Socrates in this important respect. *Essential dependence*, which

I should note that from the factive grounding-theoretic point of view I defend in [§2.4](#), it is not necessary to posit the view that derivative entities are somehow “less real” than fundamental entities or that there are “degrees of reality” that correspond to the hierarchal order of ground, as I maintain that *facts* are simply abstracta that track our observations about the world and need not be shoehorned into categories of differing ontological status. For instance: so long as they both obtain, the fact that {water exists in virtue of hydrogen and oxygen} should not meaningfully ontologically differ from the fact that {hydrogen exists in virtue of its protons, neutrons, and electrons}. So, the concern that some ontological postulates will be privileged above others along the chain of priority should not prohibit the Quinean from accepting some framework for grounding explanations. Interestingly, Schaffer (2009, 367) provides a quote from Quine (1981, 98) that seems to suggest Quine himself would have been sympathetic to a grounding physicalism view, since he believed that everything in some sense *depends* on the physical.

¹⁴ Special thanks to Neels (ms) for cluing me in on the idea of disentangling these types of dependence.

corresponds to the formal aspect, picks out instances of wholes grounding their parts, e.g., Socrates' heart is *Socrates'* heart in virtue of the heart's belonging to Socrates, so Socrates grounds his heart in this other important respect. So, the priority relations of essential dependence run *inverse* to the priority relations of existential dependence. This inverse relation might then allow for a unique possibility on the hylomorphist formulation, making way for the *priority monist* view that the foundation of reality lies not at the bottom, but at the top level of the cosmos itself.¹⁵

These applications of grounding are helpful in differentiating and facilitating understanding of the sort of commitments that are available to or presupposed by each of these approaches. This becomes apparent when we try to contrast two opposing views, such as physicalism and hylomorphism. The physicalist who is committed to the view that there is nothing 'over and above the physical' might typically appeal to some thesis about the *weak emergence* of properties, percolating upwards from the most fundamental (atomic) level and culminating in higher-order phenomena, like biological or mental activity; whereas the hylomorphist's postulation of a formal aspect of reality (over and above the material aspect) allows them to speak in terms of hylomorphic compounds, which possess *strongly emerging* unique causal powers in virtue of their essence. So, a possible physicalist explanation of consciousness might be that we have sensory experience, awareness, cognition, etc. in virtue of our brain having *A* properties and being *B* arranged, in virtue of neural tissue and chemicals having *X* properties and being *Y* arranged, *ad fundamentalis*. A full and complete explanation presumably might then be expected to "build" from the most fundamental level each time a new physical phenomenon is observed, in order to preserve some thesis about reduction.

¹⁵ This view is represented in the literature by Schaffer (2010), though he does not differentiate between notions of essence and existence in exactly this way.

Hylomorphists, on the other hand, might say that we are conscious in virtue of being a human and possessing the DNA which corresponds to the species *Homo sapiens*,¹⁶ or because the *structure* of formal reality constrains material reality in such a way as to give rise to the phenomena of consciousness.¹⁷ These explanations are available to the hylomorphist because they recognize ontological dependence as more than just existential dependence by postulating essential dependence as an operator of ground.

2.2 Grounding as non-Causal

Though it seems to be the general orthodoxy that grounding is non-causal, several philosophers have argued for views that entwine these notions, saying that grounding is just a type of causation or that grounding at least displays enough similarities that we ought to consider it a metaphysical analogue to causation.¹⁸ Raven compellingly dismantles this view, stating that:

Causal explanation appears importantly disanalogous to explanations of ground. First, ground explanations needn't involve the traditional hallmarks of causal explanation, such as a transference of power, or a non-trivial statistical relationship, or even an asymmetric counterfactual dependence, between the explaining causes and the explained effects [...] Second, there can be ground explanations without causal explanations. (2015, 7-8)

While I take this to be a sufficient set of reasons to dismiss the notion that grounding is the causation of metaphysics, Bernstein (2016) submits an additional reason to resist this view.

Typically, causation is taken to be *diachronic*, it is something that takes place *across time*; whereas grounding captures and explains *synchronic* relationships, which happen *at a time*.

¹⁶ I take this to be Koons' (2014, 2021b) view.

¹⁷ I take this to be Jaworski's (2016) view.

¹⁸ Wilson maintains that "grounding just is metaphysical causation" (2018, 1), while Schaffer (2016a) and Fine (2012) have argued that grounding should play the same role within metaphysics that causation plays within scientific explanation. For a negative rejoinder to their theses, see Bernstein (2016).

However, there can be cases of simultaneous causation that are synchronic. Running the notions of causation and grounding together will result in an unnecessary difficulty with distinguishing cases of simultaneous causation from grounding. Bernstein writes:

Consider Newton's law of universal gravitation, which holds that more separation distance results in weaker gravitational forces between objects. This is an intuitive example of simultaneous causation between objects: the separation of the objects causes both to be exactly where they are. But it is not, intuitively, a case of grounding. (2016, 24)

Recall example (c) from the introduction. If we take grounding to be some sort of metaphysical causation, then we might think that amatoxins in some sense *cause* death caps to be poisonous. However, employing the notion of *cause* here overdetermines the phenomenon, as an explanation involving constitution need not posit an *interaction* between the parts of a whole and the whole itself.

Kirchhoff and Kiverstein (2021) argue that when we consider constitution with respect to dynamical systems, positing some causal interactions is necessary to fully capture the properties and behaviors of that system, thus constitution and grounding can be thought of as diachronic. Let's call this DC, short for their term 'diachronic constitution.' They quote Ladyman and Ross to give an example of this claim:

[Water is constituted] by oxygen and hydrogen in various polymeric forms, such as $(H_2O)_2$, $(H_2O)_3$, and so on, that are *constantly forming, dissipating, and reforming* over short time periods in such a way as to give rise to the familiar properties of the macroscopic kind water. (Ladyman & Ross 2007, 21; Kirchhoff & Kiverstein's italics)

Their picture of DC relations would be troubling for my previous claim that constitution need not posit an interaction, and this could be an instance of a diachronic grounding relation that does not confuse the notion of simultaneous causation. However, I would contend that DC is actually *not constitution at all*. The cases of DC that the authors describe can be understood in

one of two ways: DC₁, where the constitution of a dynamic system is understood in terms of the causal processes described by some scientific explanation; or DC₂, where we cannot resist postulating some causal interactions when speaking of constitution over any amount of time. To demonstrate why this is problematic, I will apply an analysis of DC relations to my earlier grounding case and uncover the consequences of their thesis.

Once again, recall (c): {Death caps are poisonous in virtue of the amatoxins they contain}. If we take this to be a metaphysical explanation understood in terms of DC₁, then (c) must either explain dynamic system A: [how the toxin is *produced* inside of the mushroom], or dynamic system B: [how the toxin *interacts* with human physiology], but if this is all a grounding relation amounts to, then it is merely a needless repetition of causal scientific explanations and does not explain why these processes result in the mushroom possessing the property *poisonousness*. If we should understand (c) in terms of DC₂, then constitution is merely a variable of DC and not at all the primary subject of the thesis (which would be more related to something like *persistence*). Moreover, if the causal processes that produce the toxin in the mushroom cease, it is still the case that the mushroom continues to be poisonous, even after being cooked, desiccated, frozen, or otherwise stripped of all biological functioning. So, if (c) is understood as DC₂, then it cannot explain why the property *poisonousness* persists after the dynamical system has ceased—at least not without appealing to regular synchronic constitution. For these reasons, I maintain that constitution (and grounding, broadly) are *synchronic*, not diachronic, and thus should be taken to be non-causal. This still leaves open the question: in what way is (c) explanatory? In short, (c) is expressing a relation between facts, given to us by scientific explanations of A and B, and that this relation is what grounding picks out and tells us more about. In the next section, I touch briefly on what it means for grounding to be explanatory.

2.3 Grounding as Explanation

Grounding is often taken to be an *explanatory* relation, but there are several ways this can be understood. A minimum requirement for being explanatory is just that it serves some *explanatory interest*, or that it merely gives an account of something that we would like to have an account of, but this is vague and does not interestingly constrain the account. So, for now, let's suppose that to be explanatory is just to advance some *epistemic goal*, such as belief-in-X, understanding-of-Y, or knowledge-that-Z. This sufficiently preserves the intuition that explanation is an agent-driven activity while introducing an evaluative dimension, such as thresholds of justification for belief or intelligibility for understanding. Some may oppose this intuition, holding a standard of 'explanation' which deems it as objective. But on this account, *explaining* is still an agent-driven activity, so explanation remains as well also, if only to a trivial extent. So, proceeding cautiously, what exactly *is* the role of grounding in explaining the relations we observe? And what does this tell us about the world (or *us*)?

There are two strains of thought on the former issue: some say grounding relations *just are* explanations while others maintain that they are merely *linked to* explanation. Raven (2015) differentiates these two camps, labelling them *unionists*¹⁹ and *separatists*,²⁰ respectively. Unionists contend that the explanatory interest served by a theory of ground is fulfilled by simply giving the account of those grounding observations, whereas separatists keep the notions of *ground* and *explanation* separate. While I don't take it that holding a thesis of unionism or separatism is important for determining what kind of ontological program one must endorse, I do take this to be the exact theoretical juncture that is most receptive to the

¹⁹ Such as Rosen (2010), Fine (2012), Raven (2012), Litland (2015), and Dasgupta (2014, 2017).

²⁰ Such as Audi (2012), Correia and Schnieder (2012), Koslicki (2012), Schaffer (2009, 2012), and Trogdon (2013).

influence of our epistemic practices in philosophy. This leads me to the discussion of the latter issue: what exactly these relations imply about the way things are. The way one might get there with grounding is through some account of realism about science, metaphysics, grounding, or some permutation of the three, but since I will partly address this in my consideration of grounding skepticism, it's not necessary to go into too much detail on any particular view here; however, I would like to offer a few candid thoughts on realism, which will be fleshed out further in the next chapter.

As I covered in [§2.1](#), many philosophical projects could stand to benefit from a theory of ground, since assumptions about dependence are typically present in and inherent to many broader metaphysical notions and accounts (for instance, while the physicalist thesis recognizes a variety of dependence relations, it must necessarily exclude top-down *formal determination*, while thehylomorphist metaphysical project is characterized and distinguished by this sort of relation). Though there is still much debate to be had over what grounding amounts to, this theory can be accommodating to a variety of realist and anti-realist sentiments involving a wide range of subject matters. In other words, we can understand grounding to be a mere conceptual tool which plays a role in explanation, or we can take it to be present in the world wherever non-causal relations obtain. In the next section, I adopt a *factive* grounding ontology, partly because it is a way of compartmentalizing matters such as objectivity and representation by stipulating that *facts* are the relata of ground, and we can treat certain facts (e.g., scientific facts) in a realist or anti-realist manner. Raven defines facts as “the state of reality a true representation represents, not the representation of that state” (2015, 12), which is a firm footing for a realist thesis. However, I would like to resist such a strong notion of ‘truth’ when discussing facts—or to be clear, I believe that if we must deal in ‘truths’, we should qualify the use of the term with some sort of relativism. As many anti-realists and relativists have previously

argued, the same physical phenomenon might have differing explanations across different times and cultures with differing sociological interests driving the content of their explanations that may be no less empirically adequate; or, in the words of Quine: “there are various defensible ways of conceiving the world” (1992, 102).

2.4 Grounding as Factive

My final consideration for this account of grounding what exactly the relata of metaphysical grounding is. As I previously suggested, *facts* appear to be the most promising candidate, but there are some who insist on a *non-factive* framework for grounding (often *ontic*, where worldly entities are taken to be the relata). Raven (2015) argues that *events* and *objects* should be excluded as candidates for the relata of grounding, as the former is too concrete, and the latter is not the right sort of thing to give or receive explanations:

The diamond itself does not explain its hardness. Rather, the diamond’s ductility, plasticity, and so on, explain its hardness. Nor does the diamond itself get explained by carbon at a high temperature and pressure. Rather, the carbon’s being at a high temperature and pressure explains the existence of the diamond. (2015, 12)

However, rather than give a negative argument against the non-factive view, I will instead give a positive defense of my take on the factive view.

As I suggested in [§2.2](#), grounding statements might relate those facts that we infer from observations about things such as causal events²¹ (just as (c) relates A and B), but we also might intuitively hold that some facts obtain from non-causal operations, such as the relations between parts and their wholes (covered briefly in [§2.1](#)). To give a further example, (b) proposes the notion that facts about wholes are grounded in facts about their parts since facts about

²¹ By using the term “causal event,” I should note that I am shifting away from Kirchhoff and Kiverstein’s (2021) terminology of “dynamical system.”

forests are grounded in facts about trees; i.e., the proximity, arrangement, amount, and type of tree all might play a role in determining whether some facts about the forest obtain since, presumably, there would be no forest constituted from just one tree in each country around the world, there are no forests comprised of one singular tree, and the redwood forests of California are not characteristically known for their white oaks. We derive facts from scientific and metaphysical explanations about our observations of these causal and non-causal events (among other things),²² and we make *assumptions* about the relations between these facts. It is important that these metaphysical relations be understood as assumptions, as these relations obtain between facts irrespective of whether we believe they obtain between worldly entities, and opinions on grounding can still be present absent the theoretical framework. It either *is* or *is not* the case that these grounding relations obtain between worldly entities, but I contend that this is not as large of a concern for the factivist. This is not to say that the factive conception must be committed to saying that these relations *don't* obtain between worldly entities, simply that factivists can remain agnostic on this issue without much unease. When dealing with facts as abstracta, we can have greater certainty that these relations obtain so long as they conform to our constructed parameters and the facts have empirical backing independent of their relation to other facts. Here is the novelty of this theory of grounding; it is an attempt to square our best epistemological practices with the assumptions about metaphysics inherent to our concepts.

A worry that one might have with this view is that it allows for the inflation of entities in our ontology. Presumably, there is a nearly infinite number of conceivable facts and, as such, a nearly infinite number of entities to postulate. But I contend that this is a non-issue, as facts

²² See [§3.1](#); the scope of this section doesn't involve that I propose a particular criterion for facthood, but I take it that there are several routes to legitimacy aside from strictly scientific inquiry.

may incur ontological commitments, but they do not incur an ontological commitment to facts *de re*²³ if they are to be understood as merely abstracta that track our observations about the world (truly an ontological “free lunch”). deRosset (2012) argues against such conceptual handouts, targeting the view that derivative entities incur less of a commitment than more fundamental entities (if they incur any at all). He contends that this cannot be the case, as certain entities cannot be explained in terms of the fundamental entities after all possible reduction and elimination has occurred, i.e., economics cannot be explained in terms of physics without leaving something important out. My view of grounding skirts this issue by taking the relation of grounding to be factual entities with a special ontological status, a move which deRosset appears to be sympathetic to: “Grounding explanations still allow us to acknowledge that some facts are more basic than others” (2012, 23). I contend that this is all we need to vindicate our conception of reality as structured (as opposed to some thesis about material reduction or eliminationism about derivative entities), without cluttering up our ontology or violating Ockham’s razor. With my basic account of grounding complete, I will move on to addressing some skeptical concerns to refine the notion of grounding I have articulated in this section.

3. Skepticism about Grounding

Despite the various attempts to drum up skepticism about grounding, proponents still insist on its theoretical viability. Though we must appreciate the skeptics for tempering our ideas and reining in our ambitions, I take it to be a necessary prerequisite for the development of my account to deflate these skeptical concerns. However, in the interest of brevity, I will limit

²³ Bennett’ (2011) notion of superintentionality might help explain away worries involving infinite regresses of facts, such as the ones that might be generated by a set of facts containing each coordinate of every point along an asymptote.

my treatment of grounding skepticism to the accounts that I find to be the most interesting and constructive. My focus in [§3.1](#) will be on Miller and Norton's (2017) dispensability argument for grounding. The authors attempt to debunk²⁴ theories of grounding by showing that they are merely the result of evolved cognitive mechanisms and thus give us no reason to believe we are tracking actual synchronic relations that exist in the world. The view that they express is compelling, though I take issue with one of the premises in their argument as well as their conclusion. In [§3.2](#), I interpolate their argument to form my own *Indispensability of Grounding Argument*. This indispensability argument will serve the three-fold purpose of 1) refuting P3 of Miller and Norton's argument, 2) appealing to those who may be Quineans about ontology or otherwise compelled by indispensability arguments, and 3) establishing a firm footing for the project of grounding.

3.1 Miller & Norton's Dispensability Argument

The authors start their argument by giving reasons why we might initially take grounding to track actual worldly relations: "grounding observations are exhausted by [...] two kinds of observation: (1) We observe that certain objects, facts, or properties, are non-diachronically correlated [...] (2) We observe that there are widely shared grounding relevant judgements" (Miller & Norton 2017, 3061). They assert that grounding observations are made possible by an evolved cognitive mechanism that involves causal reasoning, a *causal detection mechanism*, which searches for modal asymmetries that can be found in diachronic (causal) relations as well as synchronic (grounding) relations (something like: if changing *X* changes *Y*, then *X* leads to *Y*). This account of how we arrive at a theory of grounding leads them to their

²⁴ I use this verbiage so that I may note the follow-up argument to their dispensability argument, the *Debunking Grounding Argument* (Miller & Norton 2017, 3078-79), or DGA for short. Though the argument I give in [§3.2](#) is applicable to both of their arguments (EDA and DGA), I will not explicitly make that case here.

thesis, the *Explanatory Dispensability of Grounding*, or EDG for short: “Our best explanation for our grounding observations appeals to the functioning of certain psychological mechanisms, and makes no mention of the presence of any relation of ground” (2017, 3061). Their *Explanatory Dispensability Argument* (EDA for short) proceeds as follows:

1. One ought (epistemically) to be ontologically committed to only those entities that are indispensable to the best explanation of our observations.
2. EDG is true.
3. If EDG is true, then grounding relations are not indispensable to the best explanation of our observations.
4. Therefore, we should not be ontologically committed to grounding relations (2017, 3078).

The authors rely on the power of P2 to make EDA salient, and much of what they have to say in defense of this premise is reasonable. However, this is not the premise that I feel compelled to reject—P3 seems to be the most dubious. Even if grounding relations are the result of evolved cognitive mechanisms that don’t track something ‘objective’ about reality, it could nevertheless still be the case that grounding relations are indispensable to the best explanations of our observations. In the case that P3 is false, P2 is trivial if true, as it does not give us any more reason to be confident about the conclusion. Moreover, to refute P3, all that is needed is to show that the consequent in this conditional is false. To this end, I will submit my own thesis on the psychological status of grounding, the *Explanatory Indispensability of Grounding* (EIG), before incorporating it into an indispensability argument in [§3.2](#):

EIG: Scientific explanations give us *facts*, and there are non-causal relations that obtain between facts that require metaphysical explanations. Whether or not they correspond to some objective reality, we still do operate with *assumptions* about these non-causal relations. Though it is likely the case that these assumptions are just the result of an evolved cognitive mechanism,²⁵ this also

²⁵ Miller and Norton (2017) assert that this causal detection mechanism is likely an evolved capacity. However, it could be argued that this mechanism does not cleanly reduce to evolutionarily psychological factors, and there are likely other notable environmental (specifically cultural) influences that give rise to causal detection. More experimental strains of philosophy might be interested in testing for the influence

explains why they still serve our explanatory interests; namely, because we are an evolved species who make such observations.

Importantly, I do not reject P2 of EDA. Instead, I will agree that our propensity to make observations related to grounding is more likely the result of an evolved cognitive mechanism rather than the result of a theory that directly describes the actual goings-on of worldly events. This is precisely the reason why a theory of grounding might serve our explanatory interests. We already *do* make assumptions about worldly relations—this much is apparent from a cursory analysis of the sort of language we use to describe certain relations.²⁶ Furthermore, the conditions for explanatory success are most likely also dependent on some human psychological background, and it is likely the case that we have evolved to favor certain kinds of explanation, including both scientific explanations as well as non-casual explanations like (a-c). However, this is not *ipso facto* reason to dispense with either.

Before giving the indispensability argument, I would like to further qualify EIG. First, I envisage my account of grounding to be broader than the natural sciences, so I would like to keep open the possibility that propositions do not necessarily need the empirical backing of a robust scientific explanation to achieve facthood. For instance, if my account were to be applied to an ethical theory like moral sentimentalism, then something like a self-report of one's own emotional state may count as sufficient for meeting the criteria for facthood in idealized

of cultural factors, such as language, on causal detection through metalinguistic analysis, and this might have interesting consequences depending on the results. For a modal relation, whether synchronic or diachronic, it's possible that some cultures might differ on which *X*'s they believe to lead to which *Y*'s. If culture is found to play a significant role, then perhaps we ought not preclude relativizing metaphysics in our theories. As I suggested in [§2.3](#), I take my account of grounding to be couched in this sort of relativism. At any rate, the general point of EIG does not rest on the *evolution* of this mechanism, *per se*, only that this mechanism is in some way the result of *conditioning*. For this reason, I will carry on with their evolutionary schema.

²⁶ See example (c) in [§2.2](#): we cannot explain why the mushroom has the particular property *poisonousness* by appealing directly to the causal processes that produce the toxin or how the toxin interacts with human physiology. For (c) to explain anything at all, it must be explaining the relation between these two causal processes (on my view, articulated in terms of facts).

scenarios. Second, by ‘assumption’ here I only mean to stipulate that we assume (or project) grounding relations much in the same way that we might assume (or project) causal relations. Considering this, we should be equally tolerant (and equally suspicious) of grounding as we are with causation.²⁷ Though, I must stress that this is the extent to which metaphysical grounding shares any features in common with causation. Finally, I would like to reiterate that pointing out the subjective, constructed, or otherwise ‘very human’ quality to some of our conceptual resources does not somehow *a fortiori* render them secondary, inconsequential, or dispensable to our best explanations. The same argument has been aimed at causation, yet very few are perturbed by anyone’s (including scientists’) continued use of the notion.

3.2 The Indispensability of Grounding Argument

Without further ado, here is the *Indispensability of Grounding Argument* (IGA):

1. One ought (epistemically) to be ontologically committed to only those entities that are indispensable to the best explanation of our observations.
2. EIG is true.
3. If EIG is true, then grounding relations are indispensable to the best explanation of our observations.
4. Therefore, we should be ontologically committed to grounding relations.

To lend support to these premises, I will defend them in order. P1 is a standard first premise of any Quinean indispensability argument. Accepting this premise should be as easy as accepting the motivation behind these types of arguments broadly. I take P2 to be relatively uncontroversial, as EIG is constructed in such a way that if you take Miller and Norton’s EDG to be plausible, then EIG is *prima facie* also plausible. Otherwise, accepting EIG should be as simple

²⁷ Insofar as we are willing to take causation to be merely a feature of our psychology rather than of the world—I take this to be the case but do not defend the view here. At any rate, my concession to Miller & Norton’s deflationary account of grounding is not a harsh concession, it is a consensus between the authors and I on this opinion.

as positing that relations between relevant entities can be explanatory and should be included in our best explanations.

In contrast, denying EIG is not as simple as deferring to EDG. Grounding can no longer be excluded from consideration due to being a feature of our psychology (*explanatory success* is most likely also dependent on some human psychological background, after all) or for presumably not obtaining between objects (as they nevertheless obtain between facts about our observations). Finally, P3 of EIG is at least more plausible than P3 of EDG, since accepting EDG does not prevent one from still utilizing these evolved cognitive mechanisms for detecting non-diachronic relations anyway; this psychological mechanism would still presumably influence one's theorizing and these assumptions would still go unchecked. Thus, grounding is indispensable because it is a framework for constraining these assumptions that we inevitably must deal with.

In the next chapter, I dig deeper into the theory of grounding through metametaphysics; that is, I ask the question: what is metaphysics doing for us, and what are we doing in metaphysics? This will involve expanding on some of the issues I've covered here, such as explanation, realism, and abstraction. I will also consider a broader view of skepticism, one which targets not just metaphysical grounding, but analytic metaphysics in its entirety. I will call this broader view *metaphysical skepticism*, but this should not be confused with the narrower *grounding skepticism* mentioned in this section.

CHAPTER III

METAMETAPHYSICS: EXPLANATION AND REALISM

“Truth, far from being a solemn and severe master, is a docile and obedient servant. The scientist who supposes that he is single-mindedly dedicated to the search for truth deceives himself. He is unconcerned with the trivial truths he could grind out endlessly [...] He seeks systems, simplicity, scope; and when satisfied on these scores he tailors truth to fit. He as much decrees as discovers the laws he sets forth, as much as designs and discerns the patterns he delineates.”

—Nelson Goodman, *Ways of Worldmaking* (1978, 18)

1. Introduction

In the previous chapter, I sketched out a detailed theory of grounding and presented an argument for its indispensable role in our best explanations within philosophy and the sciences. I also proposed an understanding of facts as *abstracta*, or conceptual entities which track our observations about reality. In this chapter, I will dig deeper into the question of what makes metaphysical explanation successful, arriving at a metametaphysical thesis which I take to be hospitable to empiricist intuitions. To do this, first I must establish that the participants in conversations on metaphysics are all engaging in the same sort of activity. While I expect that there will be many invocations of metaphysics that evade the scope of the grounding framework, I similarly expect that any non-causal relation with priority entailments can be

captured by this theory.²⁸ Instead of just presupposing that there could be a common theme among all attempts to explain, I will provide commentary in §2 to motivate this idea, in addition to setting the stage for further commentary on the status of metaphysical inquiry. Following this, §3 culminates the frameworks I have developed here into a constructivist realist ontological project. Along the way, we once again pass through the tempering flames of skepticism, exploring the challenges to conducting meaningful or illuminating metaphysical discourse. Toward the end, I will focus more attention on demonstrating a method of application for grounding analysis in issues related to social ontology.

2. A Taxonomy of Explanation

A starting assumption of my analysis will be that there is a primitive definition of ‘explanation’ that various kinds of explanatory approaches and domains make use of and further qualify. For instance, if an *explanation* is a presentation of facts that advances some *epistemic goal*, then a *scientific explanation* would be a presentation of facts that advances the epistemic goals of *science*. To follow through with this assumption, we might conclude that the metaphysical explanations (like those with which grounding concerns itself) consist in a presentation of facts that advance the epistemic goals of metaphysics, but this is more puzzling than it is illuminating. What are the epistemic goals of metaphysics? Though the scope of this question is far too extensive to be answered in full here, I can at least discuss a few options which could in turn tell us more about the kinds of explanations we might need.

²⁸ E.g., if a theory of “basing” (which serves to explain the operation underlying the word ‘basis’ in the context of ‘ϕ’ing on the basis of a reason’) turns out to be a non-causal phenomenon in some instances, then this theory of grounding could potentially prove useful in discerning the modal status of certain propositions without incurring the metaphysical commitments associated with any of the broad ontological projects I have mentioned here. The commitment that this would incur, however, would be to the idea that ‘ground’ at the very least amounts to a relation between facts (as abstract entities that track our observations about reality). For an opinionated introduction to the philosophical topic of ‘Basing’ see Blake-Turner (2022).

2.1 The Epistemic Goals of Metaphysics

To answer the question of what the epistemic goals of metaphysics *are*, we might begin by discerning how these goals *could possibly be determined*. To list a few candidate options, these goals could be set either by:

- a) *The philosopher, in a scenario like 'stakes-setting.'* The idea here is that metaphysics can be invoked to, in a sense, force others to accept a certain belief or else risk the pain of holding inconsistent or irrational views about reality.
- b) *The nature of metaphysical inquiry; we might think that there is a 'right' or 'wrong' way of participating in this sort of activity such that metaphysics generates its own axiological commitments.*
- c) *The standard practices reinforced through institutional legitimacy, i.e., the common goals for society shared by those who utilize metaphysical explanations for various ends, whether this takes place democratically through the aggregate effects of individual action or administratively through procedural bureaucracy.*

To the extent that an explanation is just a presentation of facts that advances some epistemic goal such as belief-in-X or understanding-that-Y, (a-c) might all end up being true in some important sense. However, this is more so due to the ambiguous definition of a primitive *explanation* and the unclear nature of what a metaphysical explanation should be at this point. To remedy this, I will also assume that, in at least some cases where explanation is invoked, certain explanatory approaches cannot appeal directly to the primitive *explanation* without picking up axiological commitments from higher-order classifications. So, for instance, *biological explanations* are not merely a presentation of facts that advances the epistemic goals of *biology*; rather, they aim to advance the epistemic goals of both science broadly and biology in specific, whatever those might end up being. Returning to the task at hand, we can think of a *metaphysical explanation* as a presentation of facts that advances the epistemic goals of philosophy broadly and metaphysics in specific. With this more manageable position

established, I will punt the question of what these epistemic goals are to a later section. In the remainder of this section, I would like to discuss some features and the drawbacks of this taxonomizing approach to explanation.

The biggest drawback, first and foremost, is that this model is most likely false. One can easily imagine a *metaphysical* explanation intended to bring about some *scientific* epistemic goal (rather than a philosophical one), such as belief-in-X, where X is some scientific theory that is endorsed by a consensus of scientists. An example of this might be a metaphysical (rather than a mathematical or cosmological) argument for the Big Bang. This might call to our attention certain queries concerning *appropriateness* of explanation, whether the conceptual tools, methods, and schemas of traditions of thought are well-suited to explain the associated phenomena, as well as *completeness* of explanation, whether we need extraneous accounts where we might possess others that suffice, viz., whether a metaphysical explanation is necessary for phenomena that we already have a well-suited scientific explanation of. It could be the case that this model is true, and the defeasible cases are only those in which inappropriate explanations are offered or where untenable theses about completeness are demanding more than what is required. But there are other reasons for doubting the soundness of this framework as it has been presented; namely, that it treats explanation as consisting in natural kinds that arise out of a language due to the specificity of their qualifications rather than a contrived, hypothetical activity that we tend to associate certain normative practices with. Since presumably we had societally converged on the opinion that the practices associated with explanation are valuable prior to establishing the rules for what right explanation might consist in, it seems highly unlikely that our rules for explanation can be derived from an analysis of natural language itself but must also take into consideration the background norms of each of these practices.

Rather than harp on what it gets wrong, however, it might be more productive to expound on its practical applications of the framework and my purposes for its employ. I take it to be possible for some discipline to make use of the sorts of explanations available to other (perhaps unrelated) disciplines, like a *sociological explanation* making use of a *legal explanation*²⁹ to advance the epistemic goals of sociology. Moreover, I don't see this as a real problem. Even though a thorough genealogical investigation could potentially debunk any historical or linguistic legitimacy this framework might possibly lay claim to, an artificial one will suit my purposes here. I will rely on the reader's intuition that:

rINT: If a *metaphysical explanation* is a species of *philosophical explanation*, and *metaphysical explanations* should advance the epistemic goals of metaphysics and philosophy, then it at least warrants investigation when a metaphysical explanation does not advance the epistemic goals of philosophy.

2.2 The Epistemic Goals of Philosophy

In [§2.1](#), I suggested that we can understand explanation as organized into a taxonomy consisting in a wide range of domains that all appeal to the same primitive definition of *explanation* with super- and sub-ordered groups based on their qualifications and axiological commitments. In this section, I will resume my discussion of how epistemic goals might be

²⁹ Insofar as the notion of a legal 'explanation,' in the sense I've defined it, is a legitimate form of explanation. Critical theorists have historically argued that the notion of a legal *explanation* is problematic in that the connection between legal statutes and the decisions of lawmakers is indeterminate. Charles Yablon writes, "Critical theorists seek to associate legal indeterminacy with the feeling, familiar to most law students and practicing lawyers, that doctrine can be utilized to argue any side of any legal issue" (1985). However, I should note, perhaps it is possible to use a *bad* explanations for *good* epistemic ends, such as what van Fraassen takes himself to be doing with his invocation of the mereological postulates "Sparts" and "Sworlds" to bring about his preferred formulation of empiricism (discussed in [§3.1](#)). The account of explanation put forth in this paper might even have advantages over more precise accounts despite producing strange or unintuitive artifacts such as this, depending on how these artifacts are understood.

generated in order to work out a reasonable benchmark for what constitutes a *metaphysical* explanation. This time, however, we can start at the level of *philosophical* explanation.

To begin, I should point out that there could be more immediate epistemic goals with respect to any instance of *presenting* a particular explanation. To give an example, we might hope to bring about belief-in-X in an interlocutor when presenting them with an explanation they were previously unaware of. But we might think these epistemic goals belong to the freely made decisions of individual agents presenting ideas and trying to behave rationally more so than the codified aims of any intellectual enterprise, and that relativizing the aims of any intellectual enterprise to this extent would fail to constrain its epistemic goals in any helpful or meaningful way. Therefore, identifying the immediate epistemic goals of these types of explanation as the broader epistemic goals of these enterprises (and their subordinate disciplines) fails to get the project of philosophy off the ground, and we can exclude sources such as (a) from generating the epistemic goals of metaphysics.

Next, I will consider (b), the possibility that the epistemic goals of metaphysics could be generated from the nature of metaphysical inquiry itself. This is where the taxonomizing approach proves useful; we can get a better idea of what the epistemic goals of metaphysics should be by contemplating what the epistemic goals of philosophy are, since the axiological commitments ‘trickle down’ from the broader intellectual enterprises to their more specialized sub-order classifications of explanation. Since it would be exceptionally hubristic to purport to know the nature of philosophical inquiry, this point in my commentary prompts an expedition through some philosophical literature, specifically the “Epistle to the Reader” that served as a prelude to John Locke’s famous *Essay Concerning Human Understanding*:

The commonwealth of learning is not at this time without master-builders, whose mighty designs, in advancing the sciences, will leave lasting monuments to the admiration of posterity, but everyone must not hope to be a Boyle or Sydenham; and in an age that produces such masters as the great Huygenius and the incomparable Mr. Newton, with some others of that strain, it is ambitious enough to be employed as an under-labourer in cleaning the ground a little, and removing some of the rubbish that lies in the way to knowledge. (Locke 1975, 9-10)

Much ink has been spilled over deliberating the import of this off-hand remark, and it is no original observation to note that Locke is most likely just offering an expression of humility before going on to make his assertions. However, this passage represents well two archetypes of the philosopher that have existed throughout history in one form or another: the master-builder, who conjures elaborate constructions to be marveled at, and the underlaborer, who devotes their life in service to the constructions of the master-builder. If we accept the under-laborer conception, we might then conclude that the epistemic goals of philosophy are in service of other intellectual enterprises, but I would like to resist relegating philosophy to such a deferential role among the other disciplines, especially if I have given good reason to accept the previously mentioned (rINT). Furthermore, acceptance of the master-builder conception might just lead us back to (a), which is worth not conflating with *metaphysics* generating its own epistemic goals.

Another suggestion, then, comes from Peter Winch, in his monograph *The Idea of a Social Science and its Relation to Philosophy*, in which he discusses and subsequently amends this conception of a philosopher by introducing some Wittgensteinian insight:

Philosophical issues do, to a large extent, turn on the correct use of certain linguistic expressions; the elucidation of a concept is, to a large extent, the clearing up of linguistic confusions. Nevertheless, the philosopher's concern is not with correct usage as such and not all linguistic confusions are equally relevant to philosophy. They are relevant only insofar as the discussion of them

is designed to throw light on the question how far reality is intelligible and what difference would the fact that he could have a grasp of reality make to the life of man. So we have to ask how questions of language, and what kinds of question about language, are likely to bear on these issues. To ask whether reality is intelligible is to ask about the relation between thought and reality. (Winch 1990, 11)

Thus, we are supplied with a new conception of the philosopher, one which I will refer to as the illuminator,³⁰ in which the primary epistemic goal of philosophy is to bring about understanding-of-Y, where Y refers to the rules and norms which govern both meaningful action and its translation to a natural language. In short, philosophy of science aims to make the behaviors of scientists intelligible to both scientists and non-scientists, aesthetics does the same within the domain of art, philosophy of religion has its own scope, etc.³¹

Continuing the Winchian program, metaphysics and epistemology are better understood as toolboxes with their own specialized tools within the conceptual resources available to philosophy, rather than autonomous disciplines with their own subject matter. While the subject matter of philosophy is in some sense 'set' by the other disciplines, it is not because the other disciplines demand this of philosophy, but because philosophers are in the business of 'throwing light' on certain human actions. Winch does not naïvely presuppose that the subject matter of philosophy is generated purely out of *linguistic* phenomena, but that the

³⁰ Note: I chose this terminology to commemorate the delightful verbiage of "throwing" light on a subject and the hilarious illustration it calls to mind for how we operate in philosophy.

³¹ As Winch points out, scientists, theologians, and artists all are comparable to the philosopher in that they are also concerned with making things intelligible; however, they are more so involved with making the world intelligible through various interpretive lenses (conferred by their epistemic goals) rather than making intelligible our respective disciplines through an analysis on what goals those very actions are aimed towards and how they are achieved: "[...] the philosophy of science will be concerned with the kind of understanding sought and conveyed by the scientist; the philosophy of religion will be concerned with the way in which religion attempts to present an intelligible picture of the world; and so on." (1990, 19) Assuming the truth of Winch's proposed understanding, the prize for most prescient philosopher of *life* would have to go to the cited Mr. Mallock, who makes his appearance at the beginning of William James' "Is Life Worth Living?", to which his response to the titular question is that "it depends on the *liver*" (James 1895, 1).

norms governing meaningful behavior deserve elucidation as well. A helpful example in understanding where this delineation might offer clarity comes from his discourse on the free-spirited anarchist and the monastic monk. These two lifestyles can be said to “follow rules” in the same sense of the phrase; however, if one were to understand this to mean that the anarchist lives according to a strict set of explicitly stated, religiously motivated injunctions, then they would be missing the sense in which this statement is saying something profound. They both “follow rules” to the extent that they are exhibiting meaningful behaviors which can be made intelligible to an observer through language, even if this were to entail subverting a narrower conception of ‘rule’ in the process.

Furthermore, the definition of a metaphysical explanation that results from this conception might be ‘a presentation of facts that advances the epistemic goals of philosophy (which involve the bringing about of intelligibility among a wide range of subject matters) while utilizing the tools of metaphysics.’ Though the illuminator conception of philosophy is an attractive option for locating the epistemic goals of philosophical explanation in (b), I would submit that it is unconvincing as a descriptive theory, at least in the case of metaphysics. The history of metaphysics is filled with arguments typified by (a), and one could hardly fall under criticism for judging that the practice is, as it has been carried out for the past two millennia, more obscurantist than illuminating. However, it is worth noting what the illuminator conception gets right. First, it seems *prima facie* plausible to suppose that the epistemic goals sought by explanations in ‘pure metaphysics’, or in virtue of being a *metaphysical* explanation, would just be laying the groundwork for future analytic investigation while simultaneously bringing about something like understanding-of-Y or knowledge-that-Z (where Y could stand for a method of practical application for the tools of metaphysics and Z could amount to an awareness of the function of certain logical operations of a metaphysical conceptual tool, such

as grounding). Second, it seems equally correct to say that the epistemic goals which “pure metaphysics” incurs in virtue of being a type of philosophical explanation would involve throwing light on the rules that guide the meaningful behavior of the metaphysician. Finally, the scope and subject matter of philosophy is not arbitrarily restricted by the illuminator conception itself; it is restricted by the wandering spotlight of human interest and the various types of meaningful behavior that emerge from it.

By process of elimination, however, it seems that (c) is the most likely source for generating the epistemic goals of metaphysical explanation and, by extension, grounding. This view supposes that to the extent that there are any epistemic goals that metaphysical explanation is oriented towards, it is a function of the attitudes of individuals and the shaping force of our societal institutions giving rise to a generally agreed upon aim. However, this is only a descriptive theory of how these aims are generated and does not preclude the possibility of metaphysics being invoked to advance the epistemic goals of any discipline or individual. So, the possibility of converging on a prescriptive theory, such as the illuminator conception that typifies (b) (which I prefer) or the more ad hoc ‘hammer of philosophy’ approach that typifies (a), remains a live option for any institution or individual to settle on.

3. Advancing a Constructivist Realist Metaphysical Approach

In the previous section, I sketched out a taxonomy of explanation for the purposes of discerning what sort of epistemic goals a metaphysical explanation might be interested in advancing, mainly through a survey of how these aims might be generated. Among the available sources, I have put forth (c) as a descriptive theory: that epistemic goals are set institutionally through ideological consensus or bureaucratic action. While informative, this tells us little about why any specific epistemic goal of *metaphysics* is worth advancing in the first place. To answer

to this, I have also presented (b) as a sort of guiding principle, the philosopher as *illuminator*, a concept inspired by the philosophy of Peter Winch.

In this section, I would like to dig a bit deeper into the role of metaphysics in our explanatory practices, dispelling some of the skepticism that surrounds the discipline in [§3.1](#). I will try to show that to do *philosophy*, we will need metaphysics. In [§3.2](#), I provide some of my own skeptical remarks by broaching the question of metaphysical realism. This will involve comparing the different *structures* alluded to by *structural realism* in realist understandings of scientific and metaphysical theories. Finally, in [§3.3](#), I will present a constructivist picture of grounding which might resolve the tensions covered in [§3.2](#). This will offer some clarifications on how and why to understand facts as abstracta, give a process for abstraction, and develop a view of realism which stresses the importance of realist *attitudes* over beliefs.

3.1 A Skeptical Response to Metaphysical Skepticism

In this section, I will be exploring some opposition to my analysis on metaphysical explanation; namely, I will be exploring the view that metaphysics has nothing to offer us outside of mere belief, i.e., nothing close to approximating knowledge or understanding. There are several ways that this sort of skepticism manifests, from the pessimism of Carnap and Quine to attempts to ‘naturalize’ metaphysics (e.g., Ladyman & Ross 2007). Bas van Fraassen (2002) submits a compelling worry about metaphysicians’ tendency for a certain method he calls “analysis by postulate.”³² The worry here is that since the entities that the metaphysician asks us to accept into our ontology are not the ordinary objects of our experience, but rather an

³² He contrasts the metaphysician’s tendencies for speculation with the empiricist’s tendencies, which he lists as: affirming those methods which call us back to experience, rebelling against theory, maintaining ideas of epistemic rationality, and being guided by an admiration of science (van Fraassen 2002, 47), among others.

imagined set of supposed 'necessary preconditions' admitting of a merely artificial logical consistency (i.e., metaphysical postulates), that metaphysics is ultimately a useless endeavor amounting to nothing over and above pure speculation and of no more importance than mere "children's puzzles" (van Fraassen 2002, 29-30). If this is the case, then the 'toolkit' analogy might make grounding seem no more important or useful than a box of crayons. This is a rather harsh judgment and, to avoid injury to my account, must be dealt with.

A first pass at dealing with this objection might be *tu quoque*, pointing out how van Fraassen, in holding this position, is holding a *metaphysical* position. But this is not the most serious problem for the metaphysical skeptic, as they could easily just agree while pointing out that metaphysicians typically believe their accounts to be true to the exclusion of at least *some* other accounts. So, it is reasonable to just think of metaphysical skepticism as a position to be believed at the exclusion of *all* other accounts.

We could press further by noting that this method of 'analysis by postulate' was used in establishing van Fraassen's metaphysical position with talk of 'Sparts' and 'Sworlds,' (2002, 25-27). So, if this method bears untrustworthy fruits, how could we be expected to trust the conclusion of van Fraassen's argument? But this also won't do, as the metaphysical skeptic could simply respond by stating that the only good metaphysical task undertaken *is* a demonstration of their methods and where they are misguided. Most importantly, van Fraassen isn't asking us to sincerely accept 'Sparts' and 'Sworlds' into our ontology, but merely using them as tools to illustrate a point.

This is where I would like to pause and consider van Fraassen's methods and how they stack up against what I've advocated for here. I have argued for a conception of grounding that relates *facts*, which can be understood as abstract entities that track our observations about

reality ([Ch.2, §2.4](#)). Though I will not offer much detail here on what criteria I have in mind for facthood, I will argue later in this section that ontological naturalism might play a role. I have also tried to show that grounding can be useful in distinguishing various accounts in philosophy and metaphysics ([Ch.2, §2.1](#)) and offers us an avenue for non-causal explanation ([Ch.2, §2.2, §2.3](#); [Ch.3, §2](#)). I have argued that we are not committed to these facts *de re* ([Ch.2, §2.4](#)), and for the possibility of a projectivist interpretation of non-causal relations ([Ch.2, §3.1](#)), i.e., that if grounding cannot be found in nature, it is no less found in our experience. For reasons I covered in ([Ch.2, §3.2](#)), a psychological interpretation of grounding does not render it dispensable. Furthermore, I have attempted to show that metaphysics, though historically arcane, can serve a more illuminating purpose if this is willed by a force powerful enough to enact it, such as societal trends or academic institutions.

What I am insinuating with this pause is not that van Fraassen is incorrect, but that his use of metaphysics *illustrates the point well*, and this undermines the metaphysical skepticism. If we can trust the conclusion of van Fraassen's argument and unproblematically arrive at *this* metaphysical position, then it must be exemplary in some way that all metaphysical explanations should be. Or, on van Fraassen's terms, if 'analysis by postulate' truly is the problematic feature,³³ then his account must exclude this. But these statements are not true in virtue of his abstention from the practice itself—only by his refraining from sincerely asking the reader to postulate 'Sparts' and 'Sworlds' in their ontology. If this is to be the exemplar-making feature of a non-problematic metaphysical account, then I daresay this is what my account offers.

³³ Bennett (2016) gives a very compelling argument against the style of argument which suggests that there is some problematic feature of metaphysics, so it would be just as easy to defer to this article to make this point. Conveniently, Bennett also endorses a "toolkit" conception of metaphysics (2016, 32-33).

However, I would like to go even further, claiming that insofar as my characterization of a metaphysical explanation is correct, van Fraassen's account of metaphysical skepticism is somehow errant. Metaphysics, as I have portrayed it, is just concerned with the bringing about of understanding or knowledge through the conceptual resources of metaphysics, (resources which don't necessarily need a worldly ontological status so long as they 'prove their point'). If beliefs are incurred as a result of the process of metaphysical inquiry, then we can only enjoin the reader to not let this be a blind faith in just those postulates, while explaining ourselves such that we are not misunderstood while we sharpen our tools in exercises of pure metaphysics. But if we are to understand the metaphysical skeptic as objecting to this sort of metaphysics and also regard them as a serious philosopher, then, to give an analogy, it might seem as if we are insisting that they have hammered the nail in with their fist, despite clearly having used the hammer. Fortunately, I don't think anyone is objecting to this practice, at least not explicitly.

So, what then is the point of metaphysical skepticism? For van Fraassen, narratively, it seems to operate as a motivation for the view of empiricism he endorses, but I would hesitate to condemn it to falsehood just because I disagree. Rather, I would pose the question: is it possible to do philosophy without metaphysics? If it is possible, then I would count it as worthwhile. The sciences may trend towards consensus, but philosophy tends towards diversity of thought or even a 'filling out of the conceptual landscape.'³⁴ This is perhaps evident by the difference in our engagement with philosophical and scientific literature; though we may be counted as rational for rejecting the majority of the philosophical positions endorsed today (for

³⁴ The idea here is that it is valuable to represent a position in the literature even when no one endorses it if for no other reason but to demotivate it before its inception. As a quick note, I take this to be a considerable oversight for the overall thesis presented in Winch's monograph (1990); that being that philosophy ought to facilitate the jobs currently handled by the social sciences. There are ways in which science is incredibly useful precisely because it trends toward consensus, a feature which philosophy typically lacks. While Winch still offers much illuminating insight, it is not clear that philosophy and the sciences cannot both work toward explaining social phenomena.

if one held all, they would surely believe a contradiction), we would definitely be acting irrationally in rejecting the majority of the scientific endorsed today. But perhaps it is impossible to do *philosophy* without metaphysics in the same sense in which epistemology loses its characteristic features in Quine's conception of a *naturalized epistemology* (1969). Similarly, attempts to subsume metaphysics into the natural sciences (e.g., Ladyman & Ross 2007) might just end up denigrating philosophy to the level of 'underlaborer' in service of the 'master-builders' of science while downplaying the importance of novel *philosophical* accounts.³⁵ Whether one is sympathetic to this deferential conception of philosophy over an illuminator conception will turn on the question of whether there is such a thing as a legitimate 'philosophical explanation,'³⁶ but I will not belabor that point any further. Instead, I would like to draw a moral.

Metaphysical skepticism has existed in a notable form throughout history (van Fraassen identifies *empiricism* as the torchbearer of this position; 2002, 31); nevertheless, metaphysics has persisted. Why? Though it is easy enough to construct an argument for the legitimacy of metaphysics, it might be harder to admit that the skeptics still have a point, one that bears repeating often: the success of the sciences bears great normative weight on our ontology. With each iteration, metaphysicians can either decide to either cede to the demands of the

³⁵ To be clear, the metaphysical skeptics that I mention do wonderful philosophical work. I only disagree that they don't employ metaphysics. If things are as Winch suggests, and metaphysics and epistemology are the two toolsheds of philosophy, then the philosopher can boycott metaphysics simply by spending more time in the epistemological shed, as van Fraassen often does. But he cannot speak of isomorphisms between scientific models and reality without at least invoking a spark of the metaphysical imagination. Ladyman and Ross' (2007) project of naturalizing metaphysics is not abused with the notion that they are not doing metaphysics, but the ideological gloss just gives the impression that they are wearing "to the exclusion of *all* other accounts" on their sleeve.

³⁶ Godfrey-Smith makes a similar point with respect to 'naturalizing approaches' but puts it in terms of whether there are legitimate philosophical *questions*: "If we think that philosophical questions are important and also tend to differ from those asked by scientists, there is no reason to expect a replacement of epistemology by psychology and other sciences. Science is used as a resource for philosophy, not as a replacement" (2003, 151).

metaphysical skeptics by adhering to the best empirical practices of the day—or rebel against the sciences. We might derive something like an *optimistic meta-induction* for metaphysics if we affirm the former option—so long as we are guided by an appropriate degree of ontological naturalism, metaphysics need not be ruled out by empiricism. Though many traditions might claim that the degree of naturalism they hold to is sufficient, I at least take the *naturalizing* approaches to be too austere, while approaches which see metaphysics as ‘getting at a deeper level of reality that science cannot penetrate’ often inflate the importance of metaphysical inquiry. Adjudicating the exact measure of appropriateness for a commitment to naturalism, however, might be too daunting a task to undertake, so instead I will try to throw some light onto the question of realism.

3.2 Structure: Scientific, Metaphysical, or Both?

Most of my engagement with the skeptical literature thus far has been defensive, and the considered attempts to disrupt and demotivate the project of grounding have been largely unsuccessful. In this section, I will be putting forth my own skeptical remarks about grounding; however, I have no desire to disrupt or demotivate the movement. In [Ch.2, §2.3](#), I briefly addressed how it is not necessary to establish an opinion on the reality of factive grounding for the account to be operable, since facts are abstracta that track our observations about reality which we can treat in a realist or anti-realist manner. While this is still very much the case with grounding for reasons I will get into later, the framework for explanation that I have established demands that I make some assertion on the matter, or else I risk positing a notion too facile to be truly explanatory or epistemically worthwhile. What I have presented thus far can be criticized on the basis of how little these propositions are allowed to make contact with the world (or, in what way they do). We use grounding to explain, and explanation amounts to advancing certain epistemic goals—so what do grounding explanations actually tell us *about the*

world? If a factive approach to grounding can just as easily identify facts as “the state of reality a true representation represents, not the representation of that state” (Raven 2015, 12), then what is the motivation for an account that takes facts as abstracta?

To begin, let’s start with definitions. We might take these facts to be abstracta in virtue of being *abstractions*, or a selection of certain aspects (of phenomena), and deletion of other aspects, for thematic representation.³⁷ But what can we say of these aspects? —are they not situated in reality? Let us first define ‘reality.’ To do this, the grounding literature has already produced a canonical starting point. Kit Fine (2001) argues for a primitive conception of ‘reality,’ one which we can make sense of as intrinsic to what we experience while not necessarily non-perspectival:

One might think of the world and of the propositions by which the world is described as each having its own intrinsic structure; and a proposition will then describe how things are in themselves when its structure corresponds to the structure of the world. Thus it is this positive idea of the intrinsic structure of reality, rather than the comparative idea of reduction, that should be taken to inform the relevant conception of what is fundamental or real. (Fine 2001, 25)

While qualities such as color would be absent from this conception of reality, this does not mean that propositions about color have no reference. Since we are to understand reality as having a certain *structure* that we can all be made privy to, we might just understand talk of color as a proxy conversation for whatever is fundamental to our experience of color, and that

³⁷ I get this definition from van Fraassen (2002, 148), in his discussion of Newton’s representation of the solar system. He poses the question: “But does abstraction consist simply in deletion of certain aspects, the ones not selected for representation? If so, abstraction can presumably introduce no inaccuracy or falsehood. In that case, what it produces is the truth remaining after we ignore some of the truth to be found. But this irenic account of Newton’s induction, his rigorous derivation from the phenomena, is too simple and too comforting, too good to be true” (2002, 148). Given what I will argue in §3.3, I will say this: a constructivist realist could contest that this characterization of abstraction takes for granted certain aspects which are *an addition of* certain aspects, such as meaningful behaviors and the norms governing them as well as the constructed systems of description selected to represent the phenomena.

which is fundamental constitutes all of reality. And, of course, metaphysicians can unearth this architecture with an application of grounding metaphysics. The fundamental, or ungrounded, is to be identified with the real; the derivative, or grounded, is to be identified with the unreal (and further qualified in terms of the real); and propositions which are neither real nor unreal are expressing something unreal (the distinction is inapt).

On the face of it, there's nothing wrong with divvying up the world this way. This is an intuitive way of conceiving reality, especially to the metaphysician who spends a lot of time thinking about fundamentality. And any theoretical cost, such as an implausible eliminativism of derivative entities, could be accounted for with further theorizing. But what do we learn from these distinctions? If we are to understand metaphysics as I have described it, Fine is simply honing the tools in the conceptual toolshed of the philosophical commons, not making any actual assertions about an objective reality but rather leaving it up to those metaphysicians which will later draw on his insights to advance the epistemic goals of their own ontological projects. The obvious objection here is that we ought not try to reinterpret the actions of metaphysicians, but rather take them to be doing what they say they are doing. If the philosopher, so the argument might proceed, takes himself to be describing the world, then they are describing the world—they can only try and fail or try and succeed. If Fine takes himself to be doing more than this conceptual caretaking, then who am I to say he isn't? The short answer: this is not exactly what I am saying. There is an option to have it both ways, which I will present in the next section.

I would not like to go as far as Fine's assumed opposition, philosophical quietism.³⁸

There is much at stake in the question of realism, as beliefs about what is real vs. unreal often breed attitudes and stigma towards the real and the unreal. Neither will I land on an anti-realist view of metaphysics. While I am committed to a projectivist view of grounding which is deflationary,³⁹ I take grounding to be doing serious metaphysical work—and this also gives rise to certain attitudes. To work my way there, I would like to investigate this sort of Metaphysical Structural Realism (MSR)⁴⁰ in Fine's grounding-theoretic realism. He speaks of propositions describing the world and having structures; following this, there is a correspondence thesis which relates the structure described by the proposition to the structure of the world. This account of structural realism is loosely analogous to other attempts at realism about scientific theories uncovering the structure of reality with mathematical equations (e.g., Worrall 1989); these equations, so the argument runs, 'latch onto the blueprint of the universe' by identifying structures in nature with the structures described by the equations. It is only further evidence of a Scientific Structural Realism (SSR) that there are places in nature which phenomenally bear different qualities that can be explained by the same mathematical structures. Perhaps too MSR

³⁸ Quietism about realism involves asserting that there is no useful or meaningful philosophical position to be had on this question. Gideon Rosen represents the position as such: "We sense that there is a heady metaphysical thesis at stake in these debates over realism [...] But after a point, when every attempt to say just what the issue is has come up empty, we have no real choice but to conclude that despite all the wonderful, suggestive imagery, there is ultimately nothing in the neighborhood to discuss" (1994, 279). While this is a sobering way of describing the issue, I could only subscribe to the view after succumbing to defeatism about philosophical explanation; so, like many others, I don't take it to be a live option.

³⁹ This is in virtue of the concession I made in [Ch.2, §3.1](#). Koslicki (2020, 175) lists Miller & Norton (2017) as a 'second-generation skeptical doubt' raised against grounding which aimed to deflate the idiom by explaining it away, giving a psychological explanation which makes no use of grounding. Avoiding any analysis of the use of explanation here, I take it to be a feature, not a bug, that grounding is heavily dependent on our mind. See [§3.3](#).

⁴⁰ Not to be confused with Ladyman and Ross' (2007) *ontic structural realism* (OSR). I don't have a substantive thesis in mind for this role (in this section), only a placeholder for the metaphysical account which can be unified with a structural realism about science. I should note that Fine does not take this assumption (the real is always to be identified with the ungrounded) to be incontrovertible for those who would make use of the Finean view of realism.

could claim an added air of legitimacy by pointing at the variation in qualitative features of phenomena which the logical operations of grounding are employed to describe and explain. Given the similarities, this prompts the question: are the structures identified by these MSR the same structures in nature described by SSR?

There are several possible responses to this question. The staunch realist will immediately affirm; of course, we have our differing methods — metaphysicians and scientists — but the ways in which rationality and empirical testing get at reality are complementary, not competitive or incompatible. Grounding tracks the synchronic relations of the world, and science catalogues *causal events* which are diachronic—so, we might try to say metaphysics constructs the still pictures, frame by frame, while science presents a motion picture film, or a more apropos analogy, MSR can only track the *x* and *y* axes of reality while SSR tracks the *z* axis. In contrast, the metaphysical skeptic would say that only science could possibly be equipped to investigate the structure of reality, and thus the only meaningfully identifiable structures in nature are given to us by science. Adapting Worrall’s account of SSR to be less metaphysically loaded, van Fraassen represents this position as: “Science represents the empirical phenomena solely as embedded in certain abstract structures (theoretical models), and those abstract structures are describable only up to structural isomorphism” (2006, 305).⁴¹ The theoretical models of science can of course be static or dynamic (synchronic or diachronic), so if MSR is describing the same structures (via grounding models), they are only doing so less efficiently than current scientific models. Not to mention, of the various ontological programs, the only

⁴¹ Importantly, van Fraassen amends this version of structural realism to meet the standards of the sort of empiricism he advocates for. Note that, since van Fraassen disagrees with Worrall on what sort of ‘structures of nature’ we can come to know by which ‘mathematical structures,’ he would not exactly affirm either attempt at structural realism. However, his account operates as an important token in this narrative and still represents SSR to the exclusion of MSR.

viable option for a reconciliation between the two accounts would be an approach which identifies the fundamentalia of grounding as those same fundamental entities described by physics. This appears to limit our consideration to accounts of either physicalism or a modified hylomorphism, if we allow for an ontological thesis beyond what SSR and science might entail. But is this too restrictive for an account of MSR? I would argue it is. As I noted earlier, science and philosophy display different tendencies with respect to consensus, so I would like my account to reflect this same tendency. To this end, I will chart a middle path between these two responses, showing how we can have a respectable view of metaphysics with no desire to imitate science and modest intentions that are no less important. This will proceed as an argument for a sort of realism about constructivism. In doing so, I will show how extraneous accounts and theories in philosophy do not necessarily pose a threat to the state of metaphysics or our shared 'reality,' giving philosophers free roam, and great responsibility, to explore the conceptual landscape.

3.3 The World We Share vs. The Worlds We Shape

Grounding, like causation, is privileged in that it remains conceptually useful across virtually all domains of philosophical inquiry—whether it is the philosopher of science trying to throw light on the way in which the existence of certain objects and properties depend on a material constitution or the ancient philosopher arguing whether to side with Euthyphro, there is a task for grounding in philosophy. Science bears great normative weight on our ontology, true, but philosophers must concern themselves with more than just science. Wilfrid Sellars writes that: “[It is] the 'eye on the whole' which distinguishes the philosophical enterprise. Otherwise, there is little to distinguish the philosopher from the persistently reflective specialist” (1963, 3). This point is echoed here. But we must take this “eye on the whole” to mean more than just the cumulative accomplishments of the various scientific subdisciplines

also—grounding cannot simply amount to the synchronic glue that binds together our scientific world-view—and science can produce its own theorists and underlaborers.

Let us once again take up the issue of realism. I will precisely state what I am asserting. The structures described by MSR are not the structures described by SSR; at least not necessarily. If the structures described by these theories were identical and their axiological aims unified, then the methods of metaphysics are quite obviously suspect. While some version of SSR may end up successfully ‘latching on’ to the structure of the external world (up to isomorphism), and this may admit of some metaphysical explanation for the predictive success of science, there is no predictive success in *metaphysics* in need of explanation (hence there is no analogous motivation for MSR).⁴² Furthermore, a primary task of Worrall’s (1989) SSR is to explain the inheritance of theoretical success through radical shifts of theory change, but metaphysicians hardly worry about the frequency which we alter, create, permutate, gerrymander, or dispose of our own theories. This is not because we are any less sure of reality than the scientist, it is due to the nature of the sort of ‘reality’ at hand. But before we adopt the mystifying imagery of living in different realities, perhaps it would be more expedient to speak of aspects or frames of reference. Nelson Goodman, in his essay *Ways of Worldmaking*, approaches the sort of constructivism I’m getting at here, in a manner which I should note is grounding-formulable:

⁴² This may be hyperbole, but the point still stands. To give an example, a passage from Barnes (2016) commenting on the realist social constructionism of Haslanger (2012) speaks to a sort of predictive capability that philosophy has available: “Haslanger makes clear that the goal is not to shift the meaning of race terms or to be revisionist about ‘our concept’ of race; rather, the goal is to *reveal surprising information* about what categories—what aspects of the world—our racial talk might in fact be tracking” (2016, 2422; my italics). However, to my point, the difference between how metaphysics might reveal surprising information versus the way science might reveal novel phenomena is vast enough to not consider metaphysics ‘predictive’ in the same sense, only greatly analytically successful, prescient, inspiring, insightful, etc.

Frames of reference, though, seem to belong less to what is described than to systems of description; [...] If I ask about the world, you can offer to tell me how it is under one or more frames of reference; but if I insist that you tell me how it is apart from all frames, what can you say? We are confined to ways of describing whatever is described. Our universe, so to speak, consists of these ways rather than of a world or of worlds [...] Yet doesn't a right version differ from a wrong one just in applying to the world, so that rightness itself depends upon and implies a world? We might better say that the 'world' depends upon rightness. We cannot test a [world]-version by comparing it with a world undescribed, undepicted, unperceived [...]; and while the underlying world bereft of these, need not be denied to those who love it, it is perhaps on the whole a world well lost.⁴³ (Goodman 1978, 2-4)

Here Nelson is asserting that, since no 'point-of-view-from-no-one' exists in a way which is describable (without thereby tainting it with description), right description seems to be prior to the 'world' in some important sense. If we are to be affirming anything as real, according to the earlier MSR thesis of Fine's realism, it should be some *structures* in the world which correspond with the metaphysical propositions. In the scenario provided by Goodman, settling the matter of what is happening in the world can only take place once the matter of deciding which system of description to use is settled, and since each system of description presumably comes with their own standards on which frames of reference (or selection of aspects for abstraction) must be privileged, these systems of description are prior to the world—we must settle the matter of description before even attempting to present an explanation. For this reason, what we consider 'truth', 'truthfully describing', or even 'literally describing' are prior to our experience and only applicable to the abstractions which grow out of our systems of description.

Constructivism, then, might give us reason to think that the 'structure' of these 'worlds' is heavily dependent on and shaped by a human psychological background. The reason why it

⁴³ As for the 'world well lost' remark, I take this to either be an indication of a more radical constructivism than I am endorsing here or a brief, disruptive outburst of philosophical quietism. Goodman himself identifies this project as a reaction to the realist debates over physicalist vs. phenomenalist which pervaded the discourse of his time, so I would not doubt this to be the case.

still makes sense to speak of these structures in terms of ‘social reality,’ as opposed to the ‘objective reality’ framing that grounding might invoke, is because, for a great many purposes, the reality we often speak of is the social reality which we engage with. We might still be able to speak meaningfully about the underlying world *in itself*—but only to the extent that SSR is correct (or, up to structural isomorphism). Likewise, we are only able to speak meaningfully of the social aspects of the reality which we inhabit insofar as our metaphysical models are tracking something *at least* intersubjective. But what reasons do we have for believing that metaphysics is tracking these ‘structures’—and what are they?

I take it that the reasons which we might accept for any account of MSR to ‘correspond to the structure of reality’ are the same reasons why we might take some notion of SSR to be the case: the associated phenomena admit of regularities, and it is incredibly useful in the task of bringing about understanding of these phenomena to generalize these regularities. Just as we can presumably analyze the realization of higher-order biological structures from lower-order relations between chemical compounds via grounding metaphysics, we can similarly analyze the realization of higher-order social phenomena from lower-level social relations between persons, groups, social roles, etc., also via grounding metaphysics. But because abstraction proceeds by an initial selection of privileged aspects, it must also necessarily exclude other aspects. The method I have proposed understands the product of abstraction as facts, but not facts which are to be found woven into the blueprint of the universe; instead, facts are to be understood as abstracta which are perspective-laden and normatively constructed, i.e., facts are dependent upon the empirical observations of agents as well as the background norms of certain epistemic practices, institutionally accepted and enforced or personally motivated. Returning to an earlier point, the way in which the sort of scientific worldview (which leads to the renouncement of

metaphysics) can be objected to is on the basis of failing to take into account that any other initial selection of privileged aspects could possibly lead to worthwhile epistemic practices.⁴⁴

What reasons do we have for taking this to be the case? Once again, we consult the much-appreciated metaphysical skeptic and constructive empiricist, Bas van Fraassen (2006), on the issue of structural realism. Before his treatment of Worrall's (1986) SSR account, van Fraassen gives a brief history on what physicists took themselves to be doing in their respective subject matter, highlighting the sort of debates about realism which took place in the sciences at the time.⁴⁵ Upon reflection, these physicists overwhelmingly take themselves to be abstracting from the phenomena to create models which track our observations, and their writings on the issue clearly convey the deflationary attitudes they held. This sort of 'tracking our experience' is what I have in mind for what *facts* are doing, and this is exactly what I take grounding to be tracking. These conceptual entities exist as abstracta that we need not be committed to *de re*, but we are still entitled to treat individual facts in a realist or anti-realist manner, an alternative understanding of realism which I will explicate in the next few paragraphs. van Fraassen, despite his staunch empiricism, still holds some form of SSR—of realism—to be correct (2006, 305). Though his reformulation comes as little consolation to the scientific realist, as it is not quite the metaphysical thesis which affirms that 'point-of-view-from-no-one', it comes with its own criteria and benchmark for success: fidelity of certain structures found in our experience—and structural isomorphism. Similarly, grounding must supply its own criteria and benchmark for success, which is what I have tried to supply with my exploration of the epistemic goals of

⁴⁴ Please note that I am not saying that these worldviews necessarily lead to problematic or exclusionary attitudes towards other philosophical disciplines, just that they leave no room for a possible metaphysical justification beyond SSR. If what I'm proposing is to be accepted, it would come with a more inclusionary pluralism.

⁴⁵ For the full effect, see [Appendix I](#) for a list of quotes from Maxwell, Hertz, Boltzmann, and Mach on the topic of realism, representation, and abstraction.

metaphysics. But since our reality consists in these various aspects, incomplete on their own and fragmentary, latched onto by our systems of description,⁴⁶ and these systems of description on their own are all grounded in a human psychological background, it is too cumbersome to require a theory of realism to apply globally, as all these aspects are unreal when they are experienced as 'on their own' (or removed from other aspects) and merely abstractions when put together (as theories of 'reality'). Instead, we must localize the issue of realism on the basis of how they shape the norms of the epistemic practice and the attitudes of its participants. To extend this further, I will propose that we can treat the artifices of systems of descriptions as unreal since attitudes towards conceptual puzzles only indirectly influence these norms, while relations of facts that track the structure of important social issues, including issues involving scientific theory or methodology, we can treat as real insofar as it motivates us to represent these issues in higher fidelity, among other desirable epistemic ends we might expect of metaphysics. This constructivist realism should not be understood as privileging the social aspect; merely calling to attention that most of our engagement with science takes place within this social aspect. Thus, the hammer of metaphysics is not the warhammer to be brought down on the heads of others, nor is it the hammer that drives the chisel into the earth to uncover hidden structures. It is the craftsman's hammer, used to construct artificial systems of meaning designed to effectively impart an intimate understanding as we throw light on those aspects which perplex us the most.

⁴⁶ Let me give a concrete example of what I mean by aspect. If we are speaking of hydrochloric acid, we can either speak of it in its chemical aspect, how we might find it in a lab, or in its biological aspect, how we might find it in our digestive system. We utilize these aspects for different ends in our epistemic practices, so I am arguing.

Exploration of the topic of social construction has already been enacted by some proponents of ground.⁴⁷ Elizabeth Barnes (2016) builds a constructivist realist⁴⁸ metaphysical account from the work of Sally Haslanger (2012) which she goes on to note poses difficulties for certain conceptions of realism in metaphysical discussion: if what is grounded is unreal and what is ungrounded is real, then how are we to make sense of certain realist and anti-realist perspectives which are applied to derivative entities? She gives an example:

[Ásta]⁴⁹ (2013, cited by Barnes) would agree with Haslanger that gender is grounded in a complex network of human thought, behavior, and norms. But [Ásta's] account of gender is much more deflationist than Haslanger's—she is (more or less) a projectivist about gender. And [Ásta's] view is plausibly characterized as a type of metaphysical anti-realism. (Barnes, 2016, 2432)

Elsewhere, Barnes (2014) has made mention of the antagonism between traditional metaphysics and feminist metaphysics, highlighting a concern that contemporary *metametaphysical* accounts (emerging as a response to metaphysical skepticism much in the same way that I have presented myself here) might unfortunately entail a relegation of feminist metaphysics. In short, Barnes argues that since feminist metaphysics is explicitly and purposefully *not* about the fundamental, *metametaphysical* projects which privilege the fundamental as the central project of metaphysics will inevitably shoehorn social critiques and issues raised by feminist metaphysicians to the fringe.

This is a considerable worry for the Finean view of realism which hopes to reinterpret conversations about realism in terms of grounding. If we endorse a global anti-realism about derivative entities, we risk promoting the attitudes that tend to come along with anti-realist

⁴⁷ Also see Griffith (2017, 2018) for some interesting suggestions on social construction and grounding. For a more comprehensive article on the topic as it relates to grounding, see Passinsky (2020).

⁴⁸ Though the terminology used is 'constructionist,' I take us to be talking about the same family of ideas.

⁴⁹ As a courtesy, I have omitted the patronymic used in Barnes (2016). On their professional website, Ásta voices a preference for this style of reference and citation (publishing under "Ásta Sveinsdóttir" pre-2017).

beliefs on the phenomena which we are referring to as ‘derivative’ or ‘unreal,’ such as a dismissive or indifferent attitude towards those social challenges which are thus defined. Clearly, this is a highly undesirable outcome for a theory of realism.⁵⁰ This is why I advocate for a stressed importance on *realist attitudes* and less so about *realist beliefs*, as well as on *local realism* over *global realism*. The sort of constructivism that I advocate for entails a pluralism about metaphysical approaches, as these can be understood (insofar as they offer correct descriptions of social structures) as systems of description which emerge out of the entailments of metaphysical propositions and a privileging of certain aspects. This might amount to the response that feminist metaphysics *can* be about the fundamental if we take MSR to be latching onto these social structures (I take this to be a matter of orthopraxy rather than orthodoxy); however, I would not like to downplay this concern. As an empiricist, I appreciate Barnes calling us back to experience, alerting us to the remedial task of metaphysics.

⁵⁰ See Barnes (2014, 2016) for the full critique. For posterity, also see rejoinders to this criticism from Sider (2017) and Schaffer (2017).

CHAPTER IV

EPILOGUE

“Science is built up with facts, as a house is with stones. But a collection of facts is no more a science than a heap of stones is a house.”

—*Henri Poincaré, Science and Hypothesis (1905, 157)*

1. Final Thoughts

To conclude, I would like to make a quick biographical note. While writing this thesis, I have tried to keep an “eye on the whole” mindset when considering the theoretical role of grounding and developing my metaphilosophical commitments. This has involved contemplating the detectable ways in which my political, social, moral, and aesthetic values come into play as well as how the concurrent attitudes have shaped the account I’ve put forward. While some of these I will of course keep private, I would like to share a bit of the motivation for this account to enumerate the sort of values one might be affirming in accepting this understanding. I would also like to offer a few clarifications and gesture toward some future projects.

What I have endeavored to do in the third chapter of my thesis is describe as accurately as I can what I believe our epistemic situation to be. Throughout history, philosophers have attempted to dispense with metaphysics, but the intellectual tradition persists; furthermore, it still proves useful in many domains of philosophical inquiry. Even if the style of expression which the metaphysician affirms is allowed to vary, as my pluralist attitude allows and endorses, this does not mean that the tradition is defunct—only misunderstood. Though I find a wealth of

conceptual resources in thinkers like Carnap, as well as much agreement on the sort of 'big picture' accounts on epistemic agency, I find quite a few disagreements which steer me away from accepting the conclusion that metaphysics is reducible to *ultimately* arbitrary linguistic discourse. But what I find is not quite the evidence I would need to steer me into the clutches of a robust metaphysical or scientific realism. I remain convinced that the more valuable truth to be had is one that cannot be fully captured by the propositional truths we interact with in our studies; rather, it must be embodied by an agent finding meaningful expression for themselves within an intellectual practice. So, in the interest of documenting an interpretation of my own account, I will present an epilogue of sorts as an introduction to a future project on pragmatics.

1.1 A Second Look at Carnap

The idea that the world consists in facts finds its start in Ludwig Wittgenstein's *Tractatus*, which begins with the famous lines:

"The world is everything that is the case. The world is the totality of facts not of things. The world is determined by the facts, and by these being *all* the facts. For the totality of facts determines both what is the case, and also all that is not the case. The facts in logical space are the world. The world divides into facts" (1922/2003, 7).

The facts which Wittgenstein had in mind were devoid of any empirical significance beyond representation, but the strong empiricist leanings of the Vienna Circle quickly updated this understanding. Wittgenstein's facts were *logical* entities which could be subjected to certain logical operations and are accessible through rational and deductive means, but they were not quite mind independent yet. At the time of the *Tractatus*' publication, the early Carnap's philosophical interests were on thinkers from the older positivist tradition, such as the phenomenalist Ernst Mach, as well as Bertrand Russell's early work on logic and mathematics (Urmson 1971, 106). With the ambition of unifying the sciences propelling philosophical projects

in the 1920's, Carnap synthesized these elements to develop a theory of reductionism to aid in the reconstruction of a physical reality based on scientific facts from the chaotic sense-datum of experience, culminating in his work on the *Aufbau*. In response to Carnap's *Aufbau* was the Vienna Circle's famous protocol sentence debate, which resulted in an early formulation of reductive physicalism discussed between Carnap, Neurath, and Hempel in the early 1930's (Uebel 2007, 27).

A later Carnap (1950) speaks of agents accepting and rejecting certain propositions based on the sort of linguistic frameworks that they might decide to employ. He differentiates between: 'internal questions' of existence which probe into the linguistic framework to find a truth value for a query such as "is X internal to L-framework?"; and 'external questions' of existence, which probe into the existence of those frameworks themselves (1950, 22; 31) and also characterize the traditions of philosophy and metaphysics which he repudiates. According to SEP, these external questions:

[...] do not ask whether something exists within the rules of some (explicitly specified) framework, but whether something exists period, quite independently of any language framework in which the question might be articulated. Taken literally, at face value, external questions and sentences have no cognitive significance, in Carnap's view; they cannot be true or false. The only sense he could make of them was to regard them as practical sentences and questions concerning framework choice, such as "Shall we introduce this form of expression into our language?" or "Should we—for a specified purpose—use this language or that one?" (Leitgeb & Carus 2020)

By differentiating between internal and external questions of existence, it becomes clear how trivial the matter of settling existence claims is under some circumstances. The existence of some objects might be affirmed under some linguistic frameworks in which their referents are firmly established and denied under others where these designata have not been assigned. Furthermore, Carnap claims the external questions asked by metaphysicians are not *actually*

stepping outside of these linguistic frameworks, but rather inventing new frameworks brimming with the same designations and assumptions characteristic of any other framework and only applying those 'meta' frameworks to affirm the same values which led them to accept the initial linguistic framework they are trying to vindicate with a theory of realism.

In much the same manner as Carnap, I take epistemic agents to be free to choose which systems of description suit their purposes. However, Carnap had strictures on what he was willing to call philosophy—he took the primary aim of philosophy to be “the logical reconstruction of scientific sentences in formally precise linguistic frameworks” (Leitgeb & Carus 2020). To offer a disagreement (and critique) based on the reasons I expounded in Chapter 3, I take this to be a rather limited view of what philosophy is and what it should be, as it falls into the 'underlaborer' conception which understands philosophy to be subservient to the axiological aims of science. As I have argued in the previous chapter, established scientific enterprises are robust and potent enough to advance their own epistemic ends, and philosophy need not be a *mere* repetition of scientific information.

Philosophical theories which try to remove human consciousness in their presentations of the world as abstraction can only do just that: present an abstraction; that is, present an incomplete picture of the world by way of removing certain aspects. But when philosophers employ this technique, we should understand this as nothing more than engaging our imagination for the purposes of illustrating the independent plausibility of a theory. We should not understand it as a proof, as the way that it engages our mind is not by way of forceful empirical rigor, but by the consensual, deliberate, and often mutually desired goal of theoretical understanding. But what of empirical rigor?—Does this not get us truths and worldly facts? It might be supposed that when we abstract away from the world to form our theories, those facts

seem as if they could easily be placed back in the world right where we extracted them. Again, I take this to be a sort of useful fiction which excites the imagination but does not amount to much empirically. It is not clear what sort of substratum we would be placing the fact back into, nor whether this could amount to a cognitive operation at all. The goods of empirical rigor can most certainly manifest in an embodied understanding, exemplified by our mastery over nature and ourselves, and even over our formalized logical constructs, but this is a far-cry from the sort of propositional truth that philosophers have tried to spell out and argue for. Propositional truth in this sense is just a means to imparting those goods within a mutually agreed upon framework and *not* the intrinsic goods of epistemic activities.

To draw out the theory of pragmatism I am attempting to illustrate and what this means for our epistemic situation, here is a thought experiment which tracks a mundane and low-stakes epistemic experience. Picture two average, everyday epistemic agents, Bobby and Carly. Carly values certain experiences, such as the characteristic ambient scent that subsequently accompanies heavy rainfall. Bobby doesn't even notice the smell that Carly often silently appreciates. However, one day Bobby hears the word "petrichor" in passing conversation and decides to look it up. After having looked up the word, Bobby starts to notice and appreciate the same wet, earthy smell. Now, in this case we might first assume that Bobby *discovered* something when they first notice the scent, since it was independently verified by Carly before the discovery, thus we might take Bobby's discovery to be that of certain weather conditions leading to certain sensory experiences. However, my theory of constructivism would have it that the only genuine discovery that was actually made was that of designatum; in other words, Bobby merely discovered a pattern of human behavior which begins with assigning correspondence between a feature of the world and a concept (that of certain gaseous compounds detectable through olfaction and the construct 'petrichor') and ends with their

participation in this facet of human experience. This is a simple case, since even the common-sense understanding takes concepts such as ‘petrichor’ to be mostly abstract anyway, and a more sophisticated theory of realism might insist that this conceptual designation must in some way be derivative of an actual *denotation*; in other words, there must be some concepts which are nothing over and above their physical correspondence—concepts which are ‘fully grounded in the physical’. The pluralism I endorse allows for this to be the case, but it does not entail that this is the case *to the exclusion of all metaphysical accounts but physicalism*.

We can trace an impressive amount of our theoretical machinery back to Aristotle’s four causes, as the Aristotelian project has remained one that many felt compelled to develop throughout history. But many have similarly felt compelled to refute parts of these systems, with a rejection of efficient causation being represented in the historical literature by Hume (1739/1985), Russell (1912), and more recently Norton (2003). Descartes famously rejected final causes in *Meditation IV* (1984, 39), and in the philosophy of biology, the status of teleology remains a hotly debated issue (Mayr 1988; Ayala 1970; 1998; Amundson & Lauder 1994). Elsewhere in metaphysics, material causes have been contested by traditions such as Berkeley’s idealism (1710/1982), and both materialists and physicalists alike are regularly charged with a rejection of formal causes byhylomorphists (Jaworski 2016; Koons 2021a). I take it that none of these concepts are above reproach, as the theoretical structure of science requires philosophical underpinnings—underpinnings which determine the way science is communicated and understood—and philosophy allows for such breadth of thought.

1.2 Challenges and Post-Defense Reflection

There are some considerable theoretical difficulties which my account entails, but I do not take them to be without design or purpose. The first difficulty is that this theory posits a

weakened notion of *explanation* in virtue of the ambiguous and potentially deflated status of *facts*, which my account takes to be abstracta dependent upon both our empirical observations as well as certain parameters constructed by the influence of individual epistemic agents and norm-guiding social forces, instead of concrete, identifiable features in the world. I have tried to be forthcoming with this limitation throughout, but I have yet to offer a satisfying resolution to the tension. A second difficulty is that the success of science is apparently left a mystery on this view if we take the truth conveyed in explanation to not be dependent upon worldly facts. A third difficulty is that a constructivist realism might be too doxastically lenient—that it may allow for separations between “your truth” and “my truth” in which appeals to reality are impotent to settle disagreement.

To address the first difficulty, I will make a number of appeals. First, I will appeal to intuition, which confirms that we really do construct *ideas* which circulate our epistemic environment, some which may be true and some false, and that we treat these ideas as *facts* regardless of our certainty while still reserving the right to update them once presented with new information. The sticking point here may be that some will insist that we need a concept of facticity which delineates *when such facts actually obtain in the world*. From here, I would make another appeal to the Carnapian understanding of epistemic agency. We can (and do) create these overlapping linguistic frameworks as a way of illustrating the point better and better, but we will never ‘get around’ the blunt instruments of language. Nevertheless, we can find meaningful expression in these intellectual disciplines by utilizing these systems of description and their propositional truths, but only as an epistemic means to a pragmatic end. Finally, an appeal to definition. I find it plausible that we can get by without such a strong notion of fact if we still hold to some sufficiently desirable notion of *truth*. However, any propositional truth I could posit would lead me straight back to these facts. Thus, I have located a more pragmatic

truth to serve this role, the *je ne sais quoi* of embodied understanding, which is dependent on our systems of description *not* in the way that they describe things, but only to the extent that they can reliably impart this embodied understanding.

I will address the second difficulty briefly. There is a whole history of philosophy to be had on the success of scientific theory and its inheritance through revolutions and paradigm shifts (Kuhn 1962/2012), but it should come as no surprise that science works to the extent that it is just a method of empirically rigorous trial and error which constrains theory choice. If facts are (updatable/revisable) abstracta which track our observations, and explanation consisting in these, then the history of scientific thought may be construed as continuous and traceable through chains of influence with perhaps notable and novel foundations spontaneously emerging at some points, as with Darwin's *On the Origin of Species*. Positing the stronger notion of facts, I take it, would have a harder time accounting for the success of past theories which were not quite correct according to our current standards but still produced good-enough predictive capabilities, such as the infamous epicycles in Copernican models of the universe, inherited from Ptolemy and superseded by Newton's law of universal gravitation. While correspondence comes into play somewhere, insofar as a scientific theory is attempting to describe reality, this should not distract us from the contingent nature of theory.

If I have not already eased the third difficulty by locating a pragmatic ground for truth, then I can only explicate this further. My pragmatism would have it that there *is* a method of appealing to reality in order to settle difference. However, this would not proceed by a recitation of propositional truths; rather, it would proceed by an evaluation of the practices which concern themselves with such truths, as well as how well this facilitates the axiological fulfillments of the agent(s). My pluralist leanings and egalitarian spirit invite optimism into a

reading of how epistemic activity might take place under these conditions, but in the interest of devoting more time to this topic elsewhere, I will wrap up in the next section.

1.3 Clarifications & Wrapping Up

I would like to begin to end with a clarification on the rival metaphilosophical position of the underlaborer. I would like to avoid being interpreted as endorsing the view that clearing up scientific confusion is somehow not valuable or important. On the contrary, I take this task to be one of the most important tasks of the 21st century, especially in the face of rampant misinformation in public and social media spheres. What I am objecting to is the view that clearing up this confusion is all philosophy can or should amount to. I am a science-lover myself, and scientifically informed philosophy *should* be in high demand, especially when both the roles of underlaborer and illuminator can be achieved at once. However, if philosophy only dealt in the epistemic goods of scientific inquiry, society would obviously go without the epistemic goods of philosophical inquiry.

There are implications to a theory of constructivism, especially the one I have put forth here, which offer an intuitive account for why we tend to consider aesthetic and pragmatic values in considerations of theory selection, such as simplicity, parsimony, symmetry, and even beauty; namely, constructivism tends to assume the value-ladenness of scientific theory and practice. While I do not make the case for this value-ladenness here, I take this to be a strength of the account, as the epistemic agent who recognizes the contingent nature of theory can all at once: be disabused of the accompanying dogmatism, be presented with the appropriate context to “think outside the box,” and have a deeper appreciation for the creativity which went into the formulation of ideas such as Einstein’s theories of relativity.

To claim that these semantic designations and conceptual structures are a matter of convention is not an endorsement of their disposal, nor is it to claim that these conventions do not matter or should be repudiated. If this were the case, I would not advocate for grounding. Moreover, (as with 'petrichor') these systems of meaning clue us in to certain facets of human experience which we typically find value in the participation of, and (in virtue of both having these concepts available as well as understanding them, which I take to be a grasping of the contexts in which they are appropriately expressed) this opens the possibility for genuine acts of '*poiesis*' or novel creation of new ideas and concepts. I take this to be a sort of secondary task of philosophical epistemic activity, but not primary, as we should not be expected to churn out these epiphanies like machines. But participation in these acts of *poiesis* confers an epistemic good that I believe ought to be contemplated more, if not altogether identified as the sort of 'objective truth' we philosophers so fervidly seek. This is perhaps nothing but an aesthetic preference, but insofar as this is a desirable epistemic good which adds value and meaning to the agent's life, my account of constructivism provides a metaphysical picture which does not impose a dogmatic means of stymying this goal.

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APPENDIX I

The following are a series of quotes embedded in §1 of van Fraassen's article "Structure: Its Shadow and Substance" (2006, 277-278) from the great scientific minds of Maxwell, Hertz, Boltzmann, and Mach. I have included them here because I take this information to be pertinent to the metaphysician's task, especially the grounding metaphysician who would like to build their worldview from a scientific foundation. That is, I don't take these arguments and assertions to be evidence or proof that abstraction is the best way to understand the ontological status of facts, but I do take them to be an indication of a strong vein of thought within scientific discourse that metaphysicians could step in to expand upon. Without further ado, here are a few snippets of what they have to say on the issue of reality, representation, and abstraction:

"By a judicious use of this analogy [between Fourier's equations conduction and the equations of heat conduction and the equations of the electrostatic field] ... the progress of physics has been greatly assisted. In order to avoid the dangers of crude hypotheses we must study the true nature of analogies of this kind. We must not conclude from the partial similarity of some of the relations of the phenomena of heat and electricity that there is any real similarity between the causes of these phenomena. The similarity is a similarity between relations, not a similarity between things related." (Maxwell 1881, 51-52, van Fraassen's paraphrase)

"[S]cientific accuracy requires of us that we should in no wise confuse the simple and homely figure, as it is presented to us by nature, with the gay garment which we use to clothe it." (Hertz 1893/1962, 28)

“We form for ourselves inner pictures or symbols of external objects; and the form which we give them is such that the necessary consequences of the pictures in thought are always the pictures of the necessary consequences in nature of the things pictured [...] The pictures which we here speak of are our conceptions of things. With the things themselves they are in conformity in one important respect, namely in satisfying the above requirement. For our purposes, it is not necessary that they should be in conformity with the things in any other respect whatever.” (Hertz 1894/1956, 1-2)

“We know how ... to obtain a useful picture of the world of appearance. What the real cause for the fact that the world of appearance runs its course in just this way may be; what may be hidden behind the world of appearance, propelling it, as it were—such investigations we do not consider to be of the task of natural science.” (Boltzmann 1905, 252)

“In any case, physicists have nothing to seek ‘beyond the appearances’. Whether philosophers will always find it necessary to affirm something real [...] whose relations may only be recognized in the wholly abstract form of equations, may be left entirely for the philosophers to decide [...] Hopefully, physicists of the 20th century will not let their investigations be disturbed by such meddling!” (Mach 1910/1992, 124-125)

[Return link to †45](#)

[Table of Contents](#)

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