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### Publication Date

2015

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UNIVERSITY OF CALIFORNIA,  
IRVINE

Essential Explanation: A Non-Humean Account of Metaphysical Explanation

DISSERTATION

submitted in partial satisfaction of the requirements  
for the degree of

DOCTOR OF PHILOSOPHY

in Philosophy

by

Mark Steven Makin

Dissertation Committee:  
Associate Professor Marcello Oreste Fiocco, Chair  
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2015



## DEDICATION

To  
Carri

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## ACKNOWLEDGMENTS

I would like to express the deepest appreciation to my committee chair, Associate Professor Marcello Oreste Fiocco. His guidance, mentorship, and unwavering support were invaluable to me throughout the course of this project and my graduate career at UC Irvine. I would also like to thank Professors Sven Bernecker and David Woodruff Smith for all of the time and energy they devoted to working with me. The seminars, discussions, and arguments with all three have been deeply rewarding and have made me a better philosopher.

I am grateful for the camaraderie of my fellow graduate students at UC Irvine over the years. In particular, I want to thank Christopher Bobier, Joseph Dowd, James Gibson, Aaron Griffith, and Megan Zane for their friendship and their willingness to discuss my work in depth.

I gratefully acknowledge the support of the Department of Philosophy, the School of Humanities, the Humanities Core Program, and the Pedagogical Fellows Program.

I also want to thank my family and friends. Thank you, Mom and Dad, for your continual love and encouragement. Thanks to my church family and friends for your encouragement and prayers.

Most of all, I owe a debt of gratitude that can never be repaid to my best friend and beloved wife, Carri. Since the very beginning of my graduate career at Yale, your sacrificial love and encouraging words have sustained me through all the ups and the downs. You have patiently, even gladly, borne two cross-country moves, multiple less-than-ideal jobs, countless late nights, and hours upon hours of soporific philosophical discussions. Without you none of this would have been possible. This dissertation is dedicated to you.

Finally, thanks be to God, merciful and gracious, abounding in steadfast love and faithfulness. May the words of my mouth and the meditation of my heart be acceptable in your sight, O Lord, my rock and my redeemer. Glory be to the Father, and to the Son, and to the Holy Spirit. As it was in the beginning, is now, and will be for ever. Amen.

## CURRICULUM VITAE

# Mark S. Makin

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## **ABSTRACT OF THE DISSERTATION**

Essential Explanation: A Non-Humean Account of Metaphysical Explanation

By

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Doctor of Philosophy in Philosophy

University of California, Irvine, 2015

Associate Professor Marcello Oreste Fiocco, Chair

Philosophical interest in explanation is as old as philosophy itself. The philosophical history of explanation has predominantly investigated scientific explanation, culminating in the twentieth century with a resurgence of interest in the nature of scientific explanation and the related notions of causation and laws of nature. Recently, this resurgent interest in scientific explanation has facilitated an emerging interest in a kind of non-causal explanation—metaphysical explanation and the related notions of metaphysical dependence and laws of metaphysics. Despite the ubiquity of metaphysical explanations in philosophy, however, accounts of metaphysical explanation remain fragmentary and vague, and their relevance to issues that fall outside of traditional metaphysical disputes remains largely unexplored. In this dissertation, I fill this lacuna by developing and defending an essentialist account of metaphysical explanation, which I then apply to an issue in philosophical theology.

In Chapter 1, I introduce the notion of metaphysical explanation and show how the emerging dispute concerning metaphysical explanation parallels the timeworn dispute

between Humeans and non-Humeans concerning scientific explanation. In Chapter 2, I construct a Humean account of metaphysical explanation using the metaphysical dependence relation of grounding and a best system account of the laws of metaphysics. Drawing on parallels with scientific explanation, I contend that Humean metaphysical explanation suffers from a familiar circularity objection that compels Humeans either to deny the explanatory role of the laws of metaphysics or to compromise their commitment to the doctrine of Humean Supervenience. In Chapter 3, I develop and defend my essentialist account of metaphysical explanation. Metaphysical explanations, I argue, hold in virtue of essential dependence relations between particulars and are governed by “laws of essence,” essential dependence relations between universals. In a slogan, metaphysical explanation is essential explanation. Finally, in Chapter 4, I apply my essentialist account to part of the classical Christian doctrine of the Trinity known as the doctrine of eternal generation. I propose an essential dependence model of eternal generation and demonstrate how it avoids standard philosophical and theological objections to the doctrine.

# Introduction:

Explanation, in its many guises, pervades our lives. A deep and persistent desire for explanation—to know the “why” of things—is ingrained in us. It’s not enough to know *that* some fact obtains: that the sun rises and sets at regular intervals, for instance. An irresistible impulse impels us to discover *why* it obtains. The fundamental human desire for explanation gives birth to our questions, pedestrian and profound, from why the car refuses to start to why there is something rather than nothing. We seek understanding of ourselves and the world around us, and understanding seeks explanation.

Philosophical interest in explanation is as old as philosophy itself. Its significance is perennial, attracting the attention of such luminaries as Aristotle, John Stuart Mill, and Carl Hempel. For both philosophical and historical reasons, the philosophical history of explanation has predominantly investigated scientific explanation, explanation within the realm of natural science. In more recent history, twentieth century analytic philosophy witnessed a resurgence of interest in the nature of scientific explanation and the related notions of causation and laws of nature.

But this resurgent interest in scientific explanation has facilitated the emergence of interest in a kind of explanation that cannot be neatly construed as scientific—an interest in what has been termed *metaphysical explanation*.<sup>1</sup> Metaphysical explanations, such as those involving truths and their truthmakers or determinate and determinable properties, differ from scientific explanations in that they are non-causal. Despite the ubiquity of metaphysical explanations in philosophy, however, accounts of metaphysical explanation remain fragmentary and vague, and their relevance to issues that fall outside of traditional metaphysical disputes remains largely unexplored. In this dissertation, I aim to fill this lacuna by developing and defending an essentialist account of metaphysical explanation, which I then apply to an issue in Christian philosophical theology.

In Chapter 1, I introduce the notion of metaphysical explanation and show how the emerging dispute concerning metaphysical explanation parallels the timeworn dispute between Humeans and non-Humeans concerning scientific explanation. In Chapter 2, I construct a Humean account of metaphysical explanation using the metaphysical dependence relation of grounding and a best system account of the laws of metaphysics. Drawing on parallels with scientific explanation, I contend that Humean metaphysical explanation suffers from a familiar circularity objection that compels Humeans either to deny the explanatory role of the laws of metaphysics or to compromise their commitment to the doctrine of Humean Supervenience. In Chapter 3, I develop and defend my essentialist account of metaphysical explanation. Metaphysical explanations, I argue, hold in virtue of essential dependence relations between particulars and are governed by “laws of essence,”

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<sup>1</sup> Metaphysical explanation also goes by the aliases ‘non-causal explanation’ and ‘grounding explanation’.

essential dependence relations between universals. In short, metaphysical explanation is essential explanation. Finally, in Chapter 4, I apply my essentialist account to part of the classical Christian doctrine of the Trinity known as the doctrine of eternal generation. I propose an essential dependence model of eternal generation and demonstrate how it avoids standard philosophical and theological objections to the doctrine.



# Chapter 1:

## *The New Humean/Non-Humean Dispute*

### *1.1 Senses of Explanation*

‘Explanation’ is said in many ways. The word commonly picks out a cluster of related entities in the world, oftentimes muddling philosophical discussions of the nature of explanation.<sup>2</sup> “The radical ambiguities of ‘explanation,’” warns Wesley Salmon, “create almost endless opportunities for obfuscation and confusion.”<sup>3</sup> At the outset, then, we should clearly distinguish what the various senses of ‘explanation’ pick out. There are at least four senses of ‘explanation’: communicative explanation, representational explanation, doxastic explanation, and objective explanation.<sup>4</sup> Although this dissertation has implications for all four, it primarily concerns objective explanation: my essentialist account of metaphysical explanation is an account of objective metaphysical explanation.

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<sup>2</sup> I use ‘entities’ here in the most general sense of the term, that is, to refer to anything whatsoever that exists. I use the term and its variants in this way throughout, unless otherwise noted.

<sup>3</sup> Salmon (1998: 9). In this connection, Hempel’s account of scientific explanation is famously ambiguous between two senses of ‘explanation’, one more objective than the other.

<sup>4</sup> Cf. Bird (2005). Bird identifies only two senses: objective explanation and what he dubs “subjective explanation,” which most closely resembles communicative explanation.

In the communicative sense of ‘explanation’, an explanation is a communicative act, typically an assertoric utterance containing the connective ‘in virtue of’ or ‘because’. It is an act of explaining. Call explanations of this sort *communicative explanations*. When Mrs. Peacock provides an explanation for the butler’s death to the detective, asserting that Colonel Mustard cudged the butler with a candlestick, she performs a communicative act, an act of explaining. Mrs. Peacock provides a communicative explanation, and whether or not her communicative explanation accurately describes how the butler died is another matter entirely. As an act of explaining, communicative explanations require explainers, people doing the explaining, and an audience, the recipient(s) of the explanation. Communicative explanations are highly sensitive to both epistemic and pragmatic factors. Because of this sensitivity, communicative explanations are often characterized as non-extensional, contrastive, elliptical, and so forth. Suppose Colonel Mustard is a persona designed to conceal the man’s true identity as Mr. White. If Mrs. Peacock were to say that the butler died because Mr. White cudged him with a candlestick, we’d say that her communicative explanation is poor or infelicitous, despite the fact that ‘Colonel Mustard’ and ‘Mr. White’ are extensionally equivalent. Likewise, Mrs. Peacock’s communicative explanation might be contrastive to clarify salient information (with a candlestick rather than a rope) or elliptical if she trusts us to supply information that has been omitted from her communicative explanation (simply stating that Colonel Mustard killed the butler with a candlestick).

‘Explanation’ may also refer to some representational entity (or a set of representational entities) such as a proposition or a statement.<sup>5</sup> Explanations of this sort, *representational explanations*, have close ties to communicative explanations. As assertoric utterances, communicative explanations express propositions that represent and are made true by things in the world. Communicative explanations express representational explanations. Mrs. Peacock’s communicative explanation, for example, expresses a representational explanation, namely, the proposition <the butler died because Colonel Mustard cudged him with a candlestick>. Representational explanations may or may not accurately represent the world; they are true or false. Conceived as representational entities (or sets of representational entities), theories and hypotheses are representational explanations. So, the “Colonel-candlestick theory” is an explanation for the butler’s death.

A third and related sense of ‘explanation’ is *doxastic explanation*.<sup>6</sup> A doxastic explanation is a belief in a representational explanation. After listening to Mrs. Peacock’s communicative explanation for the butler’s death, suppose the detective forms the belief that the butler died because Colonel Mustard cudged him with a candlestick. At this point the detective has an explanation for the butler’s death—that is, the detective believes the relevant representational explanation, the proposition <the butler died because Colonel Mustard cudged him with a candlestick>. We might even say that the detective *understands* why the butler died, provided that the butler died in this manner. If, in fact, Professor Plum is responsible for the butler’s death, then it seems the detective does not understand why the

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<sup>5</sup> Other representational entities might do as well, so long as they are the ultimate bearers of truth and falsehood.

<sup>6</sup> Psychologists, in particular, have concentrated on doxastic explanations. See Waskan et al. (2014).

butler died. Thus, not all doxastic explanations count as instances of understanding, since understanding is factive and not all doxastic explanations accurately represent the world. Doxastic explanations also *unify* our beliefs by helping us see connections between beliefs that we previously thought were unconnected. Early into his investigation, the detective may have seen no connection between his beliefs about Colonel Mustard's behavior and his beliefs about the butler's death, but after coming to believe the relevant representational explanation, the detective can now see connections between beliefs that were, until very recently, unconnected in his mind. In this way, doxastic explanation leads to unification.

The fourth and, for our purposes, most important sense of 'explanation' is *objective explanation*.<sup>7</sup> An objective explanation is a relation in the world that exists independently from subjects. If there were no people, there would still be objective explanations. Objective explanations relate facts, where a fact is an obtaining state of affairs: a thing having a property or status, or things standing in a relation. Facts are worldly (as opposed to wordy or conceptual) entities—that is, they are individuated by their constituents and the manner in which those constituents are combined. The fact(s) doing the explaining is the *explanans* (or explanantia), and the fact(s) being explained is the *explanandum* (or explananda). Objective explanations should be construed as relations because they possess properties that can only be had by relations, such as irreflexivity and transitivity. They relate facts because facts are better suited than other potential relata, such as events and individuals. Not all objective explanations involve events, and individuals, such as my coffee mug, can't explain. So understood, objective explanations are factive and insensitive to epistemic and pragmatic

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<sup>7</sup> Following Salmon (1984), objective explanations are sometimes called ontic explanations.

factors. Because they are not assertions or representations, objective explanations are not more or less good, accurate or inaccurate, true or false. They simply hold. Since they don't depend on people for their existence, it is possible for objective explanations to remain unknown or undiscovered. There is an objective explanation for the butler's death, whether or not anyone knows it, and the detective resolves to discover this objective explanation. In the interest of transparency, it should be noted that my approval of objective explanation presupposes realism about explanation. Explanation, in at least one sense of the word, is not purely epistemic or pragmatic. It is a feature of the world.

Objective explanations, I will assume, hold *in virtue of* dependence relations between entities in the world. One fact explains another fact *because* a constituent of the latter depends on constituent of the former. Different kinds of objective explanations, causal or otherwise, hold in virtue of different kinds of dependence relations, but all objective explanations require “metaphysical backing,” so to speak. Call this the *dependence theory* of explanation.<sup>8</sup> The connectives ‘in virtue of’ and ‘because’ here express an explanatory relation: facts about dependence relations objectively explain facts about what objectively explains what, and so objective explanations themselves depend on dependence relations. In Chapter 3 I argue that objective explanations *essentially depend* on dependence relations between things in the world, where essential dependence is defined in terms of real definition. To be an objective explanation is to be a relation between facts in which a constituent of the explanandum depends on a constituent of the explanans. That's what it is to be an objective explanation.

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<sup>8</sup> The dependence theory is sometimes referred to as the “tracking” theory of explanation: objective explanations “track” or “are backed by” dependence relations. The dependence theory of explanation finds expression in Kim (1994), Ruben (2012: ch. 7), Audi (2012a; 2012b), and Schaffer (2012; 2015), among others.

That's the essence of explanation. For the time being, however, I leave open how exactly objective explanations depend on dependence relations.

These four senses of 'explanation' are intricately intertwined. Both communicative explanation and doxastic explanation are subjective in that they depend on subjects for their existence. If there were no people, there would be no acts of explaining or doxastic states. Likewise, both communicative explanations and doxastic explanation are directed, as it were, at representational explanations. That is to say, communicative explanations express representational explanations, and doxastic explanations are beliefs that take representational explanations as their objects. More importantly, all three of these—communicative explanations, doxastic explanations, and representational explanations—aim to describe or represent objective explanations. A communicative explanation will be more or less good depending on how well it describes salient parts of an objective explanation, and whether some part of an objective explanation is salient depends on our epistemic and pragmatic interests.<sup>9</sup> Similarly, good representational explanations and doxastic explanations accurately represent objective explanations in the world. We seek true theories and true beliefs, representational and doxastic explanations that accurately represent objective explanations. Beyond describing or accurately representing objective explanations, there may be additional features that go into making communicative, representational, or doxastic explanations good (clarity for communicative explanations or simplicity for representational explanations, for

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<sup>9</sup> Salience can be understood subjectively or objectively. Something is objectively salient to the explanandum if it is part of an objective explanation for the explanandum. Something is subjectively salient to the explanandum if it is a part of an objective explanation for the explanandum *that is of interest to us*. Thus, subjective salience entails objective salience but not vice versa. Good communicative explanations describe things that are both objectively and subjectively salient to the explanandum.

example), and it is an open question whether additional good-making features make it probable that these three explanations succeed in describing or representing objective explanations.

Much more could be said about the relations between communicative, representational, doxastic, and objective explanations. For instance, further research could specify the relation between doxastic explanation and objective explanation, potentially leading to insights into the epistemology of understanding. If understanding is species of knowledge, namely, knowledge of objective explanations, then we should expect doxastic and objective explanation to be intimately intertwined. However, the foregoing remarks suffice for our purposes, since the accounts of metaphysical explanation that concern us are solely accounts of *objective* metaphysical explanation. Disputes over the nature of objective metaphysical explanation are more or less independent from issues concerning the other three senses of ‘explanation’, so these issues can be safely bracketed. Henceforth ‘explanation(s)’ and ‘explain(s)’ should be read as ‘objective explanation(s)’ and ‘objectively explain(s)’ unless otherwise noted. Leaving the other three senses behind, I turn now to the various kinds of objective explanation.

### *1.2 Kinds of Objective Explanation*

Objective explanation comes in kinds. Kinds of objective explanation are differentiated by the kinds of dependence relations in virtue of which they hold: causal explanations hold in virtue of causal dependence relations, conceptual explanations hold in virtue of conceptual dependence relations, metaphysical explanations hold in virtue of metaphysical dependence relations, and so on. Each kind of explanation can also take

different forms based on the relevant domain of facts and the interests of practitioners in those domains. The domains of natural science and history both seek causal explanations, but the causal facts involved in scientific explanations and of interest to scientists differ from the causal facts involved in historical explanations and of interest to historians. Institutional, political, and social causes are irrelevant to scientific explanation, just as physical, chemical, and biological causes are irrelevant to historical explanation. When a historian asks why Archduke Franz Ferdinand died, she doesn't want to be told that it's because the Archduke lost too much blood. Similarly, different forms of explanation arise within a given domain based on the relevant class of facts and the interests of practitioners. Chemical explanation and biological explanation fall under the domain of natural science, but these forms of explanation concern different classes of facts, namely, chemical facts and biological facts, and the chemist and the biologist have different interests.

These differences notwithstanding, the various kinds of objective explanation share much in common. Objective explanations of all kinds are relations between facts. Objective explanation should be treated as a variably polyadic relation and may be represented formally as follows:

the Xs explain the Ys

where 'the Xs' is a variably polyadic variable representing the explanans (or explanantia) and 'the Ys' is a variably polyadic variable representing the explanandum (or explananda), both ranging over facts. Objective explanations are widely assumed to be irreflexive, asymmetric, and transitive—formal features they inherit from the dependence relations in virtue of which they hold.



### *1.3 Metaphysical Explanation*

The kind of objective explanation that concerns us is metaphysical explanation. Examples of metaphysical explanation abound in philosophy. For instance, the fact that Fido exists metaphysically explains the fact that the proposition <Fido exists> is true, and the fact that my sweater is navy metaphysically explains the fact that it is blue. These two examples of metaphysical explanation—concerning truths and truthmakers, determinate and determinable properties—are relatively uncontroversial. Other alleged examples of metaphysical explanation stir up considerably more controversy, and whether one thinks the examples are genuine cases of metaphysical explanation often depends on one's overall metaphysical stance.<sup>10</sup> Here's a sampling of other alleged examples, some more controversial than others:

- Neurophysiological facts metaphysically explain mental facts.
- Facts about the existence of non-empty sets are metaphysically explained by facts about the existence of their members.
- Social facts are metaphysically explained by non-social facts.
- Facts about categorical properties metaphysically explain facts about dispositional properties.
- Facts about parts and their arrangement metaphysically explain facts about wholes.
- Facts about the existence of Aristotelian universals are metaphysically explained by facts about their exemplifiers.
- Naturalistic facts metaphysically explain moral facts.
- Non-aesthetic facts metaphysically explain aesthetic facts.

The perceived ubiquity of metaphysical explanation has led some philosophers to argue that metaphysical explanation is a core notion of philosophy, perhaps even the core notion. Jonathan Schaffer (2009) contends that the task of metaphysics is to say what metaphysically explains what, limning the hierarchical structure of reality. Likewise, Kit Fine observes that

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<sup>10</sup> In general, Humeans find metaphysical explanation to be more widespread than non-Humeans.

questions of metaphysical explanation preoccupy philosophy, noting that metaphysical explanation stands to philosophy as causal explanation stands to science.<sup>11</sup>

What distinguishes metaphysical explanation from other kinds of explanation is the fact that metaphysical explanations hold in virtue of metaphysical dependence relations. It is a kind of non-causal explanation. Metaphysical explanations differ from causal explanations in three respects: they needn't relate things in space and time, are synchronic, and may involve a single event. Consider Fido and the proposition <Fido exists>. The fact that Fido exists metaphysically explains the fact that <Fido exists> is true, yet the proposition <Fido exists>, like other propositions, is not located in space or time. Even if we were to suppose that Fido and the relevant proposition are related in time, the fact that Fido exists and the fact that <Fido exists> is true would obtain simultaneously. Moreover, metaphysical explanations may involve a single event.<sup>12</sup> Take, for example, the event of Oswald's shooting Kennedy and suppose for a moment that we are good utilitarians. The fact that Oswald's shooting Kennedy fails to maximize utility metaphysically explains the fact that that this very same event is wrong (unless one has an ultra fine-grained view of events).

To be sure, accounts of causation are notoriously controversial, and our ability to distinguish metaphysical explanations from causal explanations is hindered by the lack of consensus concerning causation. That said, none of the characteristics of causal explanations cited here are especially controversial. Many would agree that causal explanations relate things in space and time, are diachronic, and involve distinct events. These characteristics

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<sup>11</sup> Fine (2012: 40). Karen Bennett (2011a; 2011b) and Shamik Dasgupta (manuscript) similarly laud metaphysical explanation (or related notions of metaphysical dependence).

<sup>12</sup> Audi (2012a: 104).

should be regarded as constraints on any plausible account of causation. Distinguishing metaphysical explanations from causal explanations on these grounds is relatively uncontroversial.

#### *1.4 Varieties of Metaphysical Explanation*

The sheer diversity of alleged examples of metaphysical explanation indicates that metaphysical explanation, like other kinds of objective explanation, comes in several varieties or species. Delineating species of metaphysical explanation will prove fruitful later when addressing alleged counterexamples to the transitivity of metaphysical explanation and Schaffer's contrastive treatment of metaphysical explanation.<sup>13</sup> On my view, metaphysical explanation is a genus with four species, a view that one might call *generic pluralism* about metaphysical explanation. These species will figure prominently in my critique of Humean metaphysical explanation in the next chapter. Before the four species of metaphysical explanation can be characterized, however, a pair of distinctions must be introduced: a full/partial distinction and a rigid/generic distinction.

Since metaphysical explanation is a kind of explanation, a distinction should be made between full and partial metaphysical explanations. So, for example, the fact that the ball is red *fully* metaphysically explains the fact that the ball is colored. In contrast, the fact that the ball is red *partially* metaphysically explains the fact that the ball is red and round. More formally:<sup>14</sup>

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<sup>13</sup> I address transitivity in §2.2.3 and contrastivity in §3.8.

<sup>14</sup> I treat metaphysical explanation as a singular-singular relation here and in subsequent definitions for ease of exposition.

*Full Metaphysical Explanation:* X fully metaphysically explains Y =<sub>df.</sub> (i) X metaphysically explains Y, and (ii) there is no Z such that Z ≠ X and Z metaphysically explains Y

*Partial Metaphysical Explanation:* X partially metaphysically explains Y =<sub>df.</sub> (i) X metaphysically explains Y, and (ii) there is a Z such that Z metaphysically explains Y

Notice that full metaphysical explanation strictly entails partial metaphysical explanation but not vice versa. That is, necessarily, if X fully metaphysically explains Y, then X partially metaphysically explains Y. (That partial metaphysical explanation does not strictly entail full metaphysical explanation can be seen from the example of partial metaphysical explanation and definitions above.)

An equally important but overlooked distinction is the rigid/generic metaphysical explanation distinction. Rigid metaphysical explanation and generic metaphysical explanation may be defined as follows:<sup>15</sup>

*Rigid Metaphysical Explanation:* X rigidly metaphysically explains Y =<sub>df.</sub> (i) X metaphysically explains Y, and (ii) necessarily, any maximal full metaphysical explanation chain of Y includes X

*Generic Metaphysical Explanation:* X generically metaphysically explains Y =<sub>df.</sub> (i) X metaphysically explains Y, and (ii) it is not the case that necessarily, any maximal full metaphysical explanation chain of Y includes X

A full metaphysical explanation chain involves only full metaphysical explanations; a maximal full metaphysical explanation chain of Y is a full metaphysical explanation chain running from Y to a terminus, a metaphysically unexplained fact (or, if metaphysical explanation can be non-well-founded, a full metaphysical explanation chain that infinitely descends from Y). Consider the following example of rigid-full metaphysical explanation: The fact that Fido exists rigidly fully metaphysically explains the fact that <Fido exists> is

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<sup>15</sup> The modality invoked in these definitions is metaphysical necessity/possibility.

true. That is to say, the fact that Fido exists fully metaphysically explains the fact that <Fido exists> is true, and necessarily, any maximal full metaphysical explanation chain of the fact that <Fido exists> is true includes the fact that Fido exists. It is impossible for there to be a maximal full metaphysical explanation chain of the fact that <Fido exists> is true that does not include the fact that Fido exists. In cases of rigid metaphysical explanation, then, any maximal full metaphysical explanation chain of the explanandum fact must include a *unique* fact. In contrast, the fact that Fido exists generically fully metaphysically explains the fact that <some dog exists> is true. In other words, the fact Fido exists fully metaphysically explains the fact that <some dog exists> is true, and it is not the case that, necessarily, any maximal full metaphysical explanation chain of the fact that <some dog exists> is true includes the fact that Fido exists. The fact that Fido exists could be replaced by, say, the fact that Spot exists or the fact that Rover exists in a maximal full metaphysical explanation chain of the fact that <some dog exists> is true. In cases of generic metaphysical explanation, a maximal full metaphysical explanation chain of the explanandum could include *any number* of facts that share certain general features. It should be noted that the rigid/generic metaphysical explanation distinction is exhaustive and mutually exclusive. Any metaphysical explanation claim must be either rigid or generic, and it cannot be both rigid and generic.

Since the rigid/generic metaphysical explanation distinction cuts across the full/partial metaphysical explanation distinction, the distinctions can be combined to generate the four species of metaphysical explanation: rigid-partial, rigid-full, generic-partial,

and generic-full.<sup>16</sup> The examples cited in the preceding paragraph are cases of rigid-full metaphysical explanation and generic-full metaphysical explanation, respectively. For example, rigid-full metaphysical explanation may be defined in the following manner:

*Rigid-Full Metaphysical Explanation:* X rigidly fully metaphysically explains Y =<sub>df.</sub> (i) X metaphysically explains Y, (ii) necessarily, any maximal full metaphysical explanation chain of Y includes X, and (iii) there is no Z such that  $Z \neq X$  and Z metaphysically explains Y

The first clause in this definition specifies what all species of metaphysical explanation hold in common, while the second and third clauses specify the differentia. The second clause specifies whether the metaphysical explanation is rigid or generic, followed by a third clause that specifies whether it is full or partial. Definitions of the remaining three species of metaphysical explanation may be constructed *mutatis mutandis*.

No doubt, further distinctions could be made between various metaphysical explanations, such as the distinction between direct and indirect metaphysical explanations.<sup>17</sup> Perhaps there are more than four species of metaphysical explanation, or perhaps some species can be broken down into sub-species. But the four species described above will do for now; it is best to move on to more substantive philosophical issues surrounding metaphysical explanation.

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<sup>16</sup> Those allergic to genus-species talk may think of metaphysical explanation as a disjunctive notion: X metaphysically explains Y iff X rigidly partially metaphysically explains Y or X rigidly fully metaphysically explains Y or X generically partially metaphysically explains Y or X generically fully metaphysically explains Y.

<sup>17</sup> See Fine (2012) for seemingly endless distinctions.

### 1.5 Humeanism and Non-Humeanism About Scientific Explanation

To gain a better understanding of the emerging dispute concerning metaphysical explanation, it is helpful to view it through the lens of the ongoing dispute concerning scientific explanation. Framing the literature on metaphysical explanation using this parallel illuminates the main controversies that divide metaphysicians on the nature of metaphysical explanation and gives shape to an amorphous body of literature. That these two disputes should parallel each another is not altogether surprising. Many philosophers, such as Fine (2012), Schaffer (2009; 2012; 2015), and Paul Audi (2012a; 2012b), perceive a close analogy between causal dependence and metaphysical dependence. And since scientific explanation and metaphysical explanation hold in virtue of these dependence relations, similarities will naturally extend to accounts of scientific and metaphysical explanation for those who accept the close analogy.<sup>18</sup>

Accounts of scientific explanation roughly fall under two broad metaphysical views: Humeanism and non-Humeanism. Inspired by David Hume, the great denier of necessary connections, Humeans subscribe to *Hume's Dictum*, the thesis that there are no fundamental necessary connections between distinct entities.<sup>19</sup> Any entity can freely recombine with any other distinct entity. Two entities are usually considered to be distinct if they are not numerically identical or if they do not overlap mereologically.<sup>20</sup> Another part of the Humean

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<sup>18</sup> Schaffer (2015: §1.4) independently arrives at many of these parallels between scientific and metaphysical explanation, though he does not discuss divisions between Humeans and non-Humeans. In this vein, Tobias Wilsch (forthcominga) defends a deductive-nomological account of metaphysical explanation.

<sup>19</sup> Whether Hume himself endorsed Humeanism is contested. See Strawson (2015).

<sup>20</sup> See Wilson (2010) for a critical discussion of Hume's Dictum and a survey of possible interpretations of the distinctness requirement. I discuss the distinctness requirement further in §2.1.2 and §2.2.5.

package is the doctrine of *Humean Supervenience*. According to the doctrine of Humean Supervenience, all nomic entities—entities like “modal properties, laws, causal connections, chances”<sup>21</sup>—supervene on the spatiotemporal distribution of properties, relations, and quantities had by fundamental entities. Humeans lack consensus on which properties, relations, and quantities may be had by fundamental entities and which entities are fundamental, but they usually restrict the properties to intrinsic, categorical properties.<sup>22</sup> Reality (or at least fundamental reality) consists of the totality of this spatiotemporal distribution. Call this distribution the *Humean mosaic*.<sup>23</sup> For Humeans, there can be no difference in nomic entities at two worlds without a corresponding difference in their Humean mosaics. Nomic entities and Humean mosaics necessarily covary. Because supervenience is symmetric and Humeans ultimately want an asymmetric relation between nomic entities and the Humean mosaic, the notion of grounding, which I discuss in the subsequent chapter, often supplements supervenience.

Non-Humeans, on the other hand, reject Hume’s Dictum and its corollary, Humean Supervenience. They insist on the indispensability of fundamental necessary connections in the world. Nomic entities, according to non-Humeans, fail to supervene on the Humean mosaic. Two worlds can differ in their nomic entities (their laws, for example) without differing in their Humean mosaics.

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<sup>21</sup> Lewis (1986: 111).

<sup>22</sup> David Lewis (1983; 1986), the godfather of contemporary Humeanism, restricts the Humean mosaic to point-sized entities (spacetime points or entities occupying those points), their spatiotemporal relations, and their perfectly natural, non-modal monadic properties. See Hall (2012) for a stellar overview of Lewis’s metaphysics.

<sup>23</sup> For similar formulations of Humean Supervenience, see the introduction to Lewis (1986), Loewer (1996; 2012), Maudlin (2007: 51), and Hall (2012; forthcoming).



To fill out these two metaphysical pictures, I will focus on two main controversies about scientific explanation that divide Humeans and non-Humeans. These controversies are closely related, stemming from the root disagreement over Hume's Dictum and Humean Supervenience. The two controversies concern the nature of causation and the nature of laws of nature. Since these controversies about scientific explanation are of merely instrumental value to us, my treatment of them will be superficial and brief. The two controversies are not exhaustive; there are other sticking points between Humeans and non-Humeans about scientific explanation, including the nature of nomological necessity and how laws of nature support counterfactuals.<sup>24</sup>

First, the nature of causation.<sup>25</sup> The most influential Humean account of causation is David Lewis's counterfactual account. For Lewis, causal dependence just is counterfactual dependence. To say that one event causally depends on a second event is just to say that if the second had not occurred, then the first would not have occurred.<sup>26</sup> (Non-trivial) counterfactuals, in turn, are made true by features of the Humean mosaic that are most salient. Non-Humeans about causation deny Hume's Dictum and hold that causation is a kind of fundamental necessity connecting distinct entities. Opinions as to the nature of this necessary connection vary widely, with some contending that causation is a primitive relation and others defending an account of causation in terms of dispositions or powers.

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<sup>24</sup> John Roberts (2008: 347-355) provides a helpful overview of these sticking points.

<sup>25</sup> My attention will be restricted to accounts of singular causation, that is, causal relations between particulars.

<sup>26</sup> Problems with causal preemption force Lewis's counterfactual account to grow increasingly complex. See his (2000), for example.

The second main controversy dividing Humeans and non-Humeans about scientific explanation concerns the nature of laws of nature. According to Humeans, laws of nature merely summarize the spatiotemporal distribution of properties, relations, and quantities had by fundamental entities. Laws of nature, on the Mill-Ramsey-Lewis Best System Account, are simply the propositions that summarize the Humean mosaic with the best balance of simplicity and informativeness. In this way, the laws of nature supervene on or are grounded in the Humean mosaic. Non-Humeans reject this summarizing conception of laws of nature in favor of a governing conception. Laws of nature do more than summarize the world; they govern or constrain the world, according to non-Humeans. Laws of nature help explain why the world is the way it is.

### *1.6 The New Humean/Non-Humean Dispute*

The dispute over the nature of metaphysical explanation, though nascent, parallels the Humean/non-Humean dispute over scientific explanation in some striking ways. As with scientific explanation, Humeans and non-Humeans about metaphysical explanation part ways on Hume's Dictum and Humean Supervenience. Given their commitment to Hume's Dictum, Humeans about metaphysical explanation deny that metaphysical dependence is a fundamental necessary connection between distinct entities. Humeans about metaphysical explanation likewise adhere to the doctrine of Humean Supervenience, unfolding the doctrine into a hierarchical picture of the world. Reality has levels: the lowest or fundamental level of reality is the Humean mosaic, and higher or derivative levels of reality are spatiotemporal distributions of properties, relations, and quantities had by non-fundamental entities. Humeans about metaphysical explanation maintain that higher levels of reality

supervene on lower levels of reality, ultimately supervening on the Humean mosaic. For Humeans, there can be no difference in higher levels at two worlds without a corresponding difference in their fundamental levels. Reality, then, consists of the totality of the spatiotemporal distributions of all levels, the Humean mosaic plus all higher levels. Call this the *hierarchical Humean mosaic*.<sup>27</sup>

Like non-Humeans about scientific explanation, non-Humeans about metaphysical explanation reject both Hume's Dictum and Humean Supervenience. They hold that metaphysical explanation involves fundamental necessary connections between distinct entities, and they deny that higher levels of reality supervene on the Humean mosaic. Non-Humeans about metaphysical explanation may even reject the hierarchical picture of reality altogether.<sup>28</sup> This basic disagreement over Hume's Dictum and Humean Supervenience again gives rise to two main controversies dividing Humeans and non-Humeans: one concerning the nature of metaphysical dependence and the other concerning the nature of "laws of metaphysics." At present I wish only to sketch the general Humean and non-Humeans positions on both controversies, reserving the finer points for subsequent chapters.

The first divide concerns the nature of metaphysical dependence. Their adherence to Hume's Dictum motivates Humeans to postulate a notion of metaphysical dependence that requires no fundamental necessary connections between distinct entities. Many Humeans, following Jonathan Schaffer, maintain that grounding does the job. Grounding is thought to be a non-causal relation of generation, having the formal features of irreflexivity, asymmetry,

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<sup>27</sup> I characterize the hierarchical Humean mosaic more fully in §2.1.1.

<sup>28</sup> John Heil (2003), for instance, takes the hierarchical picture of reality to task.

and transitivity. Metaphysical explanations hold in virtue of grounding relations, on the Humean view. Non-Humeans about metaphysical explanation think that metaphysical explanations hold in virtue of metaphysical dependence relations that require fundamental necessary connections between distinct entities. The preferred way of construing non-Humean metaphysical dependence is in terms of essence or essential dependence. Essential dependence precludes free recombination.

The second controversy about metaphysical explanation concerns the nature of laws of metaphysics. Metaphysical explanations involve various laws that can be expressed as universal generalizations, such as “all non-empty sets metaphysically depend on their members” or “all determinable properties metaphysically depend on determinate properties.” On the Humean view, the laws of metaphysics supervene on the hierarchical Humean mosaic. There can be no difference in the laws of metaphysics at two worlds without a corresponding difference in their hierarchical Humean mosaics. Humeans about metaphysical explanation tend to operate with a best system account of laws of metaphysics. The laws of metaphysics are the regularities included in the system for representing the hierarchical Humean mosaic with the best balance of simplicity and informativeness. The laws of metaphysics summarize regularities spanning all levels of reality, the entire hierarchical Humean mosaic. In addition to summarizing, non-Humeans hold that the laws of metaphysics govern or constrain the world. The laws of metaphysics help explain why the levels of reality are the way that they are.

Pointing out these parallels between the Humean/non-Humean disputes concerning scientific explanation and metaphysical explanation is not to deny any important differences

between the two disputes. For instance, Schaffer (2015) maintains that metaphysical dependence is deterministic and connects non-distinct entities, while causal dependence is non-deterministic and connects distinct entities.<sup>29</sup> Differences such as these concerning the nature of metaphysical dependence may vary well generate new issues and concerns within the Humean/non-Humean dispute concerning metaphysical explanation.

Nonetheless, the parallels between the two Humean/non-Humean disputes, I believe, will prove instructive and open up fruitful ways of understanding and evaluating competing accounts of metaphysical explanation. In many ways, the dispute over the nature of metaphysical explanation is the new Humean/non-Humean dispute, a new battlefield in the timeworn conflict between Humeans and non-Humeans. In the chapters that follow, I draw on this parallel to critique the leading Humean account of metaphysical explanation and to develop and defend my own non-Humean account.

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<sup>29</sup> A further potential difference is that metaphysical dependence is an internal relation, while causation is commonly thought to be an external relation. For the internal/external relation distinction, see §3.8.

## Chapter 2:

### *Against Humean Metaphysical Explanation*

Among the fragmentary extant accounts of metaphysical explanation, no philosopher self-identifies in print as a Humean about metaphysical explanation. Even so, Humean accounts of metaphysical explanation can be pieced together from the writings of avowed Humeans (most notably, Jonathan Schaffer) on metaphysical explanation and the related notions of metaphysical dependence and laws of metaphysics. The first task of the present chapter is to construct from these scattered fragments a comprehensive Humean account of metaphysical explanation. A comprehensive account will include Humean treatments of metaphysical dependence and the laws of metaphysics. I then show how even the most developed Humean account of metaphysical explanation faces a circularity problem that compels Humeans either to deny the explanatory role of laws of metaphysics or to compromise their commitment to Humean Supervenience.

## *2.1 Constructing Humean Metaphysical Explanation*

### *2.1.1 The Hierarchical Humean Mosaic*

As earlier mentioned, many contemporary Humeans regard reality as hierarchical. The world comprises levels, some higher and some lower, connected by metaphysical dependence.<sup>30</sup> All levels of reality are equally real—and real in precisely the same sense. Reality's lowest level, the fundamental level, consists of the spatiotemporal distribution of properties, relations, and quantities had by fundamental entities. All other levels of reality are less fundamental and derivative, consisting of spatiotemporal distributions of properties, relations, and quantities had by non-fundamental entities. Higher levels of reality metaphysically depend on lower levels of reality, and everything ultimately metaphysically depends on reality's fundamental level. The level of physics, the story goes, rests at the bottom, with higher levels such as the level of chemistry and the level of psychology metaphysically depending on the level of physics. If reality's fundamental level is the Humean mosaic, then the complete hierarchy of levels is the hierarchical Humean mosaic: mosaics on top of mosaics, level after level of loose and separate matters of fact.

Of course, some Humeans reject this hierarchical picture of the world. They see no need for metaphysical dependence, instead going in for an eliminative or egalitarian picture of the world. Theodore Sider (2011), for example, defends an eliminative view of reality on which the world just is the Humean mosaic. There exists the spatiotemporal distribution of properties, relations, and quantities had by the entities of the best physics, and that's all. Nothing metaphysically depends on anything else; no entity is more or less fundamental than

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<sup>30</sup> One needn't look long to find talk of levels in the contemporary metaphysics. See, for example, Bennett (2011b), deRosset (2013), and Schaffer (2012; 2015).

any other entity. The egalitarian picture affirms the reality of all levels but denies that any entity metaphysically depends on any other entity. The level of psychology is no less fundamental than the level of physics. All levels are equally fundamental (if talk of levels is even appropriate).

For eliminative and egalitarian Humeans, metaphysical explanation needs no account. Assuming that explanations hold in virtue of dependence relations, metaphysical explanations must hold in virtue of metaphysical dependence. In a world bereft of metaphysical dependence, there are no metaphysical explanations. Consequently, Humeans who accept that there are metaphysical explanations must hold to a hierarchical picture of the world, a view on which some entities metaphysically depend on other entities.<sup>31</sup> Without hierarchy, there is no Humean metaphysical explanation.<sup>32</sup>

### 2.1.2 Humean Metaphysical Dependence as Grounding

According to hierarchical Humeans, metaphysical dependence connects the scaffolded levels of the hierarchical Humean mosaic. The preferred notion of metaphysical dependence for contemporary Humeans is a relation called *grounding*.<sup>33</sup> Just as causation connects the world across time, grounding allegedly connects the world across levels. The more fundamental grounds the less fundamental, and something is fundamental just in case it is ungrounded. Grounding is the glue that holds the levels of the hierarchical Humean

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<sup>31</sup> Audi (2012a) argues for the reality of metaphysical dependence (specifically, grounding) wielding this very reasoning.

<sup>32</sup> In this vein, Lewis (1986: 221-224) maintains that all explanation is causal explanation.

<sup>33</sup> Not everyone affirms that grounding is a relation. Fabrice Correia (2010), Benjamin Schnieder (2011), and Kit Fine (2012a; 2012b) prefer to remain ontologically neutral on whether grounding is a relation and express grounding as a sentential operator.



mosaic together. For contemporary Humeans, grounding occupies the role that supervenience occupied for earlier generations of Humeans. Although asymmetry has been routinely read into supervenience claims, supervenience is not asymmetric if strictly interpreted. Grounding, its proponents advertise, is the asymmetric relation of metaphysical dependence that Humeans have sought after all along. Nomic entities supervene on the Humean mosaic precisely because nomic entities are grounded in the Humean mosaic.<sup>34</sup>

While complete consensus on grounding is impossible to come by, Humeans have reached a (very) rough consensus on the nature of grounding. Grounding is generally taken to be conceptually primitive, that is, incapable of conceptual analysis.<sup>35</sup> Humeans attempt to communicate the concept of grounding through paradigm cases. Paradigm cases of grounding supposedly include the relation between truths and their truthmakers, the relation between mental states and physical states, the relation between complex truths and simpler truths, the relation between properties and substances, and the relation between non-empty sets and their members. Humeans further attempt to communicate the concept of grounding through an analogy with causation. Like causation, grounding is a relation of generation. The idea, which Humeans admit is elusive, is that the grounds generate or produce what is grounded. In other words, grounding involves “a transference of reality: the grounded entity

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<sup>34</sup> Compare Loewer (1996) and (2012) for a prominent example of this shift. As Kim (1993: 167) notes, “supervenience itself is not an explanatory relation. It is not a ‘deep’ metaphysical relation; rather, it is a ‘surface’ relation that reports a pattern of property covariation, suggesting the presence of an interesting dependency relation that might explain it.” For contemporary Humeans, grounding is the preferred “deep” metaphysical relation that explains supervenience.

<sup>35</sup> Schaffer (2009; 2012; 2015), Bennett (2011a), and Audi (2012a; 2012b) consider grounding (or the related notion of building) to be conceptually primitive.

exists *in virtue of* its grounds.”<sup>36</sup> In the same way that scientific explanations hold in virtue of causal relations, Humeans purport that metaphysical explanations hold in virtue of grounding relations. Metaphysical explanation “tracks” grounding, or grounding “backs” metaphysical explanation, so to speak.<sup>37</sup> In a slogan, metaphysical explanation is grounding explanation.

Moreover, grounding is widely regarded to be a necessary connection.<sup>38</sup> Holding the laws of metaphysics fixed, the grounds necessitate the grounded. It is metaphysically necessary that if the grounds are present, then the grounded is present. It is metaphysically impossible for Obama to exist without his singleton, or for the ball to be spherical without having a disposition to roll. In its formal features, grounding is commonly assumed to be irreflexive, asymmetric, and transitive.<sup>39</sup> And like metaphysical explanation itself, grounding permits a full/partial distinction (e.g., the truth of the proposition <the ball is red> partially grounds the truth of the complex proposition <the ball is red and round>).

Of course, beneath this rough consensus lurk many divisions. One of the more divisive issues concerns the relata of grounding. Some, such as Fine (2012) and Rosen

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<sup>36</sup> Schaffer (2015: §4.5). Emphasis in original. Though Schaffer describes causation as a generative relation, it does not involve a transference of reality: “With causation one is not looking at a transference of reality. As before, the effect still has intrinsic reality unto itself, and may indeed be ontologically subsistent in its own right. This is why no first cause is needed.”

<sup>37</sup> Audi (2012a; 2012b) and Schaffer (2012; 2015) frequently describe the relation between grounding and metaphysical explanation in these ways. Fine at times ostensibly identifies grounding with metaphysical explanation. See, for example, his (2012: 38).

<sup>38</sup> Correia (2005), deRosset (2010, 2013), Fine (2012), Rosen (2010), Audi (2012a; 2012b), Trogon (2013), Dasgupta (2014), and others explicitly endorse necessitarianism about grounding. See Alex Skiles (2014) for two arguments against necessitarianism.

<sup>39</sup> Fabrice Correia (2010), Kit Fine (2010; 2012a; 2012b), Gideon Rosen (2010), Schaffer (2009), and Benjamin Schnieder (2011) all assume that grounding has these formal properties. Grounding is also widely regarded to be hyperintensional, non-monotonic, factive, and well-founded. See Jenkins (2011) and Schaffer (2012) for challenges to the irreflexivity and transitivity of grounding, respectively.

(2010), hold that grounding relates facts (understood as obtaining states of affairs or true propositions), while others, namely, Schaffer (2009; 2012; 2015) hold that grounding relates entities from any ontological category. Similarly, grounding proponents wrangle over whether the relation is singular-singular, plural-singular, plural-plural, or variably polyadic.<sup>40</sup> But we needn't quibble over these details, for my criticisms of Humean metaphysical explanation do not turn on them. From here on I will assume the more permissive view that grounding is a variably polyadic relation between entities of any ontological category.

In order to square grounding with Hume's Dictum, which forbids fundamental necessary connections between distinct existences, Humeans sometimes deny that grounding connects distinct entities. Though Humeans frequently disagree about what the distinctness invoked in Hume's Dictum amounts to, it at least amounts to numerical distinctness.<sup>41</sup> Entities are numerically distinct just in case they are not identical. Schaffer (2015), the only Humean to explicitly address grounding and the distinctness requirement, proposes a ground-theoretic interpretation of the distinctness requirement. Entities are distinct, Schaffer suggests, just in case they are not identical and not connected by grounding:

...distinct entities are *neither identical nor connected by grounding* (neither grounds the other, nor do they have a common ground). Metaphysically, distinct entities are wholly separable portions of reality, with no common roots. On this ground-theoretic treatment of distinctness, given entities *a* and *b*, there are then three options: identity ( $a=b$ ), grounding-connection (*a* grounds *b*, *b* grounds *a*, or  $a \neq b$  but and there is some entity *c* which grounds both *a* and *b*), or otherwise distinctness.<sup>42</sup>

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<sup>40</sup> Guided by a commitment to contrastive accounts of causation and explanation, Schaffer (2012; 2015) treats grounding as a quaternary relation between contrasts or differences. On his contrastive treatment of grounding, *X* rather than *X\** grounds *Y* rather than *Y\**, where *X* and *Y* are entities from any ontological category and *X\** and *Y\** are incompatible contrast entities. I consider and reject the contrastivity of metaphysical explanation in §3.8.

<sup>41</sup> See Wilson (2010) for a catalogue of distinctness conceptions.

<sup>42</sup> Schaffer (2015: §3.3). Emphasis in original.

It follows trivially from this ground-theoretic distinctness requirement that grounding relates non-distinct entities. All grounded entities are connected by grounding to their grounds and therefore non-distinct from their grounds. It seems to me that Schaffer's ground-theoretic distinctness requirement is an obvious cheat, but I won't press the issue just now. I will return to grounding and the distinctness requirement later in this chapter.<sup>43</sup>

Other Humeans deny that the grounding relation is fundamental. And since Hume's Dictum only precludes *fundamental* necessary connections, they maintain that grounding remains compatible with Hume's Dictum. Denying the fundamentality of grounding amounts to saying that the grounding relation is itself grounded. For instance, both Bennett (2011b) and deRosset (2013) argue that if X grounds Y, then this grounding relation between X and Y is itself grounded in X. Grounding, as Bennett puts it, is a "superinternal" relation: "A superinternal relation is one such that the intrinsic nature of only *one* of the relata—or, better, one side of the relation—guarantees not only that the relation holds, but also that the other relatum(a) exists and has the intrinsic nature it does."<sup>44</sup> The grounds, according to Bennett and deRosset, not only ground the grounded entity; they ground the grounding relation itself. Schaffer (2015) likewise denies the fundamentality of grounding. With his taste for desert landscapes, Schaffer claims that, "grounding is a real but derivative phenomenon, derivable from the laws of metaphysics."<sup>45</sup> By calling grounding "derivative" Schaffer seems

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<sup>43</sup> Bennett (2011a: 91-92) similarly maintains that the building relation, a relation akin to grounding, relates non-distinct entities. Building relates entities that "overlap" in some sense that is neither mereological nor spatiotemporal, and overlapping entities are not distinct. I find Bennett's notion of non-spatiotemporal overlap too vague to be useful.

<sup>44</sup> Bennett (2011b: 32). Emphasis in original. Schaffer (2015: §4.5) follows Bennett: "fixing the intrinsic nature of the grounding side of the relation alone guarantees that the grounded side exists, has the intrinsic nature that it does, and is grounded in that way."

<sup>45</sup> Schaffer (2015: §3.3).

to mean that grounding is itself grounded, since he consistently uses the term ‘derivative’ to designate grounded entities.<sup>46</sup> And if grounding is itself grounded, then it is not fundamental. The laws of metaphysics ground grounding, but Schaffer remains curiously silent on how exactly this works and whether the laws of metaphysics are themselves derivative.<sup>47</sup> Fundamental reality, then, is sparse and has no place for grounding for such Humeans. Later in this chapter I will consider the coherence these positions.<sup>48</sup>

### *2.1.3 Humean Laws of Metaphysics*

Compared to Humean metaphysical dependence, Humean treatments of the laws of metaphysics are rather undeveloped.<sup>49</sup> Metaphysical explanations involve various laws of metaphysics that can be expressed as universal generalizations (e.g., “all determinable properties metaphysically depend on determinate properties”). As with laws of nature, Humeans regard laws of metaphysics as nomic entities, and so the laws of metaphysics must ultimately be grounded in the Humean mosaic, given Humean Supervenience.

Humeans about metaphysical explanation operate with a summarizing conception of laws of metaphysics. Rather than governing or constraining entities in the world, the laws of metaphysics merely summarize the hierarchical Humean mosaic. The Humean view of laws of metaphysics will be a kind of regularity account, according to which laws of metaphysics are summaries of generic features spanning different levels of reality. Presumably Humeans

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<sup>46</sup> See Schaffer (2009: 373, 379) and (2012: 122-123).

<sup>47</sup> This metaphysical taciturnity has some precedent in Schaffer’s work. See his (2015: §2.4) and (2008: 93, 99), where he is similarly taciturn concerning how exactly Humean causation and the laws of nature are derivative.

<sup>48</sup> It’s worth mentioning that grounding has its fair share of critics. For doubts about grounding’s intelligibility and utility, see Daly (2012), Wilson (2014), and Koslicki (forthcoming).

<sup>49</sup> The work of Tobias Wilsch (forthcominga; forthcomingb) is the lone exception.

will opt for a best system account of laws of metaphysics, fashioned after David Lewis's (1983; 1994) best system account of laws of nature. On Lewis's best system account, the laws of nature exclusively summarize generic features at the fundamental level of reality, patterns in the Humean mosaic. But on a Lewisian-style best system account of laws of metaphysics, the laws of metaphysics will summarize generic features spanning different levels of reality, patterns in the hierarchical Humean mosaic.

The overarching idea for a best system account of laws of metaphysics is that there is some best system for representing the hierarchical Humean mosaic. Systems, which are just sets of true propositions, should possess two virtues: simplicity and informativeness. Degree of simplicity lies in broadly syntactic features of the representation (vocabulary referring to properties, relations, and quantities had by fundamental and non-fundamental entities); degree of informativeness lies in the representation's ability to tell us the features of the actual world (the more informative, the more a system will tell us about the actual world). Among the correct representations of the hierarchical Humean mosaic, the best system is the representation that achieves the best balance of simplicity and informativeness.<sup>50</sup> The laws of metaphysics, then, are those generalizations included in the best system for representing the hierarchical Humean mosaic.

On a best system account of laws of metaphysics, the laws of metaphysics are ultimately grounded in the Humean mosaic. For Humeans, the laws of metaphysics are directly grounded in generic features of the hierarchical Humean mosaic. That is to say, generic features of the hierarchical Humean mosaic ground the truth of those generalizations

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<sup>50</sup> For present purposes I will indulge in Lewis's hope that nature is kind and delivers a unique robustly best system.

included in the best system. Humean laws of metaphysics, in other words, are true in virtue of generic features of the hierarchical Humean mosaic. These generic features are, in turn, grounded in particular features of the hierarchical Humean mosaic, and these particular features are then ultimately grounded in the fundamental level of reality, the Humean mosaic. (Humeans who prefer a less linguistic conception of laws of metaphysics may identify the laws of metaphysics with the generic features of the hierarchical Humean mosaic themselves, as opposed to propositions whose truth is grounded in those generic features. Either way the laws of metaphysics are ultimately grounded in the Humean mosaic.)

## *2.2 Against Humean Metaphysical Explanation*

Taken together, the above Humean treatments of metaphysical dependence and laws of metaphysics form the bulk of a comprehensive Humean account of metaphysical explanation. Obviously much more could be (and presumably will be) said by Humeans about the nature of metaphysical explanation, but we have in place the basic contours of a Humean account of metaphysical explanation. In what follows I raise a circularity objection to Humean metaphysical explanation, modeled after a familiar circularity objection to Humean scientific explanation. I then explore possible Humean attempts to answer the charge of circularity and argue that all of these answers come at significant costs. Avoiding circularity forces Humeans about metaphysical explanation either to deny the explanatory role of laws of metaphysics or to compromise their commitment to Humean Supervenience.

### 2.2.1 *The Circularity Objection to Humean Scientific Explanation*

Humean accounts of scientific explanation have long been charged with explanatory circularity. The problem arises for any Humean regularity account of laws of nature on which the laws of nature play a role in scientific explanation. Roughly, the objection is that particular facts about the Humean mosaic help explain facts about the laws of nature, and facts about the laws of nature help explain particular facts about the Humean mosaic. By transitivity, particular facts about the Humean mosaic explain themselves. But particular facts about the Humean mosaic can't explain themselves, so Humeans are faced with the unhappy choice of discarding their account of laws of nature or denying that laws of nature explain.

The circularity objection, in one form or another, has been advanced against Humean scientific explanation by many. Alexander Bird (2007) puts the problem this way:

Laws have an explanatory capacity. They explain their instances, indeed they explain the regularities we find in nature. Could the laws fulfill this explanatory role if they themselves were regularities? Anti-Humeans allege they cannot. Facts may explain other facts but they cannot explain themselves.<sup>51</sup>

Timothy Maudlin (2007) voices a similar worry:

If the laws are nothing but generic features of the Humean Mosaic, then there is a sense in which one cannot appeal to those very laws to *explain* the particular features

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<sup>51</sup> Bird (2007: 86). The objection finds one of its earliest expressions in David Armstrong (1983: 40), whose target is the Humean naïve regularity account of laws of nature:

Suppose, however, that laws are mere regularities. We are then trying to explain the fact that all observed Fs are Gs by appealing to the hypothesis that all Fs are Gs. Could this hypothesis serve as an explanation? It does not seem that it could. That all Fs are Gs is a complex state of affairs which is in part constituted by the fact that all observed Fs are Gs. 'All Fs are Gs' can even be rewritten as 'All observed Fs are Gs and all unobserved Fs are Gs'. As a result trying to explain why all observed Fs are Gs by postulating that all Fs are Gs is a case of trying to explain something by appealing to a state of affairs part of which is the thing to be explained.



of the Mosaic itself: the laws are what they are in virtue of the Mosaic rather than vice versa.<sup>52</sup>

Humeans have taken the circularity objection against Humean scientific explanation quite seriously.<sup>53</sup> If Humean laws of nature cannot do the explanatory work expected of laws of nature, then Humeans laws are not laws.

### *2.2.2 The Circularity Objection to Humean Metaphysical Explanation*

The circularity objection to Humean metaphysical explanation exploits the same line of reasoning. As a very rough first pass, the objection runs as follows. Generalizations are explained by their instances. Since Humean laws of metaphysics are generalizations of the hierarchical Humean mosaic, Humean laws of metaphysics are explained by their instances. Like the laws of nature, the laws of metaphysics explain their instances. By transitivity, instances of the laws of metaphysics explain themselves. But these instances can't explain themselves, so Humean metaphysical explanation ought to be rejected. Obviously, the circularity objection as just stated is imprecise and much too quick; its only purpose is to give an impression of the general structure of the objection. Let us proceed to a more careful articulation of the objection.<sup>54</sup>

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<sup>52</sup> Maudlin (2007: 172). Emphasis in original. See also Lange (2013).

<sup>53</sup> Recent replies to the circularity objection against Humean scientific explanation include Loewer (2012), Hicks and van Elswyck (2015), and Miller (forthcoming).

<sup>54</sup> To the best of my knowledge, Wilsch (forthcomingb: §2) is the only other philosopher to raise the circularity objection against Humean metaphysical explanation:

Each element of the mosaic is an instance of some generalization in the best system. Since instances of general truths partly explain the generalities that they are instances of, every element of the mosaic partly explains the laws. But the laws in turn feature in the explanation of the elements in the mosaic. Explanation therefore runs in a circle.

Wilsch's articulation and engagement with the objection is very brief, comprising a single paragraph, and he regards the objection as devastating for any regularity theory of laws of metaphysics. In any case, Wilsch and I arrived at the objection independently.

The new circularity objection gets rolling from the commitment to Humean Supervenience and the best system account of laws. On the best system account of laws of metaphysics (or any other Humean regularity account of laws of metaphysics), the laws of metaphysics are generalizations of the hierarchical Humean mosaic. In general, generalizations are collectively grounded in their instances, and each instance of a generalization partially grounds the generalization of which it is an instance. Because Humean laws of metaphysics are generalizations, it follows that:

*Instances Ground:*

Humean laws of metaphysics are partially grounded in their instances.

Take, for example, the law of metaphysics that all non-empty sets are grounded in their members. This generalization is partially grounded in each of its instances, among which is the grounding relation between Obama and {Obama}. The grounding relation between Obama and {Obama} partially grounds the generalization that all non-empty sets are grounded in their members.

Now recall that for Humeans about metaphysical explanation, metaphysical explanation is grounding explanation. That is, metaphysical explanations hold in virtue of grounding relations. If Obama grounds {Obama}, then the fact that Obama exists metaphysically explains the fact that {Obama} exists. This suggests the following link between grounding and metaphysical explanation concerning Humean laws of metaphysics:

*Grounding Explanation:*

If their instances partially ground the laws of metaphysics, then facts about their instances partially metaphysically explain facts about the laws of metaphysics.

From both *Instances Ground* and *Grounding Explanation*, we can infer that facts about the laws of metaphysics are partially metaphysically explained by facts about their instances. In the

case of Obama and his singleton, the fact that Obama grounds {Obama} partially metaphysically explains the fact that all non-empty sets are grounded in their members. According to Humeans, then, the laws of metaphysics are explained by their instances. This is the first semicircle of the circularity objection.

The second semicircle of the circularity objection to Humean metaphysical explanation concerns the explanatory role of laws. In the context of scientific explanation, both Humeans and non-Humeans agree that laws of nature explain their instances. They have, as Bird (2007) puts it, an explanatory capacity. That laws of nature explain their instances is one of our central beliefs about laws, supported by scientific practice and philosophical reflection. The explanatory role of laws is part of a shared notion of lawhood.<sup>55</sup>

Given the close parallels between scientific explanation and metaphysical explanation, we should expect the laws of metaphysics to explain their instances as well. If the laws of nature play an important explanatory role in scientific explanation, it seems that the law of metaphysics should play a similar explanatory role in metaphysical explanation. To deny the explanatory role of laws of metaphysics but not laws of nature would seem to be arbitrary. Moreover, the explanatory capacity of laws is part of the nature of lawhood. That laws explain their instances isn't unique to laws of nature; this explanatory capacity is part of what it is to be law of any sort—not just a law of nature. As a result, the nature of lawhood and the parallels between scientific and metaphysical explanation suggest:

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<sup>55</sup> Loewer (1996; 2012) staunchly defends the explanatory role of Humean laws of nature.

*Laws Explain:*

Facts about the laws of metaphysics partially metaphysically explain facts about their instances.

*Laws Explain* should appeal to Humeans and non-Humeans alike. In this connection, Wilsch (forthcominga; forthcomingb) defends a deductive-nomological account of Humean metaphysical explanation on which the laws of metaphysics “underlie” metaphysical explanations of the hierarchical Humean mosaic.<sup>56</sup> To return Obama and his singleton, the fact that all non-empty sets are grounded in their members partially metaphysically explains the fact that Obama grounds {Obama}. Obama grounds {Obama} in part because it is a law of metaphysics that all non-empty sets are grounded in their members. Like the laws of nature, then, the laws of metaphysics explain their instances.

The transitivity of metaphysical explanation completes circle. Explanation is widely thought to be transitive, and metaphysical explanation is no exception:

*Transitivity:*

If the Xs metaphysically explain the Ys and the Ys metaphysically explain the Zs, then the Xs metaphysically explain the Zs.

Facts about their instances partially metaphysically explain facts about the laws of metaphysics (*Instances Ground* and *Grounding Explanation*), and facts about the laws of metaphysics partially metaphysically explain facts about their instances (*Laws Explain*). *Transitivity* thus yields that facts about the instances of laws of metaphysics explain themselves. Here the circle becomes vicious because explanation is irreflexive. No fact can metaphysically explain itself; the fact that Obama grounds {Obama} cannot metaphysically

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<sup>56</sup> Wilsch (forthcominga: §3). Wilsch neglects to elaborate on what it means for the laws of metaphysics to underlie metaphysical explanation. I confess that his meaning remains mysterious to me. Schaffer (2015: §3.3) intimates an explanatory role for laws of metaphysics when he claims that grounding is “derivable from the laws of metaphysics.”

explain itself. On pain of contradiction, therefore, Humean metaphysical explanation should be rejected.

The circularity objection to Humean metaphysical explanation is valid, and Humeans will want to resist the conclusion. To avoid instances of the laws of metaphysics explaining themselves, Humeans must object to *Instances Ground*, *Grounding Explanation*, *Laws Explain*, or *Transitivity*. I will consider objections to each of these in reverse order.

### 2.2.3 Objections to Transitivity

Pinning the blame on *Transitivity* would come at little surprise. For the purposes of the circularity objection, what counts is the transitivity of *partial* metaphysical explanation. At issue is whether instances of the laws of metaphysics partially metaphysically explain themselves. Those who wish to deny *Transitivity* might look to alleged counterexamples to the transitivity of partial grounding, due to Schaffer (2012). If we take *Grounding Explanation* for granted as Schaffer does, then the cases easily double as putative counterexamples to the transitivity of partial metaphysical explanation.

In Schaffer's most compelling counterexample, we are asked to imagine a slightly imperfect sphere, with a dent. We have no name for this maximally determinate shape in English, so Schaffer calls it "shape S." Now, the following explanatory claim seems true:

1. The fact that the thing has a dent partially metaphysically explains the fact that the thing has shape S.

Claim 1 is plausible, explains Schaffer, "since the presence of the dent helps make it the case that the thing has maximally determinate shape S."<sup>57</sup> Shape S, Schaffer continues, is a

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<sup>57</sup> Schaffer (2012: 126).

determinate shape that falls under the determinable shape that he dubs “more-or-less spherical,” which includes a multitude of maximally determinate shapes that are imperfectly spherical. So the following explanatory claim also seems true:

2. The fact that the thing has shape S partially metaphysically explains the fact that the thing is more-or-less spherical.

Claim 2 is plausible because it is “an instance of the generally plausible claim that something’s having a determinate property [metaphysically explains] its having the relevant determinable.”<sup>58</sup> Given the transitivity of partial metaphysical explanation, we get:

3. The fact that the thing has a dent partially metaphysically explains the fact that the thing is more-or-less spherical.

But 3 is false, insists Schaffer: “the presence of the dent makes no difference to the more-or-less sphericity of the thing. The thing would be more-or-less spherical either way,”<sup>59</sup> with or without the dent. If anything, he maintains, the presence of the dent seems to threaten the more-or-less sphericity of the thing. Two true premises and a false conclusion, thus, makes the dented sphere a case of transitivity failure.

Schaffer himself promotes a contrastive solution to the alleged counterexamples. On a contrastive treatment of metaphysical explanation, metaphysical explanation is a quaternary relation between contrasts or differences. The fact that X rather than X\* metaphysically explains the fact that Y rather than Y\*, where X and Y are obtaining facts and X\* and Y\* are incompatible non-obtaining alternatives to these facts. This results in a contrastive treatment of transitivity: If X rather than X\* metaphysically explains Y rather than Y\* and Y rather than Y\* metaphysically explains Z rather than Z\*, then X rather than X\* metaphysically

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<sup>58</sup> Schaffer (2012: 126-127).

<sup>59</sup> Schaffer (2012: 127).

explains Z rather than Z\*. Without getting bogged down in the details, Schaffer argues that putative counterexamples fail to satisfy this schema; in every case the second contrast and the third contrast fail to match. So even Schaffer affirms the transitivity of partial metaphysical explanation when understood contrastively.<sup>60</sup>

My own solution to Schaffer's counterexamples, which I will only briefly relate here, relies on the distinction between rigid and generic metaphysical explanations.<sup>61</sup> Recall that X rigidly metaphysically explains Y just in case (i) X metaphysically explains Y, and (ii) necessarily, any maximal full metaphysical explanation chain of Y includes X. Cases of generic metaphysical explanation satisfy condition (i) but not (ii). Distinguishing between rigid and generic metaphysical explanation reveals that the dented sphere case (as well as the others) equivocates between rigid and generic metaphysical explanation: the first premise is an instance of *rigid*-partial metaphysical explanation, while the second premise is an instance of *generic*-partial metaphysical explanation. Claim 1: The fact that the thing has a dent rigidly partially metaphysically explains the fact that the thing has shape S. That is, the fact that the thing has a dent partially metaphysically explains the fact that it has shape S, and necessarily, any maximal full metaphysical explanation chain of the fact that the thing has shape S includes the fact that it has a dent. Claim 2, however, is generic-partial: The fact that the thing has shape S partially metaphysically explains the fact that it is more-or-less spherical, and it is not the case that, necessarily, any maximal full metaphysical explanation chain of the fact that the thing is more-or-less spherical includes the fact that it has shape S. For example,

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<sup>60</sup> For the other alleged counterexamples and the details of Schaffer's contrastive solution, see his (2012: 129-138).

<sup>61</sup> See my (manuscript) for the complete rigid/generic solution.

it is possible that a maximal full metaphysical explanation chain of the fact that the thing is more-or-less spherical instead include the fact that the thing has the maximally determinate shape R (imperfectly spherical with no dents) or the fact that the thing has the maximally determinate shape T (imperfectly spherical with two dents).

Because the premises are mixed—one rigid and the other generic—the conclusion must be read as generic, and the conclusion proves true when so read. In the dented sphere case, the fact that the thing has a dent does, in fact, generically partially metaphysically explain the fact the thing is more-or-less spherical. In other words, the fact that the thing has a dent partially metaphysically explains the fact that the thing is more-or-less spherical, and it is not the case that, necessarily, any maximal full metaphysical explanation chain of the fact that the thing is more-or-less spherical includes the fact that the thing has a dent. Admittedly, the fact that the thing has a dent could be replaced by the fact that the thing is imperfectly spherical and has no dents whatsoever in a maximal full metaphysical explanation chain of the fact that the thing is more-or-less spherical; but this is entirely consistent with the generic-partial metaphysical explanation claim, which allows for the possibility of a maximal full metaphysical explanation chain of the grounded fact that does not include its actual explanans.

Regardless of which solution to Schaffer's counterexamples prevails, the availability of these solutions furnishes multiple methods for preserving the transitivity of partial metaphysical explanation.<sup>62</sup> The prospects of denying *Transitivity* appear bleak, indeed.

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<sup>62</sup> Raven (2013) and Litland (2013) offer alternative solutions to Schaffer's counterexamples.



Humeans that harbor hopes of avoiding the circularity objection to Humean metaphysical explanation best look elsewhere for a way out.

#### 2.2.4 *Objections to Laws Explain and Grounding Explanation*

A more appealing way out for Humeans could be to reject *Laws Explain*, according to which facts about the laws of metaphysics partially metaphysically explain facts about their instances. There are two basic strategies for rejecting *Laws Explain*. The first and more drastic strategy would to deny that the laws of metaphysics play any explanatory role whatsoever. Second, Humeans could deny that the laws of metaphysics *metaphysically* explain their instances while still maintaining that they explain their instances in some other sense. It is my contention that both strategies, in different ways, deprive the laws of metaphysics of a satisfactory explanatory role.

Humeans about metaphysical explanation might be tempted to deny the explanatory role of laws of metaphysics altogether. The laws of metaphysics do not explain their instances, because facts about the law of metaphysics do no explanatory work. This “no work for laws” view has been championed by Bennett (2011b) and deRosset (2013). On their view, the only facts that do explanatory work are facts about the grounds. No additional facts, such as facts about the laws of metaphysics, are needed to metaphysically explain facts about the grounded entity or to explain facts about what grounds what. Consider, for example, a determinate/determinable case: The sweater’s being navy fully grounds its being blue. According to Bennett and deRosset, if the sweater’s being navy fully grounds its being blue, then the fact that the sweater is navy not only fully metaphysically explains the fact that it is blue. It also fully metaphysically explains the fact that the sweater’s

being navy fully grounds its being blue. One might have thought that some law of metaphysics—namely, all determinable properties are grounded in determinate properties—partially metaphysically explains the fact that the sweater’s being navy fully grounds its being blue. On the “no work for laws” view, however, this law of metaphysics explains nothing. The fact that the sweater is navy does all the explanatory work. Sure, when communicating the full metaphysical explanation to others, deRosset admits that we may provide additional information to render the explanation intelligible to our audience (including information about the laws of metaphysics), but this additional information is not part of the full metaphysical explanation. It is merely helpful background information.<sup>63</sup> Facts about the grounds do all of the explanatory work, leaving the laws of metaphysics explanatorily impotent.

There are several problems with the “no work for laws” view. First, the explanatory capacity of laws is part of the nature of lawhood. Humeans and non-Humeans alike ordinarily believe that the explanatory role of laws is central to what it is to be a law. A law that fails to explain its instances is not a law. Humeans have been reluctant to give up this conviction in the past, and their hearts will not be so easily changed. Second, as argued earlier, the parallels between scientific explanation and metaphysical explanation support the explanatory role of laws of metaphysics. Given that the laws of nature explain their instances, we should expect the laws of metaphysics to explain their instances as well. If the laws of nature do explanatory work and the laws of metaphysics do not, there must be some principled reason for this difference, and it’s hard to see what this reason could be. Without

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<sup>63</sup> See deRosset (2013: 21-25).

a principled reason for this difference between laws of nature and laws of metaphysics, denying the explanatory role of laws of metaphysics is utterly arbitrary.

Third and finally, intelligibility and explanation are not so easily disentangled, *pace* deRosset. Something is made more intelligible when it is made more understandable, and understanding is intimately tied to explanation. Indeed, the view that understanding just is knowledge of explanations enjoys wide support.<sup>64</sup> Information about the laws of metaphysics makes their instances more intelligible, as deRosset admits, and so more understandable. The laws of metaphysics help us understand their instances. So if understanding just is knowledge of explanations, it seems that the laws of metaphysics should be included in an explanation of their instances. The fact that the laws of metaphysics make their instances more intelligible indicates that the laws of metaphysics help explain their instances.

The second basic strategy for rejecting *Laws Explain* asserts that the laws of metaphysics explain their instances but not metaphysically. Although facts about their instances partially metaphysically explain facts about the laws of metaphysics, facts about the laws of metaphysics partially explain facts about their instances, some Humeans might claim, in some other sense of ‘explain’. Because two different forms of explanation are involved, instances of the laws of metaphysics avoid metaphysically explaining themselves. Loewer (2012: 130-131) employs this strategy in a recent reply to the old circularity objection to Humean scientific explanation. The circularity objection to Humean scientific explanation,

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<sup>64</sup> Support for the view that understanding is knowledge of explanations can be found in Achinstein (1983), Salmon (1984: 19-20), Kitcher (2002), Woodward (2003), Greco (2010: 8-9), and Grimm (2006; 2014), among others. See Grimm (2006; 2014) for robust defenses of the view.

Loewer argues, confuses scientific explanation and metaphysical explanation. Since the laws of nature are partially grounded in their instances, facts about their instances partially metaphysically explain facts about the laws of nature. Yet facts about the laws of nature do not metaphysically explain facts about their instances. Rather, they *scientifically* explain them.<sup>65</sup> Whatever the merits of Loewer's reply with respect to the old circularity objection, Humeans might attempt to take a page out of Loewer's playbook, contending that the new circularity objection to Humean metaphysical explanation likewise confuses two different forms of explanation.

However, it's not at all clear what this other, non-metaphysical form of explanation could be. Following Loewer, Humeans might allege that it is *scientific* explanation: facts about the laws of metaphysics scientifically explain facts about their instances. But this seems untoward. Humeans about metaphysical explanation, I earlier noted, operate with a dependence theory of explanation on which explanations hold in virtue of dependence relations. Scientific explanations, on this theory, hold in virtue of causal dependence relations. If facts about the laws of metaphysics scientifically explain facts about their instances, it would follow that the laws of metaphysics cause their instances. This can't be right. Neither the laws of metaphysics nor their instances are events, making them unsuitable to stand in a causal relation. Likewise, the dependence relation between the laws of metaphysics and their instances is synchronic, and causation is standardly taken to be diachronic.

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<sup>65</sup> Lange (2013) finds fault with Loewer's reply. Hicks and van Elswyck (2015) and Miller (forthcoming) come to Loewer's aid.

Perhaps then the other form of explanation is *logical*. Facts about the laws of metaphysics logically explain facts about their instances. Again, this won't do. The laws of metaphysics cannot logically entail their instances. Instances of the laws of metaphysics are not propositions; they are patterns in the hierarchical Humean mosaic. Patterns aren't the right sort of thing to be logically entailed. Besides, explanations hold in virtue of asymmetric dependence relations on the dependence theory, and logical entailment is not asymmetric.

With candidates running out, Humeans might feel compelled to ditch the dependence theory of explanation in favor of an unificationist theory.<sup>66</sup> This seems to be Schaffer's suggestion when he describes the laws of metaphysics as "formative principles" that "unify the patterns."<sup>67</sup> On an unificationist theory, the explanatory power of the laws of metaphysics lies in their ability to unify particular features of the hierarchical Humean mosaic. Modifying Philip Kitcher's summary of the theory, unificationist Humeans will say that "[metaphysics] advances our understanding of [reality] by showing us how to derive descriptions of many phenomena, using the same pattern of derivation again and again, and in demonstrating this, it teaches us how to reduce the number of facts we have to accept as ultimate."<sup>68</sup> In this way, Humeans could argue that the laws of metaphysics explain their instances in an unificationist sense of 'explain'.

Two main difficulties face this unificationist reply. The first, more general, difficulty for unificationist Humeans is that several well-known problems beset the unificationist theory of explanation. For instance, the notion of unification itself is far from unified,

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<sup>66</sup> The most influential unificationist theory of scientific explanation belongs to Kitcher (1981; 1989).

<sup>67</sup> Schaffer (2015: §1.4). Loewer (1996: 189) similarly maintains that laws of nature explain by unifying.

<sup>68</sup> Kitcher (1989: 423).

covering a broad range of achievements. The theory struggles to discriminate between those unifications that have to do with explanation and those that don't.<sup>69</sup> The second difficulty is that this reply saddles Humeans about metaphysical explanation with two fundamentally different theories of explanation. On the one hand, Humeans want a dependence theory of metaphysical explanation on which metaphysical explanations hold in virtue of grounding relations. They need *Grounding Explanation* in order to maintain that facts about the laws of metaphysics (and the laws of nature) are metaphysically explained by facts about their instances. Denying *Grounding Explanation* is tantamount to denying that the laws of metaphysics are explained by particular features of the hierarchical Humean mosaic. On the other hand, Humeans want an unificationist theory to preserve the explanatory role of laws of metaphysics; they want the laws of metaphysics to explain their instances by unifying them. But just as the causal theory and unificationist theory are competing theories of scientific explanation, the grounding theory and unificationist theory are competing theories of metaphysical explanation. Humeans cannot have both. They must choose one or the other.<sup>70</sup> If Humeans choose the unificationist theory, then they must deny *Grounding Explanation* and that laws are metaphysically explained by their instances. If they choose the dependence theory, then they must deny *Laws Explain* and concede that Humean laws of metaphysics fail to explain their instances. Neither alternative is a happy one.

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<sup>69</sup> See Woodward (2014: §5) for an overview of problems afflicting the unificationist theory of explanation.

<sup>70</sup> The same goes for Humeans who opt for a pragmatic theory of metaphysical explanation in the spirit of Bas van Fraassen (1980). The grounding theory and the pragmatic theory are two fundamentally different theories of metaphysical explanation.

### 2.2.5 Objections to *Instances Ground*

Despairing, Humeans about metaphysical explanation could reject *Instances Ground* as a last resort. *Instances Ground*, which states that Humean laws of metaphysics are partially grounded in their instances, is a straightforward application of Humean Supervenience. Thus, by denying *Instances Ground*, Humeans severely compromise their commitment to Humean Supervenience. They are begrudgingly allowing that some nomic entities, namely, the laws of metaphysics, are not ultimately grounded in the Humean mosaic, opening themselves up to accusations of inconsistency or arbitrariness. The only Humean who openly denies *Instances Ground* is Tobias Wilsch (forthcomingb). Faced with the threat of explanatory circularity, Wilsch concedes that the laws of metaphysics are ungrounded and so fundamental: “the laws are the independent dynamic postulates that God would have to decree in addition to the instantiations of fundamental properties and relations.”<sup>71</sup> Fundamental laws of metaphysics are a heavy cost indeed for Humeans, but Wilsch sees no other way out of the circularity objection.

Humeans about metaphysical explanation could try to save face by insisting that Hume’s Dictum—not Humean Supervenience—is at the heart of Humeanism. Compromising their commitment to Humean Supervenience isn’t so bad as long as Hume’s Dictum escapes unscathed. Fundamental laws of metaphysics, they might argue, are perfectly consistent with Hume’s Dictum. Hume’s Dictum solely precludes fundamental necessary connections between *distinct* entities. Though the laws of metaphysics involve fundamental

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<sup>71</sup> Wilsch (forthcomingb: §2).

necessary connections, they connect *non*-distinct entities. Humeans could appeal here to Schaffer's ground-theoretic interpretation of the distinctness requirement: two entities are distinct just in case they are neither numerically identical nor connected by grounding.<sup>72</sup> The laws of metaphysics connect entities that are connected by grounding, so the laws of metaphysics connect non-distinct entities.

In the context of the circularity objection to Humean metaphysical explanation, however, this move simply begs the question. The question at issue is whether Humean laws of metaphysics, generalizations of the form "all Fs are grounded in Gs," connect distinct entities. To answer with a ground-theoretic interpretation of the distinctness requirement is to presuppose that Humean laws of metaphysics connect non-distinct entities. It strikes one as an obvious cheat. Without a satisfactory account of the distinctness requirement or an independent argument for the ground-theoretic interpretation, the claim that fundamental laws of metaphysics do not violate Hume's Dictum is wholly unmotivated. Moreover, it seems disingenuous of Humeans to insist that Humean Supervenience is somehow ancillary to Hume's Dictum. Hume's Dictum and Humean Supervenience are two sides of the same metaphysical coin. Compromising Humean Supervenience by postulating fundamental laws of metaphysics strikes at the very heart of Humeanism. The cost of this compromise cannot be dismissed in such a cavalier manner.

### *2.2.6 Conclusion*

Humean metaphysical explanation, as we have seen, is grounding explanation. Humeans about metaphysical explanation begin with a hierarchical view of reality, according

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<sup>72</sup> Refer to §2.1.2 above.



to which less fundamental levels of reality are grounded in the fundamental level, the Humean mosaic. Grounding, the preferred Humean notion of metaphysical dependence, is generally thought to be a necessary relation of generation between non-distinct entities, and Humeans operate with a best system account of the laws of metaphysics. Like Humean scientific explanation, Humean metaphysical explanation suffers from an acute circularity objection. To avoid instances of the laws of metaphysics metaphysically explaining themselves, Humeans encounter pressure either to deny that the laws of metaphysics metaphysically explain their instances or to compromise their commitment to Humean Supervenience by postulating fundamental laws of metaphysics.

Both alternatives carry significant costs. Given the nature of lawhood and the parallels with scientific explanation, denying the explanatory role of laws of metaphysics is counterintuitive and deeply problematic. Postulating fundamental laws of metaphysics is a glaring exception to Humean Supervenience, casting doubt upon the coherence of the doctrine. I submit then that Humean metaphysical explanation is a sinking ship that should be abandoned. Patching holes in Humean metaphysical explanation won't suffice. We need a radically different account of metaphysical explanation—a non-Humean account.

# Chapter 3:

## *Essential Explanation*

Non-Humean accounts of metaphysical explanation fundamentally part ways with Humean ones on the nature of metaphysical dependence and the nature of laws of metaphysics. According to non-Humeans, metaphysical explanations hold in virtue of metaphysical dependence relations that require fundamental necessary connections between distinct entities, and the laws of metaphysics in some sense govern or constrain the world. Non-Humean metaphysical explanation thus dispenses with Hume's Dictum and the summarizing conception of laws of metaphysics.

The non-Humean account of metaphysical explanation that I develop and defend in this chapter is neo-Aristotelian in its reliance on the notions of essence and essential dependence.<sup>73</sup> Metaphysical explanations, I contend, hold in virtue of essential dependence relations, where essential dependence is construed in terms of real definition. Essential dependence relations between particulars are themselves instances of essential dependence

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<sup>73</sup> The revival of neo-Aristotelian metaphysics in the late twentieth century, led by Kit Fine and E.J. Lowe, has produced a wealth of promising work on causation, laws of nature, and modality. See the recent volume by Tahko (2012) for a sample.

relations between universals, which I dub “laws of essence.” Laws of essence govern or constrain the world on my proposed account in the sense that particulars instantiate laws of essence. In short, metaphysical explanation is essential explanation.<sup>74</sup>

I begin with explications of essence, real definition, and the related notion of essential dependence. This is followed by my treatment of the laws of metaphysics as laws of essence and a discussion of the explanatory role of the laws of essence. Along the way I pause twice to illustrate how my essentialist account applies to a range of examples. I conclude by highlighting some virtues of my proposed account of metaphysical explanation and replying to several potential objections.

Before we get started, two disclaimers are in order. The first is that I will presuppose a four-category ontology very much like the one developed by E.J. Lowe (2006; 2009a). Everything that exists, I assume, falls under one of four equally fundamental categories of being: two categories of universal, kind and attribute, and two categories of particular, object and mode. This four-category ontology will be presented in greater detail later on, but it will not be defended here. My focus is metaphysical explanation and others have systematically defended the ontology elsewhere.<sup>75</sup> That said, my essentialist account of metaphysical explanation may be adapted to other ontologies of fewer than four categories. At minimum my account requires one category of universal and one category of particular standing in the instantiation relationship. One category, two categories of particular, or two categories of

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<sup>74</sup> The correlation between essence and metaphysical explanation has not gone unnoticed in the literature. Rosen (2010), Fine (2012), Audi (2012a; 2012b), Correia (2013), and Dasgupta (manuscript) all recognize some connection between essence and metaphysical explanation. One of the virtues of my proposal, which I discuss below in §3.7, is its ability to account for this correlation.

<sup>75</sup> Most notably, Lowe (2006; 2009a). Lowe (1989) defends a three-category ontology that omits the category of kind.

universal will not suffice, however, since instantiation must hold between a universal and its particular instances.<sup>76</sup>

The second disclaimer is that this chapter does not attempt a *conclusive* defense of my essentialist account of metaphysical explanation. A complete defense would require more space than this chapter allows, and it would include, among other things, a defense of a four-category ontology, a more thorough treatment of the varieties of essential dependence, and defenses against alternative accounts of metaphysical explanation.<sup>77</sup> For these reasons, my conclusion will be modest: my essentialist account of metaphysical explanation is an attractive proposal that withstands scrutiny.

### *3.1 Essence and Real Definition*

The concept of essence has a long and distinguished philosophical lineage, tracing back to at least Plato and Aristotle. The questions guiding so many of Plato's Socratic dialogues (e.g., "What is justice?" and "What is piety?") can be interpreted as attempts to discover the essences of ancient Greek virtues, and Aristotle, in a passage infamous for its obscurity, introduces the concept in *Metaphysics Zeta*.<sup>78</sup> In more recent centuries, accounts of essence generally divide into modal accounts, which elucidate essence in terms of *de re* modality, and definitional accounts, which elucidate essence in terms of real definition.

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<sup>76</sup> Even so, admitting less than four categories makes it difficult to countenance some ostensible cases of metaphysical explanation. For instance, Audi's (2012a: 106, 108) preoccupation with properties—at the expense of kinds—prevents him countenancing constitution and composition as cases of metaphysical explanation.

<sup>77</sup> For example, a conclusive defense would demonstrate how truthmaking is a subspecies of essential dependence and contain a defense against Wilsch's (forthcominga) deductive nomological account of metaphysical explanation.

<sup>78</sup> Aristotle (1984: *Metaphysics Z*, 4).

Modal accounts of essence can be formulated in a multitude of ways. At their core all modal accounts state that an entity has a property essentially if and only if it is necessary that the entity has the property. The essence of an entity, then, is just the sum or collection of its essential properties. On a modal existential account of essence, for instance, essential properties are conditional upon an entity's existence. An entity has a property essentially if and only if it is necessary that the entity has the property if the entity exists, and the essence of an entity is the sum of its essential properties so understood.

Following Fine (1994), Oderberg (2007), and Lowe (2008; 2011), I maintain that modal accounts of essence are deeply flawed. To illustrate, take the counterexample of Socrates and his singleton from Fine (1994). According to standard set theory, it is necessary that {Socrates} has Socrates as a member if {Socrates} exists, so {Socrates} essentially has Socrates as a member on the modal existential account above. Having Socrates as a member is part of the essence of {Socrates}. This much seems fine. However, it is also necessary that Socrates is a member of {Socrates} if Socrates exists, from which it follows that Socrates essentially is a member of {Socrates}. Being a member of {Socrates}, then, is part of the essence of Socrates. But, intuitively, this is false. Being a member of {Socrates} does not belong to Socrates' essence. "There is nothing in the nature of a person," Fine rightly observes, "which demands that he belongs to this or that set or which demands, given that the person exists, that there even be any sets."<sup>79</sup> Modal accounts of essence are insufficiently fine-grained, admitting far too many properties as essential. Moreover, with Lowe (2008; 2011) I believe that modal accounts lead to the inappropriate reification of essence. On

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<sup>79</sup> Fine (1994: 5).

modal accounts of essence, an entity's essence is a sum or collection of properties; an essence is a further entity that is numerically distinct from the entity itself. But all entities have essences, and so an essence, as a further entity, must have an essence of its own, casting us into an infinite regress. To avoid the regress we should refrain from reifying essences in the first place. Essences are not some further entity of a special sort.

On the definitional account of essence I favor, essence is taken as primitive. That is to say, essence cannot be analyzed in modal or any other terms. The essence of an entity is simply *what the entity is*, or *what it is to be the entity*. As John Locke, channeling Aristotle, puts it, the essence of a thing is “the very being of any thing, whereby it is, what it is.”<sup>80</sup> Again, the essence of an entity is not a further entity mysteriously related to the entity in question. Entities *have* essences. Essences are not themselves entities.<sup>81</sup>

Although primitive, essence may be elucidated using the notion of real definition. Rather than providing an analysis of essence, real definition merely provides a helpful gloss on essence. A *real definition* is a proposition representing the essence of an entity.<sup>82</sup> In a real definition, the definiens, that which does the defining, will characterize the essence of the definiendum, that which is defined. The definiens will characterize what the definiendum is, or what it is to be the definiendum. Real definitions should be distinguished from nominal definitions. In a nominal definition, the definiendum and the definiens are words (i.e., linguistic entities). Nominal definitions are statements of the sort found in a dictionary. A

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<sup>80</sup> Locke (1975: III, III, 15).

<sup>81</sup> Here I follow Lowe (2008; 2011).

<sup>82</sup> To be clear, essences are not real definitions. If they were, then essences would be propositions, and if propositions, we have a reification of essence and an infinite regress like the one threatening modal accounts of essence. Fine (1994; 1994) comes dangerously close to reifying essences as propositions.

nominal definition of the word ‘supercilious’ would be “behaving or looking as though one thinks one is superior to others.” In contrast, the definiendum and the definiens in a real definition represent (non-linguistic) entities. They represent entities such as sets, snails, and sofas.<sup>83</sup>

Real definitions typically take the form <To be x is to be y>, where ‘x’ is the definiendum and ‘y’ is the definiens. For example, consider the Aristotelian real definition of a human being: <To be a human being is to be a rational animal>.<sup>84</sup> The definiendum represents an entity (a human being) and the definiens likewise represents an entity (a rational animal). Notice that the definiens specifies both a genus and a differentia or differentiating feature. In this case the definiens specifies the genus, animal, and the differentia, rationality. When combined, the genus and differentia characterize the essence of the definiendum. What it is to be a human being is just to be a rational animal; that’s the essence of humanity, on the Aristotelian view.

### *3.2 Essential Dependence and its Varieties*

Like accounts of essence, contemporary accounts of essential dependence are broadly modal or definitional. For reasons articulated in Fine (1995), which I will not rehearse in detail, I believe modal accounts of essential dependence are insufficiently fine-grained, resulting in spurious essential dependence. On a modal existential account of essential dependence, y essentially depends on x just in case it is necessary that x exists if y exists. Once again Socrates and his singleton stir up trouble. According to standard modal set

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<sup>83</sup> See Fine (1994; 1995), Oderberg (2011), and Koslicki (2012; 2013) for similar characterizations of real definition.

<sup>84</sup> Example adapted from Koslicki (2012: 197-198).

theory, it necessary that {Socrates} exists if Socrates exists. Given a modal existential account of essential dependence, it follows that Socrates essentially depending on {Socrates}. Yet this is mistaken. {Socrates} essentially depends on Socrates, but not vice versa. As with essence, essential dependence should not be understood modally.

Essential dependence is best understood in terms of real definition. Essential dependence holds when the essence of an entity involves another entity; one entity is part of what it is to be another entity. Or, in terms of real definition, essential dependence holds when one entity is a constituent of a real definition of another entity.<sup>85</sup> Essential dependence comes in several varieties. Because all varieties of essential dependence involve being a constituent of a real definition, I regard them as species of a single genus. All species of essential dependence have it in common that the essence of one entity involves another entity, yet they are differentiated in various ways. There are at least four basic species of essential dependence: rigid-full, rigid-partial, generic-full, and generic-partial. As we will see shortly, these four species of essential dependence correspond to the four species of metaphysical explanation in more than name alone. Each species of metaphysical explanation holds in virtue of a corresponding species of essential dependence. Rigid-full metaphysical explanations hold in virtue of rigid-full essential dependence, rigid-partial metaphysical explanations hold in virtue of rigid-partial essential dependence, and so on. Before illustrating this point, however, the four basic species of essential dependence must be introduced.

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<sup>85</sup> I use the indefinite article ‘a’ so as to leave open the possibility that an entity may have multiple equally accurate real definitions.



Where ‘y’ and ‘x’ represent entities of any ontological category, rigid species of essential dependence may be formulated as follows:

*Rigid-Partial Essential Dependence:*

y rigidly partially essentially depends on x =*df.* x is a constituent of a real definition of y.

*Rigid-Full Essential Dependence:*

y rigidly fully essentially depends on x =*df.* (i) x is a constituent of a real definition of y, and (ii) there is no other constituent of a real definition of y.

For generic species of essential dependence, one entity essentially depends on a type or sort of entity that satisfies predicate F, namely, *some F or other* (call these Fs):<sup>86</sup>

*Generic-Partial Essential Dependence:*

y generically partially essentially depends on x =*df.* (i) Fs are a constituent of a real definition of y, and (ii) x satisfies F.

*Generic-Full Essential Dependence:*

y generically fully essentially depends on x =*df.* (i) Fs are a constituent of a real definition of y, (ii) there is no other constituent of a real definition of y, and (iii) x satisfies F.

Two points about these formulations. First, full essential dependence strictly entails partial essential dependence but not vice versa. That is to say, rigid-full essential dependence strictly entails rigid-partial essential dependence but not vice versa, and generic-full essential dependence strictly entails generic-partial essential dependence but not vice versa. Second, in cases of rigid essential dependence, the dependent entity essentially depends on a *unique* entity. Not so in cases of generic essential dependence, since any number of entities can satisfy F. Generic essential dependence needn’t involve any particular entity that satisfies F.

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<sup>86</sup> Similar formulations of generic essential dependence may be found in Simons (1987: ch. 8.3), Correia (2008), Lowe (2010), and Koslicki (2013).

It should be noted that species of essential dependence can be formulated without reference to real definitions. Instead, one can employ Fine’s distinction between an entity’s “constitutive essence” (its essence, narrowly construed) and its “consequential essence” (its essence, widely construed). Fine explains:

A property belongs to the *constitutive* essence of an object if it is not had in virtue of being a logical consequence of some more basic essential properties; and a property might be said to belong to the *consequential* essence of an object if it is a logical consequence of properties that belong to the constitutive essence.<sup>87</sup>

On this alternative approach, formulations of essential dependence swap ‘real definition’ for ‘constitutive essence’. Fine (1994; 1995) tends to treat essences as propositions or collections of propositions. I have chosen to formulate essential dependence in terms of real definition, like Koslicki (2012; 2013), to “leave room for a less propositional conception of essences,”<sup>88</sup> and to resist the reification of essences.

Beyond these four species of essential dependence, there very well may be additional species or subspecies of essential dependence. Koslicki (2012) proposes two additional forms of essential dependence that she dubs “constituent dependence” and “feature dependence.”<sup>89</sup> Constituent dependence holds between sets and their members, molecules and their atomic constituents, states of affairs and their worldly constituents, and similar pairs of entities, where the dependent entities are in some way “built up from” or “constructed from” the dependees, according to Koslicki. We may define constituent dependence in this way:

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<sup>87</sup> Fine (1995: 276). Emphasis in original.

<sup>88</sup> Koslicki (2012: 196).

<sup>89</sup> Here I simply aim to show what subspecies of essential dependence might look like, not to defend Koslicki’s proposed subspecies.

*Constituent Dependence:*

y is constituent dependent on x =*df.* (i) x is a constituent of a real definition of y, and (ii) x is a constituent of y itself.

Constituent dependence may be either partial or full based on whether there is some further constituent of a real definition of the dependent entity. The other subspecies of essential dependence proposed by Koslicki is feature dependence. What differentiates feature dependence as a subspecies is that the dependent entity corresponds to a feature of the dependee:

*Feature Dependence:*

y is feature dependent on x =*df.* (i) x is a constituent of a real definition of y, and (ii) y corresponds to a feature of x.

Koslicki intentionally employs the vague expression ‘corresponds to’ so as to leave open exactly how the dependent entity relates to the dependee. Feature dependence, like constituent dependence, may be either partial or full based on whether there is some further constituent of a real definition of the dependent entity. For Koslicki, examples of feature dependence include tropes and their bearers, Aristotelian universals and the particulars they characterize, holes and their hosts, as well as boundaries and their hosts.

Yet not all essential dependence relations fit neatly under the subspecies of constituent and feature dependence. Consider truthmaking, for instance. One might think that the truth of a proposition essentially depends on its truthmaker.<sup>90</sup> However, the truthmaker of a proposition is not a constituent of the truth of the proposition, ruling out constituent dependence, nor does the truth of a proposition correspond to a feature of the proposition’s truthmaker, ruling out feature dependence. Similarly, take the

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<sup>90</sup> Lowe (2009b) contends that truthmaking is a form of essential dependence.

determinate/determinable relation. Determinable properties are not built up or constructed out of determinate properties, but neither do determinable properties correspond to features of determinate properties. For if determinable properties were to correspond to features of determinate properties, then determinable properties would *inhere in* determinate properties. Yet this seems to be a category mistake. Properties inhere in individuals—not other properties. Thus, truthmaking and the determinate/determinable relation do not fit the models of constituent and feature dependence, which suggests that further subspecies of essential dependence must be delineated.<sup>91</sup>

### *3.4 Essential Explanation Illustrated: Part I*

With definitional accounts of essence and essential dependence in place, we can finally begin to illustrate my essentialist account of metaphysical explanation. Recall that on my proposed account, metaphysical explanations hold in virtue of essential dependence relations. The explanans metaphysically explains the explanandum in virtue of a constituent of the explanandum essentially depending on a constituent of the explanans. More schematically, my essentialist account of metaphysical explanation states:

The Xs metaphysically explain the Ys in virtue of a constituent of the Ys essentially depending on a constituent of the Xs

where “the Xs” and “the Ys” are variably polyadic variables ranging over facts. To illustrate the account I will focus on three singular metaphysical explanations, i.e., metaphysical

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<sup>91</sup> Demonstrating how truthmaking and the determinate/determinable relation are forms of essential dependence goes beyond the scope of the present chapter, but a *conclusive* defense of my essentialist account of metaphysical explanation would require such demonstrations.

explanations holding between particular facts:<sup>92</sup> Obama and his singleton, a navy blue sweater, and Mona Lisa's smile and her mouth.

The fact that Obama exists metaphysically explains the fact that {Obama} exists.

Here we have a case of *rigid-full* metaphysical explanation.<sup>93</sup> That is to say:

- (i) The fact that Obama exists metaphysically explains the fact that {Obama} exists,
- (ii) necessarily, any maximal full metaphysical explanation chain of the fact that {Obama} exists includes the fact that Obama exists, and
- (iii) there is no other fact Z such that Z is not identical to the fact that Obama exists and Z metaphysically explains the fact that {Obama} exists.

Furthermore, {Obama} essentially depends on Obama. The essence of {Obama} involves Obama in such a way that Obama is a constituent of a real definition of {Obama}. To be {Obama} is to be a collection containing Obama as its sole member that satisfies the axioms of set theory. Obama is part of what is to be {Obama}. In particular, {Obama} *rigidly fully* essentially depends on Obama:

- (i) Obama is a constituent of a real definition of {Obama}, and
- (ii) there is no other constituent of a real definition of {Obama}.

Now, according to my essentialist account of metaphysical explanation, a rigid-full metaphysical explanation should correspond to a rigid-full essential dependence relation, and the case of Obama and his singleton bears this out. The fact that Obama exists rigidly metaphysically explains the fact that {Obama} exists, and this corresponds to {Obama} rigidly fully essentially depending on Obama. What's more, this singular metaphysical

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<sup>92</sup> In the same way that philosophers commonly distinguish between singular and general causal explanations (i.e., causal explanations holding between particular facts and causal explanations holding between generic facts), we can distinguish between singular and general metaphysical explanations. The fact that Obama exists metaphysically explains the fact that {Obama} exists is a singular metaphysical explanation, whereas the fact that non-empty sets exist is metaphysically explained by the fact that their members exist is a general metaphysical explanation.

<sup>93</sup> For definitions of rigid-full metaphysical explanation and other species of metaphysical explanation, please refer to §1.4.

explanation holds *in virtue of* the essential dependence relation between Obama and {Obama}. The fact that Obama exists rigidly fully metaphysically explains the fact that {Obama} exists *because* {Obama} rigidly fully essentially depends on Obama.

The same goes for other singular metaphysical explanations. The fact that the sweater is navy metaphysically explains the fact that it is blue. Like other determinate/determinable cases, this is a case of *generic-full* metaphysical explanation. The fact that the sweater is navy fully metaphysically explains the fact that it is blue, but it is not the case that necessarily, any maximal full metaphysical explanation chain of the fact that the sweater is blue includes the fact that it is navy. A maximal full explanation chain could instead include the fact that the sweater is cobalt or the fact that it is azure. Moreover, this generic-full metaphysical explanation holds in virtue of a constituent of the explanandum (the sweater's blueness) essentially depending on a constituent of the explanans (the sweater's navyness). Here too the species of metaphysical explanation corresponds to the species of essential dependence, since the sweater's blueness *generically fully* essentially depends on its navyness. For the sweater to be blue is for it to be some shade of blue or other, and navy is some shade of blue or other. The fact the sweater is blue generically fully metaphysically explains the fact that it is blue *because* the sweater's blueness generically fully essentially depends on its navyness.

Lastly, the fact that Mona Lisa has a mouth *rigidly partially* metaphysically explains the fact that she has a smile. In order to fully metaphysically explain the fact that Mona Lisa has a smile, some additional fact or facts (such as the fact the corners of her mouth are turned upward) must be included. The fact that she has a mouth is not enough. This rigid-partial metaphysical explanation holds in virtue of Mona Lisa's smile *rigidly partially* essentially

depending on her mouth. The essence of Mona Lisa's smile involves her mouth. Or, in terms of real definition, Mona Lisa's mouth is a constituent of a real definition of her smile (<To be Mona Lisa's smile is to be her mouth with the corners turned upward>). However, the corners' turned upwardness (pardon the inelegance) is also a constituent of a real definition, and so the essential dependence is partial.

To be sure, none of these examples, individually or collectively, establish in any way that metaphysical explanation is essential explanation. No number of examples could. The point has been only to illustrate how my essentialist account applies to a range of singular metaphysical explanations (rigid-full, generic-full, and generic-partial). These examples begin to show the promise of an essentialist account of metaphysical explanation as it handles cases of metaphysical explanation in all their diversity. Still, its full promise can only be appreciated when paired with an essentialist account of the laws of metaphysics, to which we now turn.

### *3.5 Laws of Essence and Their Explanatory Role*

On my proposed account of metaphysical explanation, the laws of metaphysics are laws of essence—essential dependence relations between universals. As flagged earlier, I assume a four-category ontology closely resembling Lowe (2006; 2009a) on which there are four equally fundamental categories of being. Categories of being are the most general and basic sort of entities that exist. Everything that exists falls under one of the four categories. The categories arise from a pair of transcategorical distinctions: the universal/particular distinction and the substantial/non-substantial distinction. The four categories are substantial universals or *kinds*, non-substantial universals or *attributes*, substantial particulars

or *objects*, and non-substantial particulars or *modes*. Before developing my essentialist account of the laws of metaphysics and their explanatory role, more needs to be said about these categories and the background ontology.

At the level of universals we have kinds and attributes. Universals are repeatable entities, entities that may be instantiated at many different times and places. *Kinds* are substantial universals such as set, snail, and sofa. The kind snail, for example, may be instantiated at different times and places: two instances in my garden this morning and another instance in your garden a fortnight ago. *Attributes* are non-substantial universals, *properties and relations* such as sliminess and eating. Like the kind snail, the property sliminess may be instantiated at different times and places: twice in my garden this morning and once in yours a fortnight ago. The relation eating in one instance might hold between a snail and cucumbers and in another between a snail and carrots.

At the level of particulars we have the categories of object and mode. Particulars are non-repeatable entities, that is, they cannot be instantiated at different times and places. They are instances of universals; to be a particular is to be an instance of a universal. *Objects* are substantial particulars, particular instances of kinds. Objects, sometimes called individuals or individual substances, are things like the two snails in my garden this morning. Modes (frequently referred to as tropes or property-instances and relation-instances) are non-substantial particulars, particular instances of attributes. So, there are two modes of sliminess and two modes of eating in my garden this morning: one inhering in this snail and one inhering in the other snail, one holding between this snail and this cucumber and one holding between the other snail and this carrot.



The four categories stand in certain necessary relationships to one another.<sup>94</sup> As already indicated, the two categories of universal stand in the *instantiation* relationship to the two categories of particular. Objects are instances of kinds, while modes are instances of attributes. In other words, to be an object is to be an instance of a kind, and to be a mode is to be an instance of an attribute. According to Lowe, non-substantial categories stand in the *characterization* relationship to substantial categories. Attributes characterize kinds, and modes characterize objects. Returning to our example, the property sliminess characterizes the kind snail, while this sliminess (a particular instance of the property sliminess) characterizes this snail (a particular instance of the kind snail).

Now, on my essentialist account of laws of metaphysics, the laws of metaphysics are just essential dependence relations between universals. The essences of some universals involve other universals. One universal can be part of another universal's essence, part of what it is to be the universal in question. Some kinds essentially depend on other kinds, and some attributes essentially depend on other attributes. Take the kind set. Members are part of what a set is, or what it is to be a set. In other words, the essence of the kind set involves the kind member of a collection. The following candidate real definition of the kind set bears this out: <To be a set is to be a collection of members that satisfies the axioms of set theory>.<sup>95</sup> This real definition of the kind set has another kind of entity as a constituent, namely, the kind member of a collection. Thus, the kind set essentially depends on the kind

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<sup>94</sup> Lowe (2006) refers to instantiation and characterization as relationships, as opposed to relations, to set them apart from relational universals. Instantiation and characterization, he stresses, are not relational universals. They do not fall under any of the four categories because they are not *entities*. Rather, Lowe thinks of instantiation and characterization as “internal relations,” in David Armstrong’s sense of the term. See his (2006: 44-49, 166-168) for details. I consider how this issue affects essential dependence in §3.8.

<sup>95</sup> Koslicki (2012: 202) defines the kind set in this manner, for instance.

member of a collection, or, more naturally, sets essentially depend on their members. Similarly, consider the property blueness and its candidate real definition: <'To be blue is to be some determinate property of blue or other>. The property navyness satisfies the condition of some determinate property of blue or other, so the property blueness (generically) essentially depends on the property navyness. In less stilted language, blue (generically) essentially depends on navy. In these ways, kinds can essentially depend on other kinds, and attributes can essentially depend on other attributes. Call these essential dependence relations between universals *laws of essence*.

On this picture, essential dependence relations between particulars are instances of essential dependence relations between universals. The essential dependence relation between Obama and {Obama} at the level of particulars is an instance of the essential dependence between sets and their members at the level of universals; likewise, the essential dependence relation between the sweater's navyness and its blueness at the level of particulars is an instance of the essential dependence between blue and navy at the level of universals. In short, particulars instantiate laws of essence. To say that the laws of essence *govern* or *constrain* the world, on my essentialist account, is just to say that essential dependence relations between particulars are instances of the laws of essence. That's all.

In general, the relationship of instantiation is a form of dependence. Particulars depend on the universals they instantiate. The relevant form of dependence is neither causal nor logical, since instantiation does not exclusively hold between events or propositions. Instantiation, I submit, is a form of partial essential dependence. Universals are constituents in real definitions of their instances. To be a particular is to be an instance of

some universal. Consider Sally the snail, for example. Being an instance of the kind snail is part of what it is to be Sally. Sally's essence involves more than being an instance of the kind snail, certainly, since being an instance of the kind snail isn't enough to distinguish Sally from other particular snails. Yet being an instance of the kind snail is still part of Sally's essence. A real definition of Sally would look something like <To be Sally is to be an instance of the kind snail such that...>, where the ellipsis is filled in with whatever else makes Sally the particular snail that she is. Whatever fills the ellipsis, the kind snail remains a constituent of a real definition of Sally. In this way, Sally partially essentially depends on the kind snail. If the foregoing is correct, then we can formulate instantiation as a subspecies of rigid-partial essential dependence:

*Instance Dependence:*

y is instance dependent on x =<sub>df.</sub> (i) x is a constituent of a real definition of y, and (ii) y is an instance of x.

Particulars, whether they are objects or modes, rigidly partially essentially depend on the universals of which they are instances.

We can now specify the explanatory role of the laws of metaphysics. If instantiation is *Instance Dependence*, it follows that instances of the laws of essence rigidly partially essentially depend on the laws of essence. In this respect instances of the laws of essence are like all other instances of universals. Recall that on my proposed account of metaphysical explanation, metaphysical explanation is essential explanation. That is, metaphysical explanations hold in virtue of essential dependence relations. Therefore, if instances of the laws of essence partially essentially depend on the laws of essence, it follows that facts about the laws of essence partially metaphysically explain facts about their instances. In particular,

the fact that one universal essentially depends on another partially metaphysically explains the fact that an instance of the former universal essentially depends on an instance of the latter universal. Where ‘u<sub>1</sub>’ and ‘u<sub>2</sub>’ represent distinct universals, ‘i<sub>1</sub>’ represents an instance of u<sub>1</sub>, and ‘i<sub>2</sub>’ represents an instance of u<sub>2</sub>, the proposal is that:

*Laws of Essence Explain:*

The fact that u<sub>1</sub> essentially depends on u<sub>2</sub> partially metaphysically explains the fact that i<sub>1</sub> essentially depends on i<sub>2</sub>

*Laws of Essence Explain* says that facts about essential dependence between particulars are partially metaphysically explained by facts about essential dependence between universals. In other words, facts about the laws of essence partially metaphysically explain facts about their instances. In sum, laws of essence partially metaphysically explain their instances.<sup>96</sup>

### *3.6 Essential Explanation Illustrated: Part II*

So far, my essentialist account of the laws of metaphysics and their explanatory role has been quite abstract. To put some flesh on the bones of the proposed account, let us pause and return to the illustrations of singular metaphysical explanation discussed earlier: Obama and his singleton, a navy blue sweater, and Mona Lisa’s smile and her mouth.

{Obama} rigidly fully essentially depends on Obama. On my proposal, essential dependence relations at the level of particulars are instances of essential dependence relations at the level of universals. So in this case, the essential dependence relation between Obama and {Obama} is an instance of an essential dependence relation between the kind sets and the kind member of a collection. {Obama} essentially depending on Obama is an instance of sets essentially depending on their members—i.e., an instance of a law of essence

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<sup>96</sup> Compare Ruben (2012: ch. 6) on the role of laws of nature in scientific explanation.

concerning sets and their members. Because instantiation is a subspecies of rigid-partial essential dependence, this secures an explanatory role for the relevant law of essence. The fact that sets essentially depend on their members rigidly partially metaphysically explains the fact that {Obama} essentially depends on Obama. Thus, the law of essence concerning sets and their members plays a crucial role in metaphysically explaining its instances.

Return to the navy blue sweater. The sweater's blueness essentially depends on its navyness. This essential dependence relation between the sweater's blueness and its navyness is an instance of an essential dependence relation at the level of universals between blueness and navyness. It is a law of essence that blueness essentially depends on navyness, and the essential dependence involving the sweater is an instance of this law of essence. Assuming that instantiation is *Instance Dependence*, it follows that the fact that blueness essentially depends on navyness partially metaphysically explains the fact that the sweater's blueness essentially depends on its navyness. Once again a law of essence, in this case concerning the properties blueness and navyness, plays an explanatory role that cannot be eliminated.

In the final example concerning Mona Lisa, Mona Lisa's smile essentially depends on her mouth. This essential dependence relation is itself an instance of an essential dependence relation at the level of universals between the kind smile and the kind mouth. Smiles rigidly partially essentially depend on mouths, since the kind mouth is a constituent of a real definition of the kind smile (<'To be a smile is to be a mouth with the corners turned upward>). Consequently, the fact that smiles essentially depend on mouths partially metaphysically explains the fact that Mona Lisa's smile essentially depends on her mouth.

The law of essence concerning smiles and mouths partially metaphysically explains its instances.

Notice that in all three of these cases, the species of essential dependence at the level of particulars *corresponds* to the species of essential dependence at the level of universals. Both essential dependence relations in the case of Obama and his singleton are rigid-full, both are generic-full in the case of the navy blue sweater, and both are rigid-partial in the case of Mona Lisa's smile. This is what we should expect, given that the essential dependence relations at the level of particulars are instances of essential dependence relations at the level of universals. It is also worth mentioning that all three of these cases involve *intracategorical* essential dependence: one kind essentially depending on another kind, one property essentially depending on another property, and so forth. This outcome is simply an accident of the examples that I have selected. Nothing in my account precludes transcategorical essential dependence, such as a mode essentially depending on an object. One potential form of transcategorical essential dependence is truthmaking. If truthmaking is a form of essential dependence, presumably it holds between a truth property-instance of a proposition and some object, the proposition's truthmaker.

Let's recap. According to my proposed non-Humean account of metaphysical explanation, metaphysical explanation is essential explanation. Metaphysical dependence is essential dependence, where essential dependence is understood in terms of real definition. Metaphysical explanations, on the proposed account, hold in virtue of essential dependence relations; the explanans metaphysically explains the explanandum in virtue of a constituent of the explanandum essentially depending on a constituent of the explanans. The laws of

metaphysics are laws of essence—essential dependence relations at the level of universals. Essential dependence relations at the level of particulars are instances of the laws of essence, and it is in precisely this sense that the laws of essence govern or constrain the world. Instantiation, I suggested, is a subspecies of partial essential dependence, and so facts about the laws of essence partially metaphysically explain facts about their instances. This, in a nutshell, is essential explanation.

### *3.7 Virtues of Essential Explanation*

Essential explanation, I submit, is an attractive proposal concerning the nature of metaphysical explanation. Some philosophers, however, particularly those fond of desert metaphysical landscapes, will naturally find the proposal unattractive due to its reliance on a robust account of essence and a so-called “bloated” four-category ontology. Though such philosophers may be implacable, allow me to extol some of the virtues of my essentialist account of metaphysical explanation in the hope that they may at least render the proposal less disagreeable. My discussion of essential explanation’s virtues is by no means exhaustive. I simply aim to highlight what I regard to be four of its cardinal virtues. These virtues include the explanatory capacity of laws of essence, the proposal’s ability to account for the varieties of metaphysical explanation, its ability to account for the widely recognized correlation between metaphysical explanation and essence, and the insight it affords into the nature of objective explanation.

One of the account’s greatest virtues is the explanatory capacity of laws of essence. As we saw in the previous chapter, accounts of metaphysical explanation should reserve an explanatory role for the laws of metaphysics, given the parallels with laws of nature and the

nature of lawhood. Humean metaphysical explanation runs into serious difficulty on this score. Humean laws of metaphysics seem incapable of explaining their instances because Humean laws are grounded in their instances, and instances of the laws of metaphysics cannot explain themselves. However, no real threat of explanatory circularity confronts essential explanation. On a four-category ontology where the four categories of being are equally fundamental, the laws of essence are not explained by their instances. Their instances are what they are in virtue of the laws of essence—not vice versa. As a result, the laws of essence are perfectly capable of explaining their instances.<sup>97</sup> What's more, my essentialist account of metaphysical explanation posits a *single* theory of explanation in general (namely, the dependence theory). We needn't posit two fundamentally different theories of explanation, unlike Humeans, to preserve the explanatory power of the laws of metaphysics. The laws of essence explain their instances because their instances essentially depend on the laws of essence. No additional theory of explanation, such as an unificationist theory, must be introduced.

Another virtue of essential explanation is its ability to account for the varieties of metaphysical explanation. Metaphysical explanation comes in at least four species: rigid-full, rigid-partial, generic-full, and generic-partial. On my proposal we can easily account for why there are these four species of metaphysical explanation. The four species of metaphysical explanation hold in virtue of four corresponding species of essential dependence. A metaphysical explanation is rigid-full *because* it holds in virtue of a rigid-full essential dependence relation; *mutatis mutandis* for the other three species of metaphysical explanation.

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<sup>97</sup> It might be objected that the threat of explanatory circularity is real if universals are Aristotelian or immanent universals. I reply to this objection in the next section.



That's why there are four species of metaphysical explanation, and that's why they have the features that they have.

Next, my essentialist account of metaphysical explanation accounts for the widely recognized correlation between metaphysical explanation and essence. In one way or another, Rosen (2010), Fine (2012), Audi (2012a; 2012b), Correia (2013), and Dasgupta (manuscript) all recognize some correlation between essence and metaphysical explanation. Facts about metaphysical explanation and facts about the essences of things seem to be necessarily connected in many, if not all, cases. The explanation for this correlation is quite simple on my proposal. Facts about metaphysical explanation are necessarily connected to facts about the essence of things *because* metaphysical explanations hold in virtue of essential dependence relations. Metaphysical explanation just is essential explanation. That's why metaphysical explanation and essence are correlated.

A fourth and final virtue of essential explanation is it provides insight into the nature of objective explanation. Many philosophers, such as Kim (1994), Ruben (2012: ch. 7), Audi (2012a; 2012b), and Schaffer (2012; 2015), find the dependence theory of explanation deeply attractive. The dependence theory, as I characterized it, states that objective explanations hold *in virtue of* dependence relations. Proponents of the dependence theory of explanation often hide behind vague metaphors when characterizing the view, saying that explanations "track" dependence relations or that dependence relations "back," "underlie," or "give rise to" explanations.<sup>98</sup> My proposal, however, allows us to specify the in-virtue-of relation

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<sup>98</sup> See Audi (2012a; 2012b) and Schaffer (2012; 2015) for examples of these metaphors. Audi (2012a) briefly suggests that explanations are propositions and that truthmaking is the relation between explanations and dependence relations. But if objective explanations are relations between facts

between objective explanation and dependence, dispensing with vague metaphors. The suggestion is this: objective explanations *essentially depend* on dependence relations. Dependence is part of what objective explanation is, part of what it is to be an objective explanation. To be an objective explanation is to be a relation between facts in which a constituent of the explanandum depends on a constituent of the explanans. It follows, then, that facts about dependence relations *metaphysically explain* facts about objective explanations. Or, more pithily, dependence metaphysically explains explanation. In this way, essential explanation combines with the dependence theory to illuminate the nature of objective explanation. Essential explanation reveals the essence of explanation.

### *3.8 Objections and Replies*

While these four virtues of essential explanation speak in the proposal's favor, they do not vindicate it. I noted at the start of this chapter that a conclusive defense of my essentialist account of metaphysical explanation is not feasible here, but I would like to briefly raise and reply to some potential objections to the account. The objections are not exhaustive and my replies will be brief. Even so, I trust that this section helpfully gestures at how essential explanation can withstand its detractors.

Essential explanation, I have argued, avoids explanatory circularity, yet one might object that the account cannot avoid explanatory circularity if universals are Aristotelian or immanent universals. Aristotelian universals depend on their instances for their existence; there are no uninstantiated universals. If the laws of essence are just relations between

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rather than propositions, then truthmaking cannot be the appropriate relation between objective explanations and dependence relations.

Aristotelian universals, then it would seem that the laws of essence depend on their instances for their existence. Their instances, in turn, depend on the laws of essence, and so instances of the laws of essence seem to explain themselves. Therefore, either the laws of essence fail to explain their instances or this neo-Aristotelian account must deny that universals are Aristotelian. Like Humean metaphysical explanation, essential explanation suffers from a circularity objection. “*Tu quoque!*” exclaim Humeans.

But this reasoning does not hold water. Aristotelian universals do not depend on their instances in the same way that instances depend on the laws of essence. Instances of the laws of essence *essentially depend* on those laws. Aristotelian universals, on the other hand, *modally existentially depend* on their instances. More specifically, the dependence relation between Aristotelian universals and their instances is generic modal existential dependence:<sup>99</sup>

y generically modally existentially depends on x =<sub>df.</sub> (i) necessarily, y exists only if there is something z such that z satisfies F, and (ii) x satisfies F.

For example, let y be the Aristotelian kind snail, let x be Sally the snail, and let F be some instance of snail or other. To say that the Aristotelian kind snail generically modally existentially depends on Sally is just to say that (i) necessarily, the Aristotelian kind snail exists only if there is some instance of snail or other, and (ii) Sally is some instance of snail or other. True, Aristotelian universals depend on their instances and instances of the laws of essence depend on those laws, but they depend on one another in different senses. Essential dependence is fundamentally different from (and much stronger than) modal existential dependence. So if the existence of Aristotelian universals is explained by their instances, then this is a fundamentally different kind of explanation. Essential explanation, thus, avoids

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<sup>99</sup> Compare Lowe (2006: 36-37).

explanatory circularity without denying the explanatory role of laws of essence or rejecting Aristotelian universals.

Other detractors of essential explanation might complain that the account ties metaphysical explanation and essence too closely together. Not all cases of metaphysical explanation are cases of essential dependence. Rosen (2010) voices a version of this worry against a principle he calls “Mediation,” which, like my essential account, implies a necessary connection between metaphysical explanation and essence.<sup>100</sup> Rosen raises two alleged counterexamples to a necessary connection between metaphysical explanation and essence. On a certain version of non-reductive physicalism, the fact that my c-fibers are firing metaphysically explains the fact that I am in pain, yet the essence of pain is exhausted by its phenomenal character and has absolutely nothing to do with c-fibers firing. The other counterexample presupposes a Moorean position in metaethics. On such a position, the fact that an act is right is metaphysically explained by the fact that it possesses some right-making feature, yet the essence of rightness is indefinable and so does not involve right-making features.<sup>101</sup> Hence, not all cases of metaphysical explanation are cases of essential dependence.

Admittedly, my essentialist account of metaphysical explanation precludes positions like those cited by Rosen. There can be no metaphysical explanation without essential dependence on my proposal. However, I regard this preclusion to be a virtue, not a vice, of my account. Cases of metaphysical explanation without essential dependence are incoherent and should be ruled out, and my proposed account of metaphysical explanation provides a

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<sup>100</sup> See Rosen (2010: 130-133).

<sup>101</sup> Examples adapted from Rosen (2010: 132-133).

principled reason for ruling them out. Besides, the notion of an ontologically neutral account of metaphysical explanation is a pipe dream; any substantive account of metaphysical explanation will preclude some philosophical positions. My own non-Humean account, when fully worked out, may rule out other putative cases of metaphysical explanation. This should come at little surprise, however, since several putative cases of metaphysical explanation (e.g., facts about categorical properties metaphysically explaining facts about dispositional properties) are symptomatic of a programmatic Humean attempt to rid the world of fundamental necessary connections between distinct entities.

A third objection, or set of objections, comes from Schaffer (2015). Schaffer criticizes Rosen (2010) and Fine (2012) for not taking seriously the parallels between causation and metaphysical dependence (and, by extension, those between scientific explanation and metaphysical explanation). His criticisms are threefold:

- Fine and Rosen regiment metaphysical dependence, respectively, as a sentential operator and as a relation between facts, which are best apt for explanation,
- both regiment metaphysical dependence in a noncontrastive format,
- most crucially, both do not include the core conceptual background structure found in structural equation models.

Schaffer concludes from this that metaphysical dependence as Fine and Rosen conceive of it is nothing like causal dependence.<sup>102</sup> Along these lines, one could argue that my essentialist account of metaphysical dependence is nothing like causal dependence.

When directed against essential explanation, Schaffer's criticisms are unconvincing, given that my proposal takes seriously the parallels between scientific explanation and metaphysical explanation. On my account, metaphysical dependence is essential dependence.

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<sup>102</sup> See Schaffer (2015: §4).

Like Schaffer's notion of grounding, essential dependence relates entities from any ontological category, so this gives no reason to prefer Schaffer's notion of metaphysical dependence over my own. We both agree that metaphysical dependence relates entities from any ontological category and that explanation relates facts.

The second criticism concerning contrastivity likewise falls flat. Schaffer motivates his contrastive treatment of metaphysical dependence on the basis of the counterexamples to transitivity discussed in the previous chapter. These counterexamples can be resolved, I argued, by recognizing the distinction between rigid and generic metaphysical explanation, thereby eliminating the need for a contrastive treatment of metaphysical dependence.<sup>103</sup> Schaffer's more fundamental mistake, I suspect, is a conflation of *communicative* explanation and *objective* explanation. Communicative explanations are frequently contrastive in order to clarify the explanans or the explanandum. Ambiguities in the English language make communicating objective explanations a challenge, and contrastivity improves communication of objective explanations by reducing misleading ambiguities, much like word stress. Contrastive communicative explanations help us draw attention to salient aspects of objective explanations—nothing more. From the frequent contrastivity of communicative explanations, it does not follow that objective explanations are contrastive. Communicative explanations are often elliptical as well, but no one would argue that it follows from this that objective explanations are elliptical. That would be to conflate communicative explanation and objective explanation, linguistics and metaphysics.<sup>104</sup>

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<sup>103</sup> Refer to §2.2.3 above.

<sup>104</sup> For this reason I consider Schaffer's contrastive treatment of metaphysical explanation an instance of what C. B. Martin and John Heil (1999: 36) call "linguisticism."

Similarly, Schaffer's third criticism that accounts of metaphysical dependence should include the core conceptual background structure found in structural equation models assumes too much. That structural equation models provide the best models for causation and metaphysical dependence is extremely controversial. Preferring a Humean account of metaphysical explanation over a non-Humean account on this basis is tenuous, at best.

The final and, I believe, most challenging objection to essential explanation that I will consider concerns the ontological status of essential dependence. Lowe (2006) worries about where *transcategorical* relationships like instantiation and characterization belong in a four-category ontology. Although most examples of essential dependence in this chapter have been cases of intracategorical essential dependence, my proposal leaves open the possibility of transcategorical essential dependence. Indeed, if instantiation is a subspecies of essential dependence, as I have suggested, then instantiation is a case of transcategorical essential dependence. Any worry about the ontological status of instantiation, accordingly, carries over to essential dependence.

Under which of the four categories does essential dependence belong?<sup>105</sup> Essential dependence cannot be an object or mode because essential dependence has instances. This leaves us with the two categories of universal, namely, kinds and attributes. Instances of essential dependence are not objects, so essential dependence is not a kind. The only category left is attributes: property universals and relational universals. Instances of property universals are monadic modes, whereas instances of essential dependence seem to be relational modes. Perhaps, then, essential dependence is a relational universal. Now,

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<sup>105</sup> This argument is adapted from Lowe (2006: 44-47).

according to a four-category ontology like Lowe's, relational universals can only relate *kinds*. But essential dependence does *not* only relate kinds. It also relates properties, such as blueness and navyness. Therefore, essential dependence is *not* a relational universal. Here's quite a conundrum! In our effort to categorize essential dependence, we've run out of categories. Essential dependence doesn't belong to any of the four categories. On a four-category ontology, however, every entity belongs to one of the four categories. So either essential dependence is not an entity<sup>106</sup> or the four-category ontology is deficient. Call this the *status problem*.

The status problem strikes at the very heart of my essentialist account of metaphysical explanation. Conceding that the four-category ontology is deficient would send shockwaves through the entire account. My essentialist account presupposes the four-category ontology. To admit that the four-category ontology is deficient is to admit that my account presupposes a deficient ontology. Similarly, conceding that essential dependence is not an entity seems to imply that essential dependence does not exist. And if essential dependence does not exist, then there is no essential explanation.

Lowe's own solution to the problem as it relates to instantiation and characterization is to classify them as "internal relations," in David Armstrong's sense of the term. "In order for an internal relation to hold between two or more entities," explains Lowe, "it is sufficient for those entities to exist."<sup>107</sup> The intrinsic natures of the entities alone guarantees that the relation holds. The relation of being taller than, for example, is commonly taken as a paradigmatic example of an internal relation. Whether a particular elephant is taller than a

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<sup>106</sup> I use 'entity' here in the most general sense of the term.

<sup>107</sup> Lowe (2006: 167).



particular mouse is determined entirely by the heights of the elephant and the mouse. In contrast, distance relations such as the relation of being seven miles from, are not internal relations; the elephant's existence and the mouse's existence alone do not guarantee that the relation of being seven miles from holds between them. Standing in distance relations is not determined entirely by the intrinsic natures of entities.<sup>108</sup> As a result, Lowe claims that internal relations like instantiation and characterization involve "no addition to being," to borrow another phrase from Armstrong. Lowe refuses to acknowledge instantiation and characterization as "genuine 'entities,'" insisting that "these 'relations'" are "nothing in themselves."<sup>109</sup>

The status problem, I believe, affords no easy solution. Following Lowe, we could hold that essential dependence is an internal relation. For essential dependence to hold between two or more entities it is sufficient for those entities to exist. The essences of the entities entirely determine whether essential dependence holds. Consider Mona Lisa's smile. The existence of Mona Lisa's smile and the existence of her mouth guarantee that Mona Lisa's smile essentially depends on her mouth. The essence of Mona Lisa's smile alone ensures that Mona Lisa's smile essentially depends on her mouth. The essence of Mona Lisa's smile involves her mouth, which is just to say that her smile essentially depends on her mouth. Essential dependence is as good as any other candidate internal relation.

One drawback of this reply is that essential dependence seems importantly different from other internal relations like being taller than.<sup>110</sup> We want to say that there is a "real

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<sup>108</sup> Examples adapted from Lowe (2006: 46).

<sup>109</sup> Lowe (2006: 46). The scare quotes belong to Lowe.

<sup>110</sup> Lowe (2006: 46-47) makes the same point in relation to instantiation.

connection,” as Lowe puts it, between Mona Lisa’s smile and her mouth, or between the sweater’s blueness and its navyness, which is absent between objects of different heights. Mona Lisa’s smile *depends* on her mouth and the sweater’s blueness *depends* on its navyness in a way that an elephant’s height and a mouse’s height do not. After all, the elephant can exist without the mouse, but Mona Lisa’s smile cannot exist without her mouth. Unlike most other internal relations, the existence of one of the relata (the dependent entity) guarantees the existence of the other (the dependee) in cases of essential dependence. So simply calling essential dependence an internal relation feels unsatisfying. Essential dependence seems slighted. And even if we acknowledge that essential dependence is more than a mere internal relation, essential dependence is still not an *entity*. Every entity belongs to one of the four categories.<sup>111</sup> Essential dependence does not belong to one of the four categories, and so it cannot be an entity.<sup>112</sup>

Another potential solution to the status problem would be to loosen the restriction that relational universals can only relate kinds. For instance, we could loosen the restriction

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<sup>111</sup> Again, I use ‘entity’ here in the most general sense of the term.

<sup>112</sup> It’s worth noting that essential dependence nearly fits Bennett’s (2011b: 32) description of a “superinternal” relation:

A superinternal relation is one such that the intrinsic nature of only *one* of the relata—or, better, one side of the relation—guarantees not only that the relation holds, but also that the other relatum(a) exists and has the intrinsic nature it does.

In cases of essential dependence, the essence of the dependent entity guarantees not only that essential dependence holds, but also that the dependee exists. For example, the essence of Mona Lisa’s smile guarantees not only that her smile essentially depends on her mouth, but also that her mouth exists. However, the essence of Mona Lisa’s smile only fixes some—not all—of her mouth’s intrinsic properties (e.g., her mouth’s shape but not its density). The essence of the dependent entity, thus, does not fix the intrinsic nature of the dependee, which prevents essential dependence from being a genuine superinternal relation. Essential dependence lies somewhere in between internal and superinternal; it’s semi-superinternal. Alternatively, we can call essential dependence superinternal and Bennett’s relation “superduperinternal.” Yet no matter what we call essential dependence, changing the label does not make it an entity.

by stipulating that relational universals can only relate universals. This would allow for relational universals to relate property universals, to relate relational universals, or to relate universals from different categories. Relational universals can relate *any combination of universals*—not just kinds. By loosening the restriction in this way, characterization can qualify as a relational universal, since characterization relates kinds and attributes. Instances of the relational universal characterization would be relational modes, characterization at the level of particulars.

While the restriction on relational universals has been loosened, it still prohibits instantiation and essential dependence from qualifying as relational universals. On the current proposal, relational universal can only relate universals. Instantiation, however, relates universals and particulars: kinds and objects, attributes and modes. If instantiation is a subspecies of essential dependence, then the current proposal also prohibits essential dependence from qualifying as a relational universal. Even if instantiation were not a subspecies of essential dependence, essential dependence could, in principle, still relate universals and particulars. Essential dependence would still fail to qualify as a relational universal on the current proposal.

The only way, then, that essential dependence and instantiation can qualify as relational universals is if we further loosen the restriction. On this new proposal, relational universals can relate any combination of universals *and categories of being*. Instantiation, conceived as a relational universal, relates categories of universal and categories of particular—that is, the category kind and the category object, the category attribute and the

category mode. With the restriction on relational universals thus loosened, instantiation and essential dependence qualify as relational universals.

The difficulty with this reply to the status problem is that relational universals have *instances*. Instantiation, conceived as can be relational universal relating categories, does not have instances, strictly speaking. Categories have *members*, not instances.<sup>113</sup> Entities *belong* to categories; they do not instantiate them. In rejoinder, one could say that categories have “instances” in some looser sense of the term, but this does not remove difficulty altogether. According to the four-category ontology, instances of relational universals relate *particulars*. “Instances” of instantiation, however, relate *a particular and a universal*—that is, an object and a kind or a mode and an attribute. In this way, “instances” of instantiation relate two entities (one belonging to a category of particular and one belonging to a category of universal) but not two particulars. This makes instantiation and, by extension, essential dependence very odd relational universals. Very odd, but not necessarily incoherent. As far as I can tell, there is no obvious incoherence in this reply to the status problem.<sup>114</sup> I am aware of no argument from Lowe or other philosophers against relational universals of this sort. Until some incoherence in this reply arises, proponents of essential explanation can *provisionally* conclude that essential dependence is a relational universal. And if essential dependence is a relational

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<sup>113</sup> The term ‘members’ here should be understood broadly, rather than narrowly as members of a set. Entities are not members of categories in a set-theoretic sense because categories are not sets. See Lowe (2006: 6).

<sup>114</sup> Potential cause for concern comes from the ontological status of the categories themselves. According to Lowe, the ontological categories are not entities. If categories are not entities, it’s hard to see how relational universals could relate them. So the success of this reply hinges on what we say about the ontological status of the categories. A thorough discussion of the ontological status of the categories, however, would take us too far afield. Instead, I direct interested readers to Lowe (2006: 40-44).

universal, it belongs to one of the four categories. Therefore, we can provisionally conclude that essential explanation is an entity after all.<sup>115</sup>

### *3.9 Conclusion*

Essential explanation, I have argued, provides an attractive account of metaphysical explanation that withstands scrutiny. Unlike Humean metaphysical explanation, essential explanation avoids explanatory circularity and reserves a crucial explanatory role for laws of essence. It accounts both for the varieties of metaphysical explanation and for the widely recognized correlation between metaphysical explanation and essence. Finally, it reveals the essence of explanation itself. The present chapter has been by no means a conclusive defense of my essentialist account of metaphysical explanation; the objections and replies have been but a start. Nevertheless, enough has been done to show that essential explanation merits serious consideration as an account of metaphysical explanation.

The four-category ontology, I believe, provides a uniquely satisfactory metaphysical foundation for metaphysical explanation. Its resources allow for compelling accounts of metaphysical dependence as essential dependence, the laws of metaphysics as laws of essence, and metaphysical explanation as essential explanation. If successful, my essentialist account of metaphysical explanation does more than illuminate the nature of metaphysical explanation. It also helps vindicate the background ontology, giving us one more reason to adopt the four-category ontology that essential explanation presupposes.

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<sup>115</sup> If this second reply to the status problem ultimately fails, proponents of essential explanation can retreat to the position that essential dependence is an internal relation.

# Chapter 4:

## *Eternal Generation*

Due to the nascent form of extant accounts of metaphysical explanation, applications of these accounts, Humean and non-Humean alike, are still being worked out. Insofar as applications have been explored, they generally concern traditional metaphysical disputes. When surveying potential applications, Bliss and Trogdon (2014), for instance, list physicalism about the mental, metaphysical foundationalism, truthmaking, and intrinsicity as areas for exploration.<sup>116</sup> The applications of metaphysical explanation *outside* of metaphysics—to epistemology, to ethics, to philosophy of religion, etc.—have been largely unexplored.<sup>117</sup>

In this chapter I explore an application of my essentialist account of metaphysical explanation to an issue in Christian philosophical theology, namely, to part of the classical Christian doctrine of the Trinity known as *the doctrine of eternal generation*. According to the doctrine of eternal generation, the Son is eternally begotten of the Father. Or, less

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<sup>116</sup> See Bliss and Trogdon (2014: §6).

<sup>117</sup> A few notable exceptions are Chudnoff (2011), Grimm (2014), Bernecker (forthcoming), all of whom explore potential applications of metaphysical dependence to epistemology.

figuratively, the Son exists in virtue of the Father, yet the Son exists eternally. The doctrine of eternal generation is enshrined in the Creed of Nicaea (325 C.E.) and has been affirmed by Christians for nearly 1700 years. Recently, however, the doctrine has been attacked from an unlikely corner of Christendom: otherwise orthodox Protestant evangelicals.<sup>118</sup> Eternal generation, its detractors contend, is both philosophically and theologically unsound. My goal in this chapter is to defend the doctrine of eternal generation by proposing a possible model that avoids standard philosophical and theological objections.<sup>119</sup> Eternal generation, I argue, can be understood as a form of essential dependence. To say that the Son is begotten of the Father is just to say that the Son essentially depends on the Father. The essence of the Son involves the Father, but not vice versa.

I begin by presenting the doctrine of eternal generation and by rehearsing standard philosophical and theological objections to the doctrine. Two bad models of eternal generation in terms of causal dependence and modal dependence are then entertained in order to disclose desiderata for a philosophical model of eternal generation. I then develop my essential dependence model of eternal generation, demonstrating its virtues and how it avoids the standard philosophical and theological objections.

Before we get started, a comment on my method and a disclaimer. Because the present chapter is an exercise in philosophical theology, I will be applying philosophical tools to theological issues. My approach will be generally philosophical, but I will also take it for granted that the witness of Scripture, comprised of the Old and New Testaments, can

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<sup>118</sup> Some of the more prominent Protestant evangelicals who deny eternal generation are J. Oliver Buswell, Lorianne Boettner, Wayne Grudem, Bruce Ware, Millard Erickson, Mark Driscoll, Paul Helm, Keith Yandall, and William Lane Craig. See Giles (2012: 30) for a complete list of detractors.

<sup>119</sup> I use the term ‘model’ loosely (i.e., not in the strict mathematical sense) here and throughout.

provide evidence for or against philosophical views. Indeed, I will cite portions of Scripture in support of my essential dependence model of eternal generation. I will not, however, argue for the evidential value of Scripture here; it is simply assumed.<sup>120</sup> Furthermore, note well that my essential dependence model of eternal generation is just that: a possible model—not a mandate. It is one possible and, I contend, plausible model that aims to show the doctrine of eternal generation’s philosophical coherence.

#### *4.1 The Doctrine*

The doctrine of eternal generation constitutes part of the classical Christian doctrine of the Trinity. On the classical Christian doctrine of the Trinity, the one God eternally exists as Father, Son, and Holy Spirit. God is one *ousia* (substance or essence) in three *hypostases* (persons). The Athanasian Creed puts it this way: “So the Father is God, the Son is God, and the Holy Spirit is God; and yet they are not three Gods, but one God.” Virtually all of the ink spilt on the doctrine of the Trinity by contemporary philosophers has focused on how the one God is Triune, what has been labeled the “threeness-oneness problem” or the “logical problem” of the Trinity.<sup>121</sup> Difficulties surrounding the doctrine of eternal generation are distinct from the threeness-oneness problem for the most part, and so I will disregard the problem for present purposes.

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<sup>120</sup> In general, Protestants evangelicals, who constitute my primary audience in this chapter, share this assumption.

<sup>121</sup> For instance, contributors to the volume by McCall and Rae (2009) overwhelmingly focus on the threeness-oneness problem of the Trinity. Readers interested in this problem should head there for a wealth of solutions. By comparison, discussions of the doctrine of eternal generation by contemporary philosophers are scarce. The only contemporary philosopher, to the best of my knowledge, to defend the doctrine at length is William Hasker. Not even Hasker, however, proposes a possible model of eternal generation. See his (2012: ch. 26).



An important component of the classical Christian doctrine of the Trinity is the *divine processions* or the *eternal relations of origin*. The Persons are related to one another by eternal relations of origin. The Son is eternally begotten of the Father, and the Spirit eternally proceeds from the Father (and the Son or through the Son). As this parenthetical remark indicates, controversy arises over the Son's involvement in the eternal procession of the Spirit. Whether the Spirit eternally proceeds from the Father alone (single procession), from the Father and the Son (double procession), or from the Father through the Son is a vexed matter, dividing the Eastern and Western church. This controversy, the "*filioque* controversy," while intimately connected to the one concerning eternal generation, is not our present focus. My essential dependence model of eternal generation naturally extends to the eternal procession of the Spirit; however, I will return to the *filioque* controversy only briefly when discussing the virtues of the essential dependence model.

According to the doctrine of eternal generation, the Father eternally begets the Son. The ancient Church, responding to Arians wishing to deny the equality of the Father and the Son, placed two critical constraints on the relation of eternal begetting. First, the relation between the Father and the Son is *not* one of creation. The Father does not create the Son. The relation between the Father and the Son must be importantly different from the relation between the Father and creation. The Son is "begotten, not made." Second, the Son's begetting is neither contingent nor against the Father's will. The Father eternally begets the Son "of necessity." The Father cannot exist without begetting the Son, which amounts to a claim of modal existential dependence. Necessarily, the Father exists only if the Son exists.

The eternal begetting of the Son is not against the Father's will in the sense that the Father is not under some external compulsion. He willingly affirms the begetting of the Son.

Operating within these two constraints, we can formulate a minimal statement of the doctrine of eternal generation as follows:

*Eternal Generation:*

Necessarily, the Son depends on the Father for his existence, yet the Son exists eternally.

Whatever it means for the Father to eternally beget the Son, it means at least this.<sup>122</sup> The Son *depends on* the Father for his existence or, equivalently, the Son exists *in virtue of* the Father. This minimal statement implies that the Son modally existentially depends on the Father; that is, necessarily, the Son exists only if the Father exists. Moreover, the Son exists *eternally*. There was never a time at which he was not, and there never will be. At minimum, then, eternal generation requires *eternal modal existential dependence*.

Before moving on to the standard objections to eternal generation, I'd like to register three reasons why the doctrine matters. First, for the Church Fathers, the doctrine of eternal generation ensures the equality, unity, and distinctness of the Father and the Son. Just as a human father begets a fully human son, the Father's begetting of the Son is supposed to ensure that the Son is fully divine. Like Father, like Son. Eternal generation also ensures the unity of the Father and the Son because they are eternally bound together by a relation of origin. And the doctrine ensures the distinctness of the Father and the Son because they have different personal characteristics. Unbegottenness belongs to the Father; begottenness

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<sup>122</sup> More stringent formulations of the doctrine add that the Father "communicates" the divine essence (*ousia*) to the Son, which is meant to preclude the Father from "deifying" the Son, so to speak. In contrast, the Father "generates" the personal subsistence (*hypostasis*) of the Son. See Hasker (2013: 220) and Johnson (2012: 26), for instance.

belongs to the Son.<sup>123</sup> Second, the doctrine has been creedally affirmed by Christians for nearly 1700 years. The Creed of Nicaea (325 C.E.), the earliest creed to affirm eternal generation, expresses the doctrine six times and in six different ways. This ought to give contemporary Christians pause, lest we hastily dismiss the tested and established consensus of the Church. Third (and perhaps most importantly), the doctrine of eternal generation underlies the gospel. The Son is begotten in history *because* he is begotten in eternity. The Father's sending of the Son in the incarnation is an extension of the Father's eternal begetting of the Son, and so eternal generation underlies the good news of salvation by grace through faith in Jesus Christ, the incarnate Son.<sup>124</sup>

#### 4.2 Objections

Detractors of eternal generation level three main objections against the doctrine. According to these detractors, the doctrine of eternal generation has no biblical warrant, is unintelligible, and entails subordinationism. The first of these objections, the *no biblical warrant objection*, is the most commonly voiced. The doctrine of eternal generation, it is argued, finds no support in Scripture. Bruce Ware (2005), for instance, when addressing the divine processions, writes, "The conception of both the 'eternal begetting of the Son' and 'eternal procession of the Spirit' seem to me highly speculative and not grounded in biblical

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<sup>123</sup> Hasker (2013: 215-216, 219) elaborates on how eternal generation ensures equality, unity, and distinctness.

<sup>124</sup> Sanders (2010: 155) says it best:

Behind the missions of the Son and the Spirit stand their eternal processions, and when they enter the history of salvation, they are here as the ones who, by virtue of who they eternally are, have these specific relations to the Father. For this reason, the Trinity is not just what God is at home in himself, but that same Trinity is also what God is among us for our salvation.

teaching.”<sup>125</sup> To undermine alleged biblical support for the doctrine, detractors typically argue that the verses in question either refer to the incarnation or rely on a mistranslation of the Greek term *monogenēs*, which ought to be translated as ‘only’ or ‘unique’ rather than ‘only begotten’.

The second main objection is that eternal generation is unintelligible. Those who wield the *unintelligibility objection* claim that the doctrine is meaningless or philosophically incoherent. Millard Erickson, a former president of the Evangelical Theological Society, speaks for many:

Philosophically, [eternal generation] has been deemed by many to draw a distinction that does not make sense: to insist on some sort of eternal derivation of being from the Father, or the Father being eternally the source of the subsistence of the other two persons, yet in such a way that they are not at all created by him.<sup>126</sup>

Eternal generation is philosophically incoherent, at worst, and unclear, at best. In this way, the doctrine’s unintelligibility renders it untenable.

The third and most sophisticated objection against eternal generation is the *subordinationism objection*. Detractors such as Craig (2003) and Yandall (2009; 2014) contend that the doctrine of eternal generation entails subordinationism, the view that the Son is not fully divine. In particular, the Son lacks two divine attributes: necessary existence and self-existence (aseity). The Son lacks *necessary existence* because the Son, as Craig puts it, “becomes an effect contingent upon the Father.”<sup>127</sup> Depending on the Father for his existence, it might

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<sup>125</sup> Ware (2005: 162). See also Grudem (2000: 1233-1234), Moreland and Craig (2003: 594), and Driscoll and Breshears (2010: 27-28).

<sup>126</sup> Erickson (2009: 184). Later (2009: 251) he asserts that the doctrine is “meaningless” and “does not make sense philosophically.” Driscoll and Breshears (2010: 28) similarly complain that, “the term ‘begotten’ could never be defined with any clarity, so it was of little use.”

<sup>127</sup> Craig (2003).

seem, impinges on the Son's necessary existence. Moreover, the Son lacks self-existence or *aseity* because he exists in virtue of the Father. Aseity, according to Yandall (2014), is "the property *existing without being caused by anything else*." On the doctrine of eternal generation, he contends, the Father acts and the Son results, which implies that the Son causally depends on the Father. Since the Son causally depends on the Father, the Son lacks aseity. Instead, the Son possesses what he calls "next door to aseity—aseity regarding every being but one."<sup>128</sup> Craig (2003) states the worry more generally, without reference to causal dependence: "Even if this eternal procession takes place necessarily and apart from the Father's will, the Son is less than the Father because the Father alone exists *a se*, whereas the Son exists through another (*ab alio*)."<sup>129</sup> Craig's suggestion seems to be that if the Son exists in virtue of the Father in any sense (causal or otherwise), then the Son lacks aseity. Granted that aseity and necessary existence are divine attributes, it follows that the Son is less than fully divine. Eternal generation thus entails subordinationism.

These three objections to the doctrine of eternal generation pose a considerable but not insurmountable challenge. The essential dependence model, I will argue in due course, avoids both the unintelligibility objection and the subordinationism objection. While important, the no biblical warrant objection is more exegetical in nature (as opposed to the philosophical or theological nature of the other two objections) and has been adequately addressed by others.<sup>130</sup> Consequently, I leave the no biblical warrant objection to the exegetes.

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<sup>128</sup> Yandall (2014)

<sup>129</sup> Craig (2003).

<sup>130</sup> For starters, see Giles (2012).

### 4.3 Bad Models

Before developing my essential dependence model of eternal generation, it will be instructive to look at two bad models: a causal dependence model and a modal dependence model. Doing so reveals several desiderata for a philosophical model of eternal generation that will be used later to evaluate the essential dependence model.

On a causal dependence model of eternal generation, eternal generation is a form of causal dependence. In its most basic form:

*Causal Dependence Model:*

The Son is eternally begotten by the Father =*df.* Necessarily, the Father causes the Son to exist eternally.

To say that the Father eternally begets the Son is just to say that necessarily, the Father causes the Son to exist eternally. Problems with a causal dependence model arise immediately. Causation is widely (though not unanimously) regarded to be *diachronic*. The cause precedes the effect in time. If the Father causes the Son to exist, then there was a time when the Son was not—i.e., a time before the Son existed. But the Son exists eternally, so the Son cannot causally depend on the Father. Similarly, causation is typically thought to relate *events*, not persons. The Father and the Son, as persons, are not suitable relata for causation. Even if we were to reject these two constraints on causation, a more permissive conception of causation (i.e., one that allows for synchronic causation between persons) cannot save a causal dependence model. Recall that aseity, as defined by Yandall, is the property of existing without being caused by anything else. If the Father causes the Son to

exist, then the Son lacks aseity and so is not fully divine.<sup>131</sup> A causal dependence model of eternal generation, then, looks doomed from the start.

On a modal dependence model of eternal generation, eternal generation is a form of modal existential dependence. To say that the Father begets the Son is just to say that the Son (rigidly) modally existentially depends on the Father.

*Modal Dependence Model:*

The Son is eternally begotten by the Father =*df.* Necessarily, the Son exists only if the Father exists, and the Son exists eternally.

One problem with this model of eternal generation is that it entails that the Son eternally begets the Father. Necessarily, the Father exists only if the Son exists, and the Father exists eternally. The Father satisfies the definiens, not only the Son, resulting in the Father and the Son eternally begetting one another. However, eternal generation is supposed to be asymmetric: the Father eternally begets the Son, but not vice versa. Another closely related problem is this model generates spurious eternal generation. For example, consider any necessary existent, say, the number 2. Necessarily, the Son exists only if the number 2 exists, and the Son exists eternally. It follows then that the number 2 eternally begets the Son, which is false. Modal existential dependence is too coarse-grained to preclude such unwanted eternal generation. The modal dependence model, too, looks doomed from the start.

The principal benefit deriving from the consideration these bad models is that they disclose desiderata for a good model of eternal generation. A satisfactory model of eternal generation will involve a dependence relation possessing at least the following features:

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<sup>131</sup> One could reply that only the diachronic conception of causation is incompatible with aseity, not the synchronic conception, but this move is *ad hoc*.

- not diachronic
- can relate persons
- non-causal
- asymmetric
- precludes spurious eternal generation.

The essential dependence model of eternal generation, I maintain, satisfies all five of the above desiderata. It is to the essential dependence model that we now turn.

#### *4.4 A New Model*

On my essential dependence model of eternal generation, eternal generation is a form of rigid essential dependence. To say that the Son is begotten of the Father is just to say that the Son rigidly essentially depends on the Father. More formally:

*Essential Dependence Model:*

The Son is eternally begotten by the Father =*df.* The Father is a constituent of a real definition of the Son, and the Son exists eternally.

According to the essential dependence model, the essence of the Son involves the Father. The Father is part of what the Son is, or what it is to be the Son. A real definition of the Son will be of the form <To be the Son is to be the divine person who \_\_\_\_\_ the Father>, where the blank is to be filled in by some description characterizing the Son's essence. Note that the Son, like the Father and the Spirit, falls under the genus divine person; once filled in, the blank will help specify the differentia, what differentiates the Son from the other Persons.

To fill out the real definition of the Son, we will consult Scripture. Of all the descriptions of the Son in the Old and New Testaments, it seems to me that the following verses characterize the essence of the Son, or what it is to be the Son:<sup>132</sup>

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<sup>132</sup> All translations are taken from the English Standard Version. Emphasis added.



“He is *the image of the invisible God*, the firstborn of all creation.” (Colossians 1:15)

“...who, though he was *in the form of God*, did not count equality with God a thing to be grasped....” (Philippians 2:6)

“He is the radiance of the glory of God and *the exact imprint of his nature*....” (Hebrews 1:3)

“...Christ, who *is the image of God*.” (2 Corinthians 4:4)

Without getting into exegetical tangles about these excerpts, these verses suggest that to be the Son is to be the divine person who *is the image of the Father*. The essence of the Son involves being the image of the Father; being the image of the Father is part of what it is to be the Son. In this way, the Father is a constituent of a real definition of the Son, and so the Son essentially depends on the Father.

For the essential dependence model to succeed, the Father cannot essentially depend on the Son. A real definition of the Father must be found in which the Son is not a constituent, so as to show that the essence of the Father does not involve the Son. The form of such a real definition will be <To be the Father is to be the divine person \_\_\_\_\_>, where the blank is to be filled in by some description characterizing the Father’s essence. Once again we consult Scripture to fill out the real definition of the Father:<sup>133</sup>

“For it was fitting that he, for whom and *by whom all things exist*....” (Hebrews 2:10)

“For *from him* and through him and to him *are all things*.” (Romans 11:36)

“...yet for us there is one God, *the Father, from whom are all things* and for whom we exist, and one Lord, Jesus Christ, through whom are all things and through whom we exist.” (1 Corinthians 8:6)

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<sup>133</sup> Compare the words of the Apostle Paul at the Areopagus in Acts 17.

Taken together, these verses suggest that to be the Father is to be the divine person *on whom all things ultimately depend*.<sup>134</sup> All things, created or not, ultimately depend on the Father. Creation causally depends on the Father, but not all things depend on the Father causally. Most notably, the Son does not causally depend on the Father, yet the Son still depends on the Father. That is, the Son rigidly essentially depends on the Father. To be the Father is to be the divine person on whom all things ultimately depend, causally or otherwise.<sup>135</sup>

#### 4.5 *Virtues*

The essential dependence model, as just described, satisfies all five desiderata listed above. To begin the checklist, essential dependence is *not diachronic*. Insofar as essential dependence is in time, it is synchronic. As a result, essential dependence is perfectly compatible with eternal existence. Furthermore, essential dependence is *non-causal*. Unlike causation, essential dependence is synchronic and can relate entities from any ontological category. Essential dependence is an internal relation, whereas causation is widely assumed to be an external relation.

Essential dependence can also *relate persons* because, as just mentioned, it can relate entities from any ontological category. Generally when essential dependence relates particulars, it relates particulars that instantiate distinct universals. In the case of Obama and his singleton, for example, Obama and {Obama} instantiate distinct kinds (the kind human and the kind set, respectively). The essential dependence relation between the Father and the

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<sup>134</sup> I use ‘things’ here in the most general sense of the word, equivalent to ‘entities’.

<sup>135</sup> Alternatively, one could define the Father as the divine person *who is the ultimate source of all things*. However, the term ‘source’ is misleading, suggesting that the Father is the *causal* source of all things. In any case, my proposed real definition may require reconceiving Fatherhood, though not in a way that is without exegetical support.

Son, however, relates entities that instantiate a *single kind*, namely, the kind divine.<sup>136</sup> This makes the essential dependence relation between the Father and the Son unusual, but this is exactly what we should expect. Eternal generation is unusual! It's not something you see every day.

Moreover, essential dependence between the Father and the Son can be reasonably regarded as *asymmetric*. Notice that the Son is not a constituent of the proposed real definition of the Father. As a result, the Father does not rigidly essentially depend on the Son. It might be thought, however, that the Father *generically* essentially depends on the Son. Recall that in cases of generic essential dependence, one entity essentially depends on *a type or sort of entity* that satisfies predicate F, namely, some F or other (or Fs):

y generically essentially depends on x if (i) Fs are a constituent of a real definition of y, and (ii) x satisfies F.

If we let 'F' be all things (i.e., some thing or other), then the Father generically essentially depends on every entity whatsoever, including the Son. The Son *rigidly* essentially depends on the Father, and the Father *generically* essentially depends on the Son. Despite this deliverance, one could insist that the desired asymmetry between the Father and the Son has been achieved. After all, the Son rigidly essentially depends on the Father, but not vice versa. Others might remain unconvinced, arguing that the desired asymmetry requires that the Father can essentially depend on the Son *in no way*. The best reply for proponents of the essential dependence model at this point, I think, is to maintain that all things (i.e., some thing or other) cannot serve as the predicate F. This is because all things is *not* a type or sort

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<sup>136</sup> Because the Father and the Son instantiate a single kind, there is no law of essence that governs or constrains them. Laws of essence, as I have characterized them, relate *distinct* universals (and perhaps distinct ontological categories).

of entity in the sense required by the definition of generic essential dependence. In fact, all things is not an entity at all. It is the most general ontological category, *the category of entities* or *beings*, to which everything whatever belongs. Ontological categories, according to the four-category ontology, are not themselves entities. As a result, the category of entities is not a type or sort of entity in the sense required for generic essential dependence. It cannot serve as the predicate F. Therefore, the Father cannot generically essentially depend on the Son—or anything else. The Son essentially depends on the Father, but the Father in no way essentially depends on the Son.

The final desideratum on the checklist is *precluding spurious eternal generation*. Compared to modal dependence, essential dependence is much more fine-grained. Essential dependence precludes the Son from eternally begetting the Father, as we have just seen, and it similarly precludes necessary existents like the number 2 from eternally begetting the Son. In order for the number 2 to eternally beget the Son on the essential dependence model, the Son must essentially depend on the number 2. But the number 2 is not a constituent of the proposed real definition of the Son (or any other plausible real definition of the Son), and so the Son does not essentially depend on the number 2. The essential dependence model in this way precludes spurious eternal generation.<sup>137</sup>

Having satisfied all five desiderata, all that remains is to demonstrate how my essential dependence model avoids the unintelligibility and subordinationism objections. First, the *unintelligibility objection*. Though plenty of philosophers reject the notion of essential

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<sup>137</sup> Another bonus of the essential dependence model is that it is not philosophically *ad hoc*. Essential dependence is a reputable dependence relation, so there is no need to invent some previously unheard-of dependence relation in order to account for the doctrine of eternal generation.

dependence, they do not typically reject it on the grounds that it is unintelligible. Essential dependence has been widely regarded as meaningful and philosophically coherent for millennia, dating back to Aristotle, at least. And if essential dependence is meaningful and philosophically coherent in other cases, there is no principled reason why it should not be meaningful and philosophically coherent in this case. So the unintelligibility objection poses no credible threat to the essential dependence model of eternal generation.

The essential dependence model likewise escapes the *subordinationism objection*. According to the subordinationism objection, the doctrine of eternal generation entails that the Son lacks the divine attributes of necessary existence and aseity. Yet essential dependence is perfectly compatible with necessary existence. To illustrate, consider the number 2 and its singleton. The number 2 necessarily exists and so does its singleton, {2}. Nevertheless, {2} essentially depends on the number 2, since the number 2 is a constituent of a real definition of {2}. Essential dependence is thus entirely consistent with the Son's necessary existence. Similarly, essential dependence poses no threat to the Son's aseity. Yandall (2014) defines aseity in causal terms, as the property of existing without being caused by anything else. Essential dependence, though, in no way implies that the Father causes the Son to exist. Essential dependence is form of *non-causal* dependence and is thereby consistent with the aseity of the Son.

Detractors like Craig (2003) might reply that aseity should be defined more generally in terms of dependence. Aseity is not the property of existing without being caused by anything else; rather, it is the property of existing without *depending on* anything else. The Son essentially depends on the Father, so it follows that the Son does not truly possess aseity. At

best, the Son possesses “next door to aseity—aseity regarding every being but one.” In rejoinder, proponents of the essential dependence model should invoke the accepted distinction between the divine essence (*ousia*) and the person (*hypostasis*) of the Son. By invoking this distinction, we can maintain that the Son possesses aseity with respect to the divine essence, but not with respect to his person. Here we can emulate John Calvin:

Therefore we say that the deity in an absolute sense exists of itself; whence likewise we confess that the Son since he is God, exists of himself, but not in respect of his Person; indeed, since he is the Son, we say that he exists from the Father. Thus his essence is without beginning; while the beginning of his person is God himself.<sup>138</sup>

Because the Son possesses aseity with respect to the divine essence, he possesses something greater than “next door to aseity.” Admittedly, the Son does not possess aseity with respect to his person, as opposed to the Father, who possesses aseity both with respect to the divine essence *and* with respect to his person. But it is not at all clear that this difference entails that the Son is not fully divine. Detractors must supply additional argument to show why the Son must possess aseity with respect to his person—not just aseity with respect to the divine essence—in order to qualify as fully divine.

If it remains mysterious how one can claim that the Son possesses aseity with respect to the divine essence, but not with respect to his person, there is another familiar distinction that proponents of the essential dependence model can invoke in order to illuminate this claim. Although I have been speaking as if ‘essence’ is univocal, the term can be used to refer to an entity’s *individual essence* or its *general essence*. Every individual object is an instance of

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<sup>138</sup> Calvin (1960: I.13.25). And (1960: I.13.19):

When we speak simply of the Son without regard to the Father, we well and properly declare him to be of himself; and for this reason we call him the sole beginning. But when we mark the relation that he has with the Father, we rightly make the Father the beginning of the Son.

some kind K. “If X is something of kind K,” Lowe explains, “then we may say that X’s *general* essence is *what it is to be a K*, while X’s *individual* essence is *what it is to be the individual of kind K that X is*, as opposed to any other individual of that kind.”<sup>139</sup> For example, Sally the snail is an instance of the kind snail. Sally’s general essence is *what it is to be a snail*, while Sally’s individual essence is *what it is to be Sally*, as opposed to some other snail. The individual/general essence distinction similarly applies to the Son. The Son is an instance of the kind divine. The Son’s general essence is *what it is to be a deity* or *what it is to be a divine person*, while the Son’s individual essence is *what it is to be the Son*, as opposed to some other divine person.

Now, the Son’s *general* essence does *not* involve the Father. If one were to propose a real definition of the Son’s general essence (i.e., *what it is to be a divine person*), the Father would not be a constituent of this real definition. With respect to the Son’s general essence, therefore, the Son does not essentially depend on the Father. In contrast, the Son’s *individual* essence *does* involve the Father. If one were to propose a real definition of the Son’s individual essence (i.e., *what it is to be the Son*, as opposed to some other divine person), the Father would be a constituent of this real definition.<sup>140</sup> With respect to the Son’s individual essence, therefore, the Son essentially depends on the Father. Putting these two conclusions together, we can say that the Son essentially depends on the Father with respect to his *individual* essence, but not with respect to his *general* essence. And if we grant the more general definition of aseity in terms of dependence, this implies that the Son possesses aseity

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<sup>139</sup> Lowe (2008: 35). Emphasis in original.

<sup>140</sup> My proposed real definition of the Son represents the Son’s *individual* essence. More on this shortly.

with respect to his general essence, but not with respect to his individual essence. Or, in other words, the Son possesses aseity with respect to the divine essence, but not with respect to his person.

It's worth noting that the individual/general essence distinction also diffuses a likely objection to the essential dependence model: the *different essences objection*. Some might argue that the essential dependence model entails that the Father and the Son are not *homoousious*—that is, they do not share the same divine essence. After all, the Father and the Son have different real definitions, so they must have different divine essences. According to the classical doctrine of the Trinity, however, there is only one divine essence (*ousia*); thus, the essential dependence model contradicts the classical doctrine of the Trinity.<sup>141</sup>

The problem with the different essences objection is that it confuses individual essences with general essences. In general, every individual has an individual essence, and if two individuals are numerically distinct, then they must have distinct individual essences (*what it is to be this individual* and *what it is to be that individual*). On the classical doctrine of the Trinity, the Persons are numerically distinct individuals. Because the Father and the Son are numerically distinct, they must have distinct individual essences. If the Father and the Son have distinct individual essences, then they must have *different* individual essences. (Otherwise, the distinctness of the Father and the Son would be arbitrary, since there would be no difference in their individual essences to account for their distinctness.) The Father's individual essence is *what it is to be the Father*, as opposed to the Son or the Spirit, and the Son's individual essence is *what it is to be the Son*, as opposed to the Father or the Spirit. In this

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<sup>141</sup> Erickson (2009: 172) and Yandall (2009: 159-160) level a similar objection against a view known as role or functional subordinationism.



way, on the classical doctrine of the Trinity, the Father and the Son must have different individual essences, on pain of denying that the Father and the Son are numerically distinct individuals. Now, according to the essential dependence model, the Father and the Son have different real definitions. But these real definitions represent the Father's and the Son's *individual* essences—not their general essences. It reveals no flaw in the essential dependence model to say that it entails the Father and the Son have different individual essences, for the classical doctrine of the Trinity itself entails that they have different individual essences. If anything, this is a virtue of the essential dependence model! What *would* be a flaw in the essential dependence model is if it entailed that the Father and the Son have different *general* essences. But the model does not entail this. If we were to propose real definitions representing the general essence of the Father and the general essence of the Son, they would be *identical*. Both real definitions would represent *what it is to be a divine person*. Therefore, the Father and the Son share the same general essence—that is to say, they share the same divine essence. In summary, on the essential dependence model there are two individual essences (bracketing the Spirit) but one general or divine essence, so the different essences objection fails miserably.

Before concluding, I'd like to highlight one final virtue of the essential dependence model of eternal generation—namely, its natural extension to the eternal procession of the Holy Spirit. On an essential dependence model of the eternal procession of the Spirit, eternal procession is a form of essential dependence. To say that the Spirit proceeds from the Father is just to say that the Spirit essentially depends on the Father. Compared to the real definition of the Son, filling out the real definition of the Spirit will be more difficult, given

the *filioque* controversy and the fact that Scripture has far less to say about the Spirit in general. Here's a rough first stab at a real definition of the Spirit: <To be the Spirit is to be the divine person who is the breath of \_\_\_\_\_>. How one fills in the blank will depend on one's position on the *filioque*. The great virtue of the essential dependence model, however, is that it is compatible with any position on the *filioque* controversy. Single processionists can fill in the blank with 'the Father' and double processionists with 'the Father and the Son'. My own preference lies in the middle. If we fill in the blank with 'the Son', then the Spirit essentially depends on the Son. The Son, in turn, essentially depends on the Father. Assuming that essential dependence is transitive, it follows that the Spirit essentially depends on the Father through the Son—that is to say, the Spirit proceeds from the Father through the Son. While I'm not sanguine about settling the *filioque* controversy with this model, I think it does show great promise for a complete essential dependence model of the divine processions in God.

#### 4.6 Conclusion

In this chapter we've explored one fruitful application of my essentialist account of metaphysical explanation in the area of Christian philosophical theology.<sup>142</sup> The essential dependence model of eternal generation, I have argued, possesses several virtues and avoids standard philosophical and theological objections to the doctrine of eternal generation. In the end, the doctrine of eternal generation, like all other doctrines, stands or falls with Scripture. My model shows that eternal generation is philosophically coherent and

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<sup>142</sup> Perhaps this goes without saying, but let me state explicitly, as I haven't before, that the fact that the Father exists metaphysically explains the fact that the Son exists. This metaphysical explanation holds, of course, in virtue of the Son essentially depending on the Father.

theologically sound. If there are good reasons to reject eternal generation (and I don't think there are), they won't be philosophical.

Further applications of essential explanation need exploring. One potential application concerns the epistemology of understanding. As I noted early on, explanation and understanding are intimately intertwined. If understanding is just knowledge of explanations, then knowledge of metaphysical explanation constitutes a distinctively metaphysical form of understanding.<sup>143</sup> By applying my essentialist account of metaphysical explanation, we come to see that metaphysical understanding is essential understanding. This is to say, metaphysical understanding is knowledge of essential explanations and the essential dependence relations in virtue of which they hold. Metaphysical understanding of reality, consequently, comes from knowing the essences of things.<sup>144</sup> In this way, essential explanation can furnish a metaphysical foundation for understanding that is absent in much of the current literature.

No doubt, more work needs to be done to provide a conclusive defense of essential explanation. What I have shown in the present essay is that even the most developed Humean account of metaphysical explanation suffers from explanatory circularity, signaling the need for a radically different account of metaphysical explanation. On my essentialist account, metaphysical explanations hold in virtue of essential dependence relations, which are governed by laws of essence. Essential explanation, I have argued, is an attractive proposal that withstands scrutiny and bears fruit when applied to the doctrine of eternal generation. I modestly submit, then, that metaphysical explanation is essential explanation.

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<sup>143</sup> Grimm (2014) notes this possibility in passing.

<sup>144</sup> Compare Lowe (2011).

## References:

- Achinstein, P. (1983). *The Nature of Explanation*. Oxford: Oxford University Press.
- Aristotle (1984). In J. Barnes (Ed.), *The Complete Works of Aristotle*. Princeton: Princeton University Press.
- Armstrong, D. (1983). *What is a Law of Nature?*. Cambridge: Cambridge University Press.
- Audi, P. (2012a). A Clarification and Defense of the Notion of Grounding. In F. Correia and B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 101-121). Cambridge: Cambridge University Press.
- . (2012b). Grounding: Toward a Theory of the *In-Virtue-Of* Relation. *The Journal of Philosophy*, 109, 685-711.
- Bird, A. (2005). Explanation and Metaphysics. *Synthese*, 143, 89-107.
- . (2007). *Nature's Metaphysics: Laws and Properties*. Oxford: Oxford University Press.
- Bennett, K. (2011a). Construction Area (No Hard Hat Required). *Philosophical Studies*, 154, 79-104.
- . (2011b). By Our Bootstraps. *Philosophical Perspectives*, 25, 27-41.
- Bernecker, S. (forthcoming). On the Metaphysics of Knowledge. In M. Gabriel, W. Hogrebe, and A. Speer (Eds.), *The New Desire for Metaphysics*. Berlin: Akademie Verlag.
- Bliss, R. and Trogdon, K. (2014). Metaphysical Grounding. In E. Zalta (Ed.) *The Stanford Encyclopedia of Philosophy* (Winter 2014 Edition). <http://plato.stanford.edu/archives/win2014/entries/grounding/>.
- Calvin, J. (1960). In J. McNeill (Ed.), *Institutes of the Christian Religion*. Louisville: Westminster John Knox Press.
- Chudnoff, E. (2011). What Should a Theory of Knowledge Do? *Dialectica*, 65, 561-579.
- Correia, F. (2005). *Existential Dependence and Cognate Notions*. Munich: Philosophia.
- . (2008). Ontological Dependence. *Philosophy Compass*, 3, 1013-1032.
- . (2013). Metaphysical Grounds and Essence. In M. Hoeltje, B. Schnieder, and A. Steinberg (Eds.), *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence* (pp. 271-296). Munich: Philosophia.
- Craig, W. (2003). A Formulation and Defense of the Doctrine of the Trinity. <<http://www.reasonablefaith.org/a-formulation-and-defense-of-the-doctrine-of-the-trinity>>.

- Dasgupta, S. (2014). On the Plurality of Grounds. *Philosophers' Imprint*, 14, 1-28.
- . (manuscript). The Status of Ground.
- deRosset, L. (2010). Getting Priority Straight. *Philosophical Studies*, 149, 73-97.
- . (2013). Grounding Explanations. *Philosophers' Imprint*, 13, 1-26.
- Driscoll, M. and Breshears, G. (2010). *Doctrine: What Christians Should Believe*. Wheaton: Crossway.
- Erickson, M. (2009). *Who's Tampering with the Trinity?: An Assessment of the Subordination Debate*. Grand Rapids: Kregel Publications.
- Fine, K. (1994). Essence and Modality. *Philosophical Perspectives*, 8, 1-16.
- . (1995). Ontological Dependence. *Proceedings of the Aristotelian Society*, 95, 269-290.
- . (2012). Guide to Ground. In F. Correia and B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 37-80). Cambridge: Cambridge University Press.
- Giles, K. (2012). *The Eternal Generation of the Son: Maintaining Orthodoxy in Trinitarian Theology*. Downers Grove, IL: InterVarsity Press.
- Greco, J. (2010). *Achieving Knowledge*. Cambridge: Cambridge University Press.
- Grimm, S. (2006). Is Understanding a Species of Knowledge? *British Journal for the Philosophy of Science*, 57, 515-535.
- . (2014). Understanding as Knowledge of Causes. *Synthese*, 366, 329-345.
- Hall, N. (2012). David Lewis's Metaphysics. In E. Zalta (Ed.) *The Stanford Encyclopedia of Philosophy* (Fall 2012 Edition). <http://plato.stanford.edu/archives/fall2012/entries/lewis-metaphysics/>.
- . (forthcoming). Humean Reductionism about Laws of Nature.
- Hasker, W. (2013). *Metaphysics and the Tri-Personal God*. Oxford: Oxford University Press.
- Heil, J. (2003). Levels of Reality. *Ratio*, 16, 205-221.
- Hicks, M. and van Elswyck, P. (2015). Humean Laws and Circular Explanation. *Philosophical Studies*, 172, 433-443.
- The Holy Bible, English Standard Version*. Wheaton: Good News Publishers, 2001.
- Jenkins, C. (2011). Is Metaphysical Dependence Irreflexive? *The Monist*, 94, 267-276.
- Johnson, K. (2012). What Would Augustine Say to Evangelicals Who Reject the Eternal Generation of the Son? *Southern Baptist Journal of Theology*, 16, 26-43.
- Kim, J. (1993). *Supervenience and Mind: Selected Philosophical Essays*. Cambridge: Cambridge University Press.
- . (1994). Explanatory Knowledge and Metaphysical Dependence. *Philosophical Issues*, 5, 51-69.
- Kitcher, P. (1981). Explanatory Unification. *Philosophy of Science*, 48, 507-531.
- . (1989). Explanatory Unification and the Causal Structure of the World. In P. Kitcher & W. Salmon (Eds.), *Scientific Explanation* (pp. 410-505). Minneapolis: University of Minnesota Press.
- . (2002). Scientific Knowledge. In P. Moser (Ed.), *Oxford Handbook of Epistemology* (pp. 385-407). Oxford: Oxford University Press.
- Koslicki, K. (2012). Varieties of Ontological Dependence. In F. Correia & B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 186-213). Cambridge: Cambridge University Press.

- . (2013). Ontological Dependence: An Opinionated Survey. In M. Hoeltje, B. Schnieder, and A. Steinberg (Eds.), *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence* (pp. 31-64). Munich: Philosophia.
- . (forthcoming). The Coarse-Grainedness of Grounding. *Oxford Studies in Metaphysics*.
- Lange, M. (2013). Grounding, Scientific Explanation, and Humean Laws. *Philosophical Studies*, 164, 255-261.
- Lewis, D. (1983). New Work for a Theory of Universals. *Australasian Journal of Philosophy*, 61, 343-377.
- . (1986). *Philosophical Papers, Volume 2*. Oxford: Oxford University Press.
- . (1994). Humean Supervenience Debugged. *Mind*, 103, 473-490.
- . (2000). Causation as Influence. *Journal of Philosophy*, 97, 182-97.
- Litland, J. (2013). On Some Counterexamples to the Transitivity of Grounding. *Essays in Philosophy*, 14, 19-32.
- Locke, J. (1975). In P.H. Nidditch (Ed.), *An Essay Concerning Human Understanding*. Oxford: Clarendon Press.
- Loewer, B. (1996). Humean Supervenience. *Philosophical Topics*, 24, 101-126.
- . (2012). Two Accounts of Laws and Time. *Philosophical Studies*, 160, 115-137.
- Lowe, E. J. (1989). *Kinds of Being: A Study of Individuation, Identity, and the Logic of Sortal Terms*. Oxford: Blackwell.
- . (2006). *The Four-Category Ontology: A Metaphysical Foundation for Natural Science*. Oxford: Oxford University Press.
- . (2008). Two Notions of Being: Entity and Essence. *Royal Institute of Philosophy Supplement*, 62, 23-48.
- . (2009a). *More Kinds of Being: A Further Study of Individuation, Identity, and the Logic of Sortal Terms*. Oxford: Wiley-Blackwell.
- . (2009b). An Essentialist Approach to Truthmaking. In E.J. Lowe and A. Rami (Eds.), *Truth and Truth-Making* (pp. 201-216). Acumen.
- . (2010). Ontological Dependence. In E. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2010 Edition). <http://plato.stanford.edu/archives/spr2010/entries/dependence-ontological/>.
- . (2011). The Rationality of Metaphysics. *Synthese*, 178, 99-109.
- Makin, M. (manuscript). Rigid/Generic Grounding and Transitivity.
- Martin, C. B. and Heil, J. (1999). The Ontological Turn. *Midwest Studies in Philosophy*, 23, 34-60.
- Maudlin, T. (2007). *The Metaphysics Within Physics*. Oxford: Oxford University Press.
- McCall, T. and Rae, M. (Eds.) (2009). *Philosophical and Theological Essays on the Trinity*. Oxford: Oxford University Press.
- Miller, E. (forthcoming). Humean Scientific Explanation. *Philosophical Studies*.
- Moreland, J. P. and Craig, W. L. (2003). *Philosophical Foundations for a Christian Worldview*. Downers Grove, IL: InterVarsity Press.
- Oderberg, D. (2007). *Real Essentialism*. New York: Routledge.
- . (2011). Essence and Properties. *Erkenntnis*, 75, 85-111.
- Raven, M. (2013). Is Ground a Strict Partial Order? *American Philosophical Quarterly*, 50, 191-199.

- Roberts, J. (2008). *The Law-Governed Universe*. Oxford: Oxford University Press.
- Rosen, G. (2010). Metaphysical Dependence: Grounding and Reduction. In B. Hale & A. Hoffmann (Eds.), *Modality: Metaphysics, Logic, and Epistemology* (pp. 109-136). Oxford: Oxford University Press.
- Ruben, D. (2012). *Explaining Explanation*. Second Edition. London: Paradigm Publishers.
- Salmon, W. (1984). *Explanation and the Causal Structure of the World*. Princeton: Princeton University Press.
- . (1998). *Causality and Explanation*. Oxford: Oxford University Press.
- Sanders, F. (2010). *The Deep Things of God: How the Trinity Changes Everything*. Wheaton: Crossway.
- Schaffer, J. (2008). Causation and Laws of Nature: Reductionism. In T. Sider, J. Hawthorne, and D. Zimmerman (Eds.), *Contemporary Debates in Metaphysics* (pp. 82-107). Oxford: Blackwell Publishing.
- . (2009). On What Grounds What. In D. Chalmers, D. Manley, and R. Wasserman (Eds.), *Metametaphysics: New Essays on the Foundations of Ontology* (pp. 347-383). Oxford: Oxford University Press.
- . (2010). Monism: The Priority of the Whole. *Philosophical Review*, 119, 31-76.
- . (2012). Grounding, Transitivity, and Contrastivity. In F. Correia and B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 122-138). Cambridge: Cambridge University Press.
- . (2015). Grounding in the Image of Causation. *Philosophical Studies*.
- Simons, P. (1987). *Parts: A Study in Ontology*. Oxford: Oxford University Press.
- Skiles, A. (2014). Against Grounding Necessitarianism. *Erkenntnis*. doi: 10.1007/s10670-014-9669-y.
- Strawson, G. (2015). 'Humeanism'. *Journal of the American Philosophical Association*, 1, 96-102.
- Tahko, T. (Ed.). (2012). *Contemporary Aristotelian Metaphysics*. Cambridge: Cambridge University Press.
- Trogon, K. (2013). Grounding: Necessary or Contingent? *Pacific Philosophical Quarterly*, 94, 465-485.
- Van Fraassen, B., 1980, *The Scientific Image*. Oxford: Oxford University Press
- Ware, B. (2005) *Father, Son, and Holy Spirit: Relationships, Roles, and Relevance*. Wheaton: Crossway.
- Wilsch, T. (forthcominga). The Deductive-Nomological Account of Metaphysical Explanation. *Australasian Journal of Philosophy*.
- . (forthcomingb). The Nomological Account of Ground. *Philosophical Studies*.
- Wilson, A. (manuscript). Metaphysical Causation.
- Wilson, J. (2010). What is Hume's Dictum, and Why Believe It? *Philosophy and Phenomenological Research*, 80, 595-637.
- . (2014). No Work for a Theory of Ground. *Inquiry*, 57, 535-579.
- Woodward, J. (2003). *Making Things Happen: A Theory of Causal Explanation*. Oxford: Oxford University Press.
- . (2014). Scientific Explanation. In E. Zalta (Ed.) *The Stanford Encyclopedia of Philosophy* (Winter 2014 Edition). <http://plato.stanford.edu/archives/win2014/entries/scientific-explanation/>.

- Yandall, K. (2009). How Many Times Does Three Go Into One? In McCall, T. and Rae, M. (Eds.), *Philosophical and Theological Essays on the Trinity*. Oxford: Oxford University Press.
- . (2014). Review of Metaphysics and the Tri-Personal God. *Notre Dame Philosophical Reviews*. <<https://ndpr.nd.edu/news/48755-metaphysics-and-the-tri-personal-god/>>.