Revista Portuguesa de Filosofia, 2024, Vol. 80 (4): 925-970.

DOI https://doi.org/10.17990/RPF/2024_80_4_0925

Grounding and Inference to the Best Explanation: A Novel Argument for Theism

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Abstract

This article presents a novel argument for the existence of God based on the metaphysical concept of grounding. Using the methodology of Inference to the Best Explanation, as conceptualised by Peter Lipton, it evaluates six foundationalist theories: Trope-Theoretic Theism, Monistic Substantivalism, Pure Stuff Theory, Mereological Bundle Theory, Extended Simples Theory, and Priority-Based Structural Realism—for their ability to explain the existence of grounding relations in reality. Through rigorous internal and external assessments focusing on coherence, simplicity, unification, and evidential virtues, the paper argues that Trope-Theoretic Theism, which conceives of God as a maximal power trope, provides the most satisfactory explanation for grounding relations. This conclusion offers a new abductive argument for Theism and demonstrates the potential for productive dialogue between metaphysics and religion.

Keywords: causation, explanation, grounding, metaphysics, theism, trope theory.

1. Introduction

1.1 The Nature of Grounding

According to Michael J. Clark and David Liggins,[1] metaphysical grounding (or 'grounding' for short) is a notion that has been 'established as a major concern of metaphysics'. This is that, grounding, within 'analytic' metaphysics, is regularly characterised as a primitive expression of dependence, determination or explanation that is a central notion featured in many areas of contemporary metaphysical theorising. This expression has been championed by 'grounders' (i.e. grounding theo-

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1. Michael J. Clark and David Liggins, "Recent Work on Grounding," *Analysis* 72, no. 4 (2012): 812.

ISSN: 0870-5283
eISSN: 2183-461X

rists) such as Kit Fine,[2] Jonathan Schaffer,[3] and Gideon Rosen,[4] amongst others. Now, in focusing our attention on Schaffer's specific conceptualisation of this notion, we can conceive of grounding as follows:

(1) (Grounding) A primitive directed-dependency relation that necessarily links the more fundamental entities to the less fundamental entities.

In further elucidating the nature of grounding, it will be helpful to set it within its conceptual background. This is that, as noted by Fabrice Correia and Benjamin Schnieder,[5] some of philosophy's most important questions concern matters of *ontological priority*, which is a concept that a number of philosophers take to be a natural and intuitive notion that has a storied history dating back to the writings of Plato—specifically, the Euthyphro dilemma where he asks: 'Is what is holy, holy because the gods approve it, or do they approve it because it is holy?'.[6] More recently, a plausible list of ontological priority claims that cut across the different areas of philosophy are that of, first, mental facts obtaining *because of* neurophysiological facts. Second, H_2O molecules being *grounded by* H, H and O atoms. Third, normative facts being *based on* natural facts. Third, meaning being *due to* non-semantic facts. Fourth, Singleton-Socrates exists *in virtue of* Socrates. And, fifth, *what makes* something beautiful are certain facts about the perception of its beholders. What is of concern in these claims for philosophers is not so much the truth-value of the claims,

2. Kit Fine, "Guide to Ground," in *Metaphysical Grounding: Understanding the Structure of Reality*, edited by Fabrice Correia and Benjamin Schnieder (Cambridge: Cambridge University Press, 2012), 37-80. Fine, Kit. 2015b. "Unified Foundations for Essence and Ground." *Journal of the American Philosophical Association* 1 (2): 296–311; In 'Unified Foundations', Fine articulates a theory where grounding involves a (non-relational) intrinsic connection to the essences of entities.
3. Jonathan Schaffer, "On What Grounds What," in *Metametaphysics: New Essays on the Foundations of Ontology*, edited by David Chalmers, David Manley, and Ryan Wasserman (Oxford: Oxford University Press, 2009), 347-383; "Grounding in the Image of Causation". Philosophical Studies 173 (2016): 49–100. Schaffer's theory, as will be explicated below, focuses on a construal of grounding as a directed dependence relation that takes in relata from any ontological category.
4. Gideon Rosen, "Metaphysical Dependence: Grounding and Reduction," in *Modality: Metaphysics, Logic, and Epistemology*, edited by Bob Hale and Aviv Hoffmann (Oxford: Oxford University Press, 2010), 109-136. Rosen presents grounding as a normative, in-virtue-of relationship among truths.
5. Correia, Fabrice and Schnieder, Benjamin. 'Grounding: An Opinionated Introduction'. In *Metaphysical Grounding: Understanding the Structure of Reality*, edited by Fabrice Correia and Benjamin Schnieder. (Cambridge: Cambridge University Press, 2012), 1.
6. Plato, *Euthyphro* 10a.

but rather what is shared between the examples—which is that of them jointly expressing some form of ontological priority that is related to 'determination', 'dependence' and/or 'explanation.' More specifically, there is a common structure in the paradigm examples above, in that each of them contains a connective that divides the sentences into an *antecedent* (i.e. what comes before the connective) and a *consequent* (i.e. what comes after the connective). In each of the examples above, the consequent provides some form of explanation for *why* the antecedent obtains—the antecedent clauses seem to be *explained* by the consequent clauses, which are both connected by expressions that enable the consequent clauses to provide a *reason for*, or an *account of*, the antecedent, based on the dependence or determination of the entities that are expressed by the consequents. In recent times—specifically in the field of contemporary metaphysics—a number of philosophers have focused on identifying the *nature* of this expression—with a large number of individuals coming to understand it in terms of the distinct metaphysical notion of grounding.

Now, in explicating the particular character of the relation of grounding, grounders usually focus on detailing the specific formal principles, modal pattern, explanatory and generative roles that grounding has, which all help to further demystify it. So, in following this demystification procedure, we can see that the consensus for grounders is that grounding comes in two varieties: a full variety and a partial variety, which can be construed as follows:

(2) (Full/Partial) (i) (Full): x is a full ground of y if x on its own is sufficient to ground y.
(ii) (Partial): x is a partial ground of y if x on its own is not sufficient to ground y.

In its 'full' and 'partial' varieties, grounding is regularly taken to be governed by the following three formal principles:[7]

7. However, all of these formal principles are indeed controversial. Thus, firstly, for issues with asymmetry, see Gonzalo Rodriguez-Pereyra, "Grounding is not a Strict Order," *Journal of the American Philosophical Association* 1 (2015). Secondly, for issues with irreflexivity, see Carrie Jenkins, "Is Metaphysical Dependence Irreflexive?" *Monist* 94 (2011). Thirdly, for issues with transitivity, see Jonathan Schaffer, "Grounding, Transitivity and Contrasitivity," in *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schnieder (Cambridge: Cambridge University Press, 2012), 112-138.

(3) (Irreflexivity) No x is grounded in itself.
(4) (Asymmetry) If x grounds y, then y does not ground x.
(5) (Transitivity) If x grounds y, and y grounds z, then x grounds z.

Thus, given these formal principles, grounding induces a strict partial order over the entities that are in its domain.[8] That is, grounding gives rise to a hierarchy of grounds, in which the grounds of a fact (or entity), as Johannes Korbmacher notes, 'rank 'strictly below' the fact (or entity) itself'.[9] Furthermore, grounding is also usually taken to be governed by the following principle that expresses a modal pattern:[10]

(6) (Non-monotonicity) If x grounds y, it does not follow that y is grounded by x and any other fact (or entity) r.
(7) (Hyperintensionality) If x grounds y, it does not follow that x grounds any fact (or entity) that is intensionally equivalent to y.
(8) (Necessitarianism) If x grounds y, then x necessitates y.

Thus, given the principles that express a modal pattern, grounding entails a necessary dependence of the grounded on the grounds, in that the existence of the latter entails the existence of the former. In short, grounders guarantee what they ground.[11] However, they perform this necessitating action in a 'fine-grained', rather than a 'coarse-grained' manner, in that they do not necessarily ground other superfluous entities as well. Thus, grounding, in its most basic construal, is an expression that conveys some form of *directedness* and *necessitation*. However, to aid us in our precisification task, it will be helpful to now narrow our focus by

8. Kelly Trogdon, "An Introduction to Grounding," in *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, ed. Miguel Hoeltje, Benjamin Schnieder, and Alex Steinberg (Munich: Philosophia Verlag, 2013), 97-122. For arguments against ground being a strict order, see Rodriguez-Pereyra, "Grounding". For a defense of ground as a strict order, see Michael Raven, "Ground," *Philosophy Compass* 10 (2015): 322-333..

9. Johannes Korbmacher, "Axiomatic Theories of Partial Ground I," *Journal of Philosophical Logic* 47 (2018): 161.

10. First, for an explanation of the non-monotonicity of ground, see Paul Audi, "Grounding: Toward a Theory of the In-Virtue-Of Relation," *Journal of Philosophy* 109 (2012): 685-711. Second, for an explanation of the hyperintensionality of ground, see Jenkins, " Metaphysical ". Third, for an extended explanation of necessitarianism, see Trogdon, "Introduction". For issues with it, see Stephan Leuenberger, "Grounding and Necessity," *Inquiry* 57 (2013): 151-174. And for a defence of it, see Ross P. Cameron, "Turtles all the Way Down: Regress, Priority, and Fundamentality," *The Philosophical Quarterly* 58 (2008): 1-14.

11. Trogdon, "Introduction".

further unpacking the specific ground-theoretic framework provided by Jonathan Schaffer. Within this theory proposed by Schaffer,[12] grounding is best modelled as a *primitive 'directed-dependency' relation* associated with the notion of ontological priority. This directed-dependency relation takes in terms from any arbitrary ontological category and links a *more fundamental input* to a *less fundamental output*. Hence, according to Schaffer,[13] there is an ontological ordering within reality, in that some entities are derivative of other, more fundamental entities. The fundamental entities of reality ontologically undergird the derivative entities, and grounding is the relation that connects the undergirding entity to entities that are at a higher level in the structure of reality. Thus, within this perspective, there is a hierarchical view of reality that is ordered by priority in nature. Once one distinguishes more from less fundamental entities, it is natural to posit a relation linking certain more fundamental entities to certain less fundamental entities which derive their existence from them. Grounding is thus the name of this direct 'linkage', which is governed by the above formal and modal principles, connects the more to the less fundamental entities, and thereby imposes a *hierarchical structure* over what there is.

1.2 The Explanatory Task

Given this important use of the notion of grounding (among other things), time and effort have been spent on further explicating the nature of this dependence. Yet, an important question that has only recently been focused on is that of the following: *in-virtue of what does the relation of grounding exist, obtain or is instantiated on particular occasions*? Does the existence of grounding within our layered structure of reality have a further, more fundamental explanation, or not? In other words, does grounding itself need to be grounded? And if so, what entity(ies) can fulfil this role? These remain active areas of debate; however, for our purposes in this article, an assumption will be made that grounding relations are an ineliminable non-fundamental feature of reality. And so, any comprehensive metaphysical theory needs to account for their existence and nature.[14] In this article, I seek to assess the extent to which Theism—the

12. Schaffer, "Grounding".
13. Schaffer, "Grounds What".
14. For an argument for the primitiveness of grounding (and thus there being certain grounding relations that are fundamental), see Jonathan Schaffer, "Laws for Metaphysical Explanation," *Philosophical Issues* 27, no. 1 (2017): 302-321. And for an

claim that there is a God—can indeed provide the best explanation for the instantiation of the grounding relation within the layered structure of reality. And thus, given the truth of this type of explanation, we will have in front of us a new *abductive* argument for the existence of God from grounding.[15] Our analysis begins with a detailed exploration of abductive reasoning itself, clarifying its function and significance in philosophical inquiry. We then apply this methodological framework to evaluate various metaphysical systems that propose explanations for the concept of grounding. Central to our discussion is the proposal of Trope-Theoretic Theism, a variant of Theism that I argue offers the most persuasive explanation for grounding relations observed in the world. Hence, at the end of our exploratory journey, we will thus have one additional reason to believe in the existence of God.

2. Inferential Methodology: The Nature of Inference to the Best Explanation

2.1 Inference to the Loveliest Explanation

In the investigation of the best explanation for the instantiation of grounding relations within the layered structure of reality, we can state succinctly the inferential methodology that will be utilised here:

(9) (Inferential Method)
- (i) *Stage One (Generation)*: Generate a number of logically compatible potential explanatory candidates in light of the background beliefs of the inquirer.
- (ii) *Stage Two (Selection)*: Select (i.e., infer) the best explanation (i.e., the loveliest (and thus likeliest) explanation) from the pool of plausible potential explanatory candidates, according to criteria of loveliness (i.e., collection of theoretical virtues).

In elucidating the nature of this methodology, it will be important to first distinguish between three key forms of inference: deduction, induction, and abduction. On the one hand, deductive inference is characterised by its logical certainty—that is, when the premises are true, the

argument for the non-fundamentality of grounding, see Joshua R. Sijuwade, *Analytic Theism: A Philosophical Introduction* (New York: Routledge, 2024), 420-422.

15. The argument featured in this article is a distilled version of that offered in Sijuwade, *Analytic*, 378-443, and so for the significantly more developed version of this argument, refer to that work.

conclusion must necessarily follow. In contrast, and on the other hand, inductive and abductive inferences are non-necessary and ampliative, meaning they extend our knowledge beyond what is strictly contained in the premises. So, our focus will be on abduction, particularly through the IBE model. The specific form of IBE under focus was developed by Peter Lipton,[16] where this particular approach put forward by him goes beyond simply finding the most likely explanation of the data, but rather it seeks the 'loveliest' explanation of the data—that is, the one that, if true, would provide the deepest understanding. And so, under this specific iteration of it, IBE, as noted in (9), unfolds across two stages: in the first stage, termed the 'generation' stage, we generate potential explanations that are logically compatible with the data, and place these within a pool termed Pool A. And then, after this, we allow the most plausible amongst this wide class, guided by an 'epistemic filter', to move onto another pool of potential explanations termed Pool B. And so, on the basis of this, we then transition on to the second stage, termed the 'selection' stage, where we then select the 'loveliest' explanation from these plausible explanations, using criteria termed the loveliness criteria, that is based on a range of theoretical virtues.

2.2 Systematisation of Theoretical Virtues

To systematise these theoretical virtues, I believe we can follow Michael Keas' framework,[17] which identifies 12 theoretical virtues categorised into four main classes: evidential, coherential, aesthetic, and diachronic. Now, even though these four main classes of theoretical virtues are important within a general scientific context, it is important to note, however, that we need to make certain modifications to the proposed framework when applying it within a metaphysical context. That is, first, we need to recognise that metaphysical explanations are primarily retrodictive rather than predictive. That is, they aim to explain the fundamental nature and structure of reality *as it is and has been*, not to make predictions about future phenomena. And thus, because of this, we can make the important decision to remove the diachronic virtues, that featured

16. Peter Lipton, *Inference to the Best Explanation*, 2nd Edition (London: Routledge, 2004).
17. Michael N. Keas, "Systematising the Theoretical Virtues," *Synthese* 195 (2018): 2761-2793. Lipton did not himself incorporate this specific systematisation of these virtues into his system, and so the following is original to this work (and my other previous work on this topic).

in Keas' systematisation, entirely from our metaphysical version of IBE. And so, in our metaphysical adaptation, we focus primarily on, first, the evidential virtues class—that is, the virtues of *Evidential Accuracy*, where a theory fits the empirical evidence well; *Causal Adequacy*, where a theory's causal factors plausibly produce the evidence in need of explanation, and *Explanatory Depth*: where a theory excels in causal history depth or in other depth measures, such as concerning a range of counterfactual questions. Second, the coherential virtues class—that is, the virtues of *Internal Consistency*, where a theory's components are not contradictory; *Internal Coherence*: where a theory's components are coordinated into an intuitively plausible whole and thus lack ad hoc hypotheses, and *Universal Coherence*: where a theory sits well with (or is not obviously contrary to) other warranted beliefs. Third, and finally, we also focus on the aesthetic virtues class—that is, the virtues of *Beauty*, where a theory evokes aesthetic pleasure in properly functioning and sufficiently informed persons; *Simplicity*, where a theory explains the same facts as its rivals, but with less theoretical content, and *Unification*: where a theory explains more kinds of facts than rivals with the same amount of theoretical content. However, even these classes of virtues require a certain amount of adjustment within a metaphysical context. This is that, as fundamentality is a key concept in metaphysics, and thus this field studies the most basic or primitive aspects of reality, this necessitates a further refinement of our approach to the virtue of simplicity—such that in a metaphysical context, we adopt what's known as 'Schaffer's Laser', proposed by Schaffer,[18] instead of the more familiar 'Occam's Razor'. Schaffer's Laser tells us to posit the fewest number of fundamental entities, kinds, and theoretical notions as necessary, while being permissive of non-fundamental entities. This is in contrast to Occam's Razor, which is restrictive of all entities regardless of their fundamental status. Thus, in adapting Keas' framework for metaphysical inquiry, we retain three key virtue classes—evidential, coherential, and aesthetic—while modifying one of the virtues of the latter class: simplicity, by replacing Occam's Razor with Schaffer's Laser to better account for the unique nature of metaphysical investigation.

18. Jonathan Schaffer, "What Not to Multiply Without Necessity," *Australasian Journal of Philosophy* 93 (2015): 644-664.

2.2 Internal and External Assessment

Now, in further precisifying our methodology, we can now place the various theoretical virtues within an assessment scheme that involves both an *internal* and *external* assessment of a given theory. This is that, we can perform an internal assessment of a theory by focusing, first, on its coherence—that is, its internal consistency, internal coherence and universal coherence—and second, its simplicity—that is, its ability to minimise the number and complexity of fundamental entities posited—and, third, its unification—that is, its ability to integrate diverse phenomena under a single explanatory framework. And then, in an external assessment of a theory, we focus, first, on its evidential accuracy, second, its causal adequacy, and third, its explanatory depth. So, in taking all of these things into account, we can now define a lovely explanation in our metaphysical context as follows:

(10) (Loveliness) A lovely explanation is one that must be coherent, minimises theoretical commitments (particularly at the fundamental level), maximises explanatory power, and unifies all theoretical postulations.

One can thus see that the employment of IBE in our specific context is able to guide us toward the most likely and theoretically robust explanation of the data under analysis. And so, now having established our methodological approach, we can apply it to our task at hand of assessing the veracity of Theism, which, in Stage One, is not focusing on the existence of grounding relations but rather our first, more general phenomena: the existence of non-fundamental entities.

3. Stage One Analysis: Metaphysical Frameworks

3.1 Explanatory Target and Metaphysical Frameworks

Our starting point for our investigation is the observation that reality appears to contain various non-fundamental entities, rather than none at all, and thus we can take this as our first contrastive explanatory target:

(11) (Explanatory Target) Reality appears to contain the existence of various non-fundamental entities, rather than none.

In attempting to satisfactorily explain our target, we must understand the notion of fundamentality and consider various metaphysical

frameworks that could potentially explain the existence of non-fundamental In recent work, Karen Bennett[19] has conceived of the notion of fundamentality through two key aspects: independence (nothing builds x) and completeness (fundamental things collectively build everything else in their world)—where the notion of 'building' encompasses various metaphysical relations such as composition, grounding, and causation (any relation where one thing depends on or is generated by another). Based on these criteria, non-fundamental entities fail at either independence or completeness or both. They are either dependent (something else builds them) or incomplete (they don't participate in building everything else in their world). For example, a chair would be non-fundamental because it depends on its parts for its existence (failing independence), and those parts along with the chair don't build everything else in the world (failing completeness). Thus, within this context of fundamentality and non-fundamentality, in contemporary metaphysics four primary candidates present themselves as potential explanations of the existence of non-fundamental entities within reality: *Metaphysical Foundationalism, Metaphysical Flatworldism, Metaphysical Infinitism, and Metaphysical Coherentism*. Each of these frameworks offers a distinct approach to explaining the structure and nature of reality, particularly regarding the existence of non-fundamental entities. Let's start with the central metaphysical framework under analysis: Metaphysical Foundationalism, which we can define succinctly as follows:

(12) (Foundationalism) Every non-fundamental entity is fully built by, and thus dependent on, some fundamental entity or entities that fully account for its nature and/or existence.

In understanding this further, it will be helpful to imagine, if you will, a grand skyscraper, where, at its base, is a solid foundation, and upon this foundation, floor after floor is built, each relying on the ones below it. This is essentially how Metaphysical Foundationalism views reality. It proposes that there exists a level of fundamental entities—let's call this our foundation—and these entities, along with the non-fundamental entities they support, account for the apparent existence of non-fundamental entities in our reality. But what does this mean in practice? Well, in this view, reality has a hierarchical structure. At the very bottom, we have our fundamental entities. These are the bedrock of existence—they don't depend on

19. Karen Bennett, *Making Things Up*. (Oxford: Oxford University Press, 2017).

anything else for their being. Everything else in reality—all the non-fundamental entities—is built upon and depends on these fundamental entities. Think about it like this: in our universe, we might consider fundamental particles like quarks as our foundational entities. Everything else—atoms, molecules, cells, organisms, planets, galaxies—are non-fundamental entities built up from these foundations. Each level depends on the ones below it, creating a clear, hierarchical structure to reality.

Now, in shifting our focus to our first alternative theory, Metaphysical Flatworldism, this perspective posits that every entity is at the same level within reality, and thus, there are no non-fundamental entities, with each entity being fundamental or not existing. And so if Foundationalism is a skyscraper, Flatworldism is thus more like a vast, single-story building. In this view, there's no hierarchy, no levels of reality. Instead, every single entity in existence is considered fundamental. Flatworldism thus suggests that each of these fundamental entities, by its very existence, makes it appear as though there are non-fundamental entities in reality. But this is just an appearance—in truth, everything exists on the same ontological footing. It's a 'flat' ontology, where the concept of 'building' or 'dependence' between entities is rejected. This might seem counterintuitive at first. After all, doesn't a molecule depend on the atoms that compose it? However, a Flatworldist would argue that this apparent dependence is just that—apparent, not real. In their view, the molecule and its constituent atoms are all equally fundamental, existing side by side in a flat ontological landscape. Moving on, let's now consider the second alternative theory: Metaphysical Infinitism. According to this theory, every entity is a member of an infinitely descending chain of grounding and is fully grounded, and thus dependent, on some more fundamental entity or entities that fully account for its nature and/or existence. So if Foundationalism is a skyscraper and Flatworldism is a single-story building, then Infinitism is like an endless staircase, always descending to more fundamental levels without ever reaching a bottom. In this framework, we have an infinite series of entities, each more fundamental than the last. The existence of non-fundamental entities is explained by the existence of more fundamental entities in this endless chain. But crucially, there's no ultimate foundation, no 'ground floor' of reality. So here's how it works: Let's say we have an entity A. In Infinitism, A is grounded by and depends on a more fundamental entity, B. But B itself is grounded by and depends on an even more fundamental entity, C. And C depends on D, and so on, ad infinitum. There's always a more fundamental level to explore, and there is always a deeper explanation to be found. This view thus challenges our intuitions

about the need for an ultimate foundation, as it suggests that explanation and dependence can go on forever, without ever bottoming out at some final, fundamental level of reality.

Lastly, we come to our third alternative metaphysical framework: Metaphysical Coherentism. This view proposes that every entity is fully grounded, and thus dependent, on some fundamental entity or entities that fully account for its nature and/or existence. If our previous analogies were all about buildings, Coherentism is more like a web or a network. In this view, reality isn't hierarchical or infinite, but interconnected. Coherentism proposes that the existence of non-fundamental entities is explained by the existence of other non-fundamental entities, all interconnected in a web of mutual dependence. Hence, there's no ultimate foundation, no infinite descent, just a network of entities that collectively support and explain each other. In this framework, every entity is non-fundamental, but they're all interdependent. Entity A might depend on entity B, which depends on entity C, which in turn depends on A. It's a circular structure, where explanation and dependence loop back on themselves. This might sound paradoxical at first. How can everything be non-fundamental? How can there be dependence without something independent to ground it all? The Coherentist answer is that it's the entire interconnected system that provides the grounding. No single entity is fundamental, but the whole web of reality, taken together, is self-supporting. Each of these frameworks—Foundationalism, Flatworldism, Infinitism, and Coherentism—offers a distinct vision of reality's structure. They each explain the apparent existence of non-fundamental entities differently, with unique implications and challenges. So, in order to decipher between these explanatory frameworks, we need to apply the 'Stage-One Epistemic Filter' (or 'loveliness criteria') to assess which frameworks are most plausible. This filter uses elements of the loveliness criteria detailed previously, such as evidential accuracy, causal adequacy, and explanatory depth, along with simplicity and unification, to determine which frameworks should advance in our analysis.

3.2 Assessment of Metaphysical Frameworks

First, we will focus on our central metaphysical framework: Metaphysical Foundationalism. When we apply our loveliness criteria, Foundationalism emerges as a strong contender, as its hierarchical model aligns well with our intuitive understanding of reality and provides a clear explanatory structure for the existence of non-fundamental entities. In

terms of evidential accuracy, Foundationalism also scores high marks, as it fits well with our observations of the world around us. We see hierarchical structures everywhere in nature—from subatomic particles forming atoms, atoms forming molecules, molecules forming cells, and so on. This observed hierarchy in the physical world lends credence to the Foundationalist model. Causal adequacy is another strong point for Foundationalism, as by positing fundamental entities that serve as the ultimate ground for all of reality, it provides a clear causal story. Non-fundamental entities exist and have the properties they do because of the fundamental entities that build them. This gives us a straightforward explanation for why non-fundamental entities exist at all. Now, when it comes to simplicity, Foundationalism also shines, as in assuming Schaffer's Laser, we can see that this theory, by its very nature, posits the fewest fundamental entities—just those at the base level of reality. Everything else is built from these, making it a remarkably simple theory in this sense. Lastly, unification is actually perhaps where Foundationalism truly excels, as it allows us to derive a vast array of phenomena from a relatively simple base. From a small set of fundamental entities and the laws governing how they combine, we can, in principle, explain the entire complex structure of reality. This powerful unifying capability is thus a major point in Foundationalism's favour.

So, we can turn our attention now onto the first alternative metaphysical framework: Metaphysical Flatworldism. In analysing Flatworldism, one can see that this theory fails to exhibit the necessary evidential and aesthetic virtues of our loveliness criteria, as it faces a significant challenge in providing an adequate explanation for the appearances of built entities. More specifically, the first issue is Flatworldism 's lack of evidential accuracy, which means it fails to exemplify one of the central evidential virtues. As noted previously, evidential accuracy refers to the fit between a hypothesis and the evidence under analysis, such that the truth of the hypothesis would lead us to expect the occurrence of the evidence. Flatworldism denies the existence of any built (non-fundamental) entities, but this appears to conflict with the myriad appearances of everyday built objects such as cars, people, animals, colours, trees, and so on. The proponent of Flatworldism thus faces the challenge of providing a metaphysical and semantic story that accounts for these appearances, similar to how other eliminativist views about certain aspects of reality (like compositional nihilism or ontological nihilism) have attempted to do. This explanatory challenge for Flatworldism has two main components: first, providing a metaphysical account of how sentences about

apparently non-fundamental entities are made true by reality, and second, providing a semantic/linguistic account of how such sentences get their meaning. For the metaphysical component, the Flatworldism proponent might try to say that the relevant region of space contains fundamental elements arranged in a certain way (e.g. 'cat-wise') to account for the apparent existence of a cat. However, it's unclear how this story connects to the truth of sentences about the cat, since Flatworldism cannot appeal to a 'truth-making' relation involving the cat that would require building. For the semantic component, Flatworldism cannot utilise a standard compositional semantics on which the meaning of a sentence is 'built' from the meanings of its constituent expressions, as the view rejects all building relations. Without the key explanatory tools of truth-making and compositional semantics that are premised on building, it appears Flatworldism has no way to satisfactorily explain the apparent structure and organisation in reality that is reflected in ordinary language. Our language certainly seems to be compositional, with meaningful sentences 'built up' from other meaningful expressions. Even if the Flatworldism proponent could somehow explain the appearances of structure, it still seems implausible that a language could lack semantic compositionality and have each sentence be meaningful in a 'basic' way not derived from its parts. Flatworldism's inability to properly discharge this explanatory burden and account for the appearances of built entities means it fails to be evidentially accurate.[20]

The second main issue raised against Flatworldism is its lack of simplicity, which means it fails to exemplify one of the central aesthetic virtues. As also noted previously, simplicity in this context refers to minimising the number and kind of fundamental entities postulated by an explanation. While Flatworldism may initially seem to be very simple by restricting all entities to a single ontological 'level' of fundamentality, the actual conception of simplicity that is argued to be methodologically relevant—that of Schaffer's Laser—focuses specifically on minimising fundamental ontology, seeing non-fundamental 'built' entities as 'ontologically innocent' and not counting against an explanation's simplicity. This is that, Schaffer's Laser, as noted by Bennett,[21] better captures actual philosophical methodology and claims about certain entities being 'nothing

20. For a more detailed unpacking of this argument (and other issues related to Flatworldism), see Bennet, *Making Things Up*, 216-225.

21. Ibid., 220.

over and above' others. For example, an explanation positing both fundamental and non-fundamental entities built from them is intuitively just as simple as one positing only those fundamentals, since the non-fundamentals don't contribute any additional 'being' over and above their fundamentals. They are additional entities, but not additional fundamental entities. Schaffer's Laser also clarifies claims about the 'ontological innocence' of certain entities—non-fundamentals are 'innocent' in the sense that they don't detract from an explanation's simplicity, not in the sense that they aren't real additions to our ontology.

Given the Laser, Flatworldism turns out to be highly non-simple. To account for the huge number and variety of entities we seem to experience, Flatworldism would need to posit a correspondingly huge number and variety of fundamental entities. A view like Foundationalism, in contrast, can posit a much smaller and more limited fundamental basis and explain the apparent diversity through a hierarchy of built entities. While the non-fundamental built entities in Foundationalism are indeed additional existents, they are 'passed over' by the Laser and don't reduce Foundationalism's simplicity. A Foundationalist explanation is just as probable as a Flatworldism explanation positing the same fundamentals since Foundationalism's non-fundamentals are implied to exist by its fundamentals and thus don't lower its probability of being true. Hence, Flatworldism's failure to achieve evidential accuracy and simplicity (given the Laser) means it compares very unfavourably to alternative views like Foundationalism in exemplifying these key theoretical virtues. This provides strong grounds for dismissing Flatworldism as a plausible metaphysical explanation of reality. Restricting ontology to only fundamental entities does not make Flatworldism simpler than competitors. At the same time, Flatworldism has no clear way to discharge the explanatory burden of accounting for the appearances of built entities, given its rejection of building relations and the associated explanatory tools of truth-making and compositional semantics. The balance of abductive considerations thus strongly favours views like Foundationalism over Flatworldism.

Now, let's turn to the second and third alternative metaphysical frameworks: Metaphysical Infinitism and Metaphysical Coherentism. What we can first see through our analysis is that these frameworks face issues with causal adequacy and explanatory depth. To understand these issues, we need to introduce a key principle: the reformulated Kind Instantiation principle (KI). KI, which is a refinement, introduced in my work Analytic

Theism, to an earlier version proposed by Ricki Bliss.[22] This reformulated principle states that:

(13) (Kind Instantiation) Where U is any substantial universal (kind), you can't explain why there are any Us at all by invoking only their instances, even if your explanation goes on forever.

The reconceptualised KI does not assume the existence of a plurality or collection of entities—which was one of the primary issues raised by Thomas Oberle with regard to the cogency of the original KI—rather, it focuses on assuming the existence of a substantial kind, which is conceived of here, at an ontological level, as a substantial universal.[23] That is, in Bliss' work, she does not provide an ontological characterisation of the notion of a kind that is then taken to be at the centre of the KI. However, in the present work, the needed ontological characterisation is made by conceiving of the entity at the heart of our reconceptualised principle as a 'universal'. Hence, it is taken to be the case that this specific type of entity requires an explanation for existing rather than not. However, on the basis of the reconceived KI, as no instance of a substantial universal can explain why that universal exists in the first place, and as 'non-fundamentality' is a substantial universal, one must thus go beyond this universal and posit the existence of an absolutely fundamental entity that can then account for its existence. It will be helpful to flesh this out more by first focusing on further detailing the concept of a substantial universal and then showing why this entity cannot be accounted for by its members, which would thus provide the needed justification for KI.

A substantial kind is a universal, and thus, at a general level, a universal, according to E.J. Lowe,[24] is best conceived of as an entity that can be instantiated by something (whereas a particular is thus an entity that cannot be instantiated by something). As an instantiable entity, a substantial universal is a 'secondary substance'. That is, following Lowe—who follows Aristotle—one can draw a distinction between 'primary substances' (which are not said of a subject, neither are they in a subject) and 'secondary substances' that are species/genera to which primary substances are members (and which are spoken of as being said of a subject

22. Ricki L. Bliss, "What Work the Fundamental?" *Erkenntnis* 84 (2019): 359-379.

23. Thomas Oberle, "No Work For Fundamental Facts," *Philosophical Quarterly* 73, no. 4 (2023): 983-1003.

24. E.J. Lowe, *The Four-Category Ontology: A Metaphysical Foundation for Natural Science* (Oxford: Clarendon Press, 2006).

but not in a subject). Hence, substantial universals (hereafter, kinds), even though they are 'properties' (in some sense of the word), are to be conceived of as 'objects' that are instantiable and have primary substances as members. One may refer to this type of universal by using abstract nouns, such as 'humanity', 'equinity', or 'felinity,' or by using particular substantival nouns, such as 'human', 'horse', 'cat', etc.[25] Moreover, kinds have their membership determined by certain distinctive existence and identity conditions, which can be determined a priori. Kinds can be construed as entities that constitute the very identity of a member of that kind (i.e., what it is to be a member of that kind). That is, members of a kind 'have' this universal' in the sense of them being a particular instance of it—thus, Felix is a particular instance of the kind 'Cat'. As instances of kinds, particular objects are rigidly existentially dependent upon these kinds, where the term 'rigid' used here indicates a lack of flexibility in this dependence relation. That is, the existence of an entity (a given x) requires the existence of another specific entity (a given y).[26] The dependence of x upon y, in this form of ontological dependence, is thus a strict implication—namely, x's existence strictly implying y's existence. Thus, within this context, it is necessary that a particular object's existence is dependent upon the existence of that specific kind.

This is the nature of kinds; one can now ask, however, what reason do we have for believing in the existence of these types of entities? In answer to this question, one can understand that, as noted by Gabrielle Galluzzo,[27] universals 'are usually credited with providing a unified account of a series of phenomena concerning particular objects'. That is, at a general level (substantial and non-substantial), universals are posited due to the 'theoretical roles' that they can perform, such as providing a solution to the problems of the one over many and the many over one, or providing grounds for the facts of resemblance, the causal powers of particular objects, the ontological basis for laws of nature and the metaphysics of

25. E.J. Lowe, "In Defense of Substantial Universals," in *The Problem of Universals in Contemporary Philosophy*, ed. Gabriele Galluzzo and Michael Loux (Cambridge: Cambridge University Press, 2015), 65–84.

26. Tuomas E. Tahko and E. Jonathan Lowe, "Ontological Dependence," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Winter 2015 Edition), Available at: https://plato.stanford.edu/archives/win2015/entries/dependence-ontological/.

27. Gabriele Galluzzo, "A Kind Farewell to Platonism: For an Aristotelian Understanding of Kinds and Properties," in *The Problem of Universals in Contemporary Philosophy*, ed. Gabrielle Galluzzo and Michael Loux (Cambridge: Cambridge University Press, 2015), 93.

modality. At a more specific level, however, substantial universals—that is, kinds—have also been posited for three important reasons: the first reason to posit the existence of kinds is due to them fulfilling the role of providing synchronic and diachronic criteria for particular objects.[28] That is, for synchronic criteria, one counts particular objects on the basis of the specific kinds that they are instances of. And, for the diachronic criteria, a particular object at a certain time is the same object at another time if it belongs to the same kind and exhibits the necessary sort of continuity that is required by an entity that belongs to that kind.[29] The second reason for positing the existence of kinds is that it provides the means for individuating a particular object. That is, particular objects, as instances of kinds, are provided with fixed ontological boundaries, and thus, as Galluzzo writes, 'In some sense, therefore, things are individual because they are instances of kinds'.[30] The third reason for positing the existence of kinds is that it provides the needed unity of particular objects. This is due to the fact that instances of kinds are provided with a certain form of internal cohesion—with entities that do not display a sufficiently high degree of unity, thus not being instances of any 'genuine' kind. Thus, it is reasonable to postulate universals at a general level and kinds at a more specific level, or, at the least, it is more reasonable to posit their existence over that of the theoretical alternative that is proposed by other ontologies of properties (such as that of nominalism), as the latter does not fulfil these important theoretical roles.

Now, it is important to note that KI is not formulated within a traditional Aristotelian framework, but rather the ontological framework of 'Semi-Aristotelian Platonism', which has been defended, each independently, by James Franklin,[31] Matthew Tugby,[32] and José Alvarado.[33] In this view, universals can exist without being instantiated—that is, they are 'transcendent' rather than 'immanent'. This means that while particular objects depend on universals for their existence, universals don't depend on their instances (though this does not mean that the existence of universals

28. Ibid.
29. Ibid.
30. Ibid., 93.
31. James Franklin, *An Aristotelian Realist Philosophy of Mathematics: Mathematics as the Science of Quantity and Structure* (Basingstoke: Palgrave Macmillan, 2014).
32. José Alvarado, "The Grounding Problem for Aristotelianism" (Unpublished, 2019).
33. Refer to these works for reasons for affirming the latter framework over the more traditional Aristotelian framework.

cannot be account for by a non-instance of that universal). This thus now brings us to the crux of our argument against Infinitism and Coherentism. As we can posit that 'non-fundamentality' is itself a substantial universal. It grounds the characteristic of being non-fundamental in entities. According to KI, no non-fundamental entity—no instance of this universal—can account for the existence of the universal itself. To illustrate this, think about the universal 'Cat' again. No matter how many individual cats you point to, you can't explain why the category 'Cat', a substantial universal, exists in the first place – as it is transcendent and thus is not dependent on its instances for its existence. Similarly, no amount of non-fundamental entities can explain the existence of non-fundamentality, a substantial universal, itself. This creates a significant problem for Infinitism and Coherentism. By positing only non-fundamental entities, these frameworks lack the resources to explain why there are any non-fundamental entities at all in the first place. They cannot account for the existence of the universal of non-fundamentality upon which all non-fundamental entities depend. Foundationalism, on the other hand, can solve this problem. By positing fundamental entities that are not instances of the universal of non-fundamentality, it can account for the existence of this universal and, by extension, all non-fundamental entities. This analysis based on KI demonstrates that Infinitism and Coherentism are causally inadequate. They fail to provide a satisfactory explanation for the very phenomenon they're trying to account for—the existence of non-fundamental entities. Now, one could raise the objection concerning the position reached here that if non-fundamental entities need a universal of non-fundamentality to explain their existence, fundamental entities should also need a universal of fundamentality. This seems to create an unjustified asymmetry. The argument for fundamentality claims that fundamental entities can explain the universal of non-fundamentality without needing further explanation themselves, which appears to be special pleading.

In response to this issue, one can state that this objection assumes a false symmetry between fundamental and non-fundamental entities, failing to recognise their crucial differences in explanatory status and nature. Non-fundamental entities require a universal of non-fundamentality because being non-fundamental is a positive, derivative characteristic needing explanation and grounding. It's an essential extrinsic property bestowed by their relationship to other entities. The universal of non-fundamentality grounds and explains this shared characteristic. Conversely, fundamental entities don't require a universal of fundamentality because being fundamental isn't a positive, derivative characteristic. It's defined

by the absence of being grounded in something else. Fundamentality is a purely negative notion—the lack of non-fundamentality. Fundamental entities are self-explanatory endpoints, not pointing beyond themselves for explanation. Fundamentality is the default state of entities, remaining when all positive, derivative characteristics are stripped away. Only deviations from this default state (non-fundamental entities) require special explanation and grounding in a universal. The asymmetry between fundamental and non-fundamental entities is a justified consequence of their different explanatory status, not a problematic double standard. Consider an analogy with colour: Individual colours require explanation, but being coloured itself doesn't need a separate universal of 'colouredness'—it's the default state when colourlessness is absent. Similarly, non-fundamental entities are like individual colours needing explanation, while fundamentality is like colouredness—the default state not requiring its own universal. KI holds for the universal of non-fundamentality, as no individual non-fundamental entity can explain why the universal exists. However, it doesn't apply to fundamental entities because there's no universal of fundamentality to explain. Fundamental entities are explanatory endpoints, not instances of a higher universal. Thus, the objection fails due to assuming a false symmetry. The argument for fundamentality stands, thus supporting the view that some fundamental entities must serve as the ultimate ground of all existence. Hence, the inability to meet the KI is a key reason why Infinitism and Coherentism are filtered out in our stage one analysis.

However, in addition to this, we can also examine the aesthetic virtues, particularly simplicity and unification, as this also reveals further challenges for Infinitism and Coherentism, which have been identified by Andrew Brenner.[34] These challenges are mainly due to the complex metaphysical laws required to sustain their models. This is that, in the case of Infinitism, the framework posits an endless regression of dependencies among entities, where each entity is grounded in another, more fundamental entity ad infinitum. This infinite descent might initially seem straightforward, but it necessitates complex metaphysical laws to maintain coherence and prevent logical contradictions. These laws must articulate how each level of entities relates to the next, be 'forward' and 'backward' looking (i.e., laws determining dependence up and down the

34. Andrew Brenner, "Metaphysical Foundationalism and Theoretical Unification," *Erkenntnis* 88, no. 4 (2023): 1661-1681.

levels/chains) and ensure that this infinite chain can function without a foundational endpoint. Such a setup demands a sophisticated structure of relations that can become unwieldy and difficult to manage, thereby increasing the complexity of the theory rather than simplifying it. Similarly, Coherentism posits a network of interdependent entities where no single entity is fundamental. This model aims to create a coherent system where each entity is explained through its relations with others in a non-linear, network-like fashion. However, to achieve this, Coherentism requires detailed laws that specify how these dependencies operate, how the laws can be forward and backward looking, how they sustain the network without foundational support, and how they avoid circular reasoning. The necessity for such detailed laws and exceptions introduces significant complexity, undermining the simplicity that a non-hierarchical, interconnected model might promise. In contrast, Foundationalism offers a simpler and more unified approach. By positing fundamental entities at the base of all existence, Foundationalism allows for a clear and straightforward explanation of complex phenomena. From these basic entities, a wide array of phenomena can be derived using simpler, forward-looking laws that govern how these fundamental entities interact and combine to form non-fundamental entities. This not only provides a clear causal and explanatory framework but also enhances the theory's unification power. The unification in Foundationalism is evident as it can explain diverse and complex phenomena across different levels of reality from a minimal set of fundamental principles. This comparative simplicity and greater unifying capability make Foundationalism particularly attractive. It avoids the complications of infinite regress and networked dependencies, offering a more manageable and coherent framework that aligns well with both the philosophical pursuit of simplicity and the practical need for explanatory power.

As a result of this stage one analysis, Foundationalism is selected to move forward to Pool B for further assessment. The other frameworks—Flatworldism, Infinitism, and Coherentism—are filtered out at this stage. This conclusion sets the stage for the next phase of our inferential analysis, where we will examine different specific theories within the Foundationalist framework as serious candidates for explaining the structure of reality.

4. Stage Two Analysis: Internal Assessment

4.1 Internal Assessment of Trope Theoretic Theism

In focusing on stage two of our inferential analysis, we will now examine in detail six theories that come under the framework of Foundationalism—*Trope-Theoretic Theism, Monistic Substantivalism, Pure Stuff Theory,* which are 'monistic foundationalist theories, and *Mereological Bundle Theory, Extended Simples Theory, and Priority-Based Structural Realism*, which are 'pluralistic' foundationalist theories. We will assess all of these theories to determine which of them provides the loveliest explanation for the existence of certain phenomena – specifically now, that of the existence of grounding relations within the hierarchical structure of reality. And thus, we can take the following as our new contrastive explanatory target:

(14) (Explanatory Target$_2$) There exist relations of grounding in the layered structure of reality, rather than none.

The phenomena featured in our new explanatory target are thus taken on here as an important elementary feature (or 'element') of non-fundamental reality, which we can term the 'relational element of reality' (with non-fundamental reality having other elements such as physical, temporal, ontological, personal and experiential as well, as explained in *Analytic Theism*.[35] And so, as noted previously, any comprehensive metaphysical theory needs to account for their existence and nature. This is where I believe that Theism has a distinct explanatory advantage. However, before this can be demonstrated, it will be important to first perform an internal assessment of the six theories introduced above and certain 'principles' that I take them to be governed by.

So, in focusing on our central theory, Trope-Theoretic Theism, one can see that, at a general level, Theism signifies belief in God or gods and in Western traditions such as Christianity, it often depicts God as an omnipotent, omniscient, and omnibenevolent being who is the creator and sustainer of all reality. This classical view has sparked considerable debate regarding the logical coherence of God's attributes and their explanatory power for phenomena ranging from the universe's existence to the basis of moral truths. However, recently, in *Analytic Theism* (and other previous

35. Sijuwade, *Analytic, passim*.

works) I introduced a novel concept within the literature termed Trope-Theoretic Theism, which can be conceived of succinctly as follows:

(15) (Trope-Theoretic Theism) There is a God, identified as a maximal power trope.

At the heart of Trope-Theoretic Theism is the metaphysical thesis of Classical Trope Theory, proposed by individuals such as D.C. Williams,[36] and Keith Campbell,[37] posits that entities termed tropes—which are abstract, particular natures—are the fundamental constituents of reality. Hence, the core idea of Trope-Theoretic Theism is thus that of God being understood as a trope of maximal power. This maximal power trope is taken to be the ultimate ground of all reality, the fundamental entity upon which all else depends. Now, what does it mean for God to be a maximal power trope? Well, as a trope, God is understood to be an abstract particular nature and, thus, a non-repeatable instance of power. But not just any power—maximal power. This means that God's power is not limited in any way. It is the highest possible degree of power, encompassing all possible manifestations of it. As a maximal power trope, God is envisioned as possessing a maximally consistent set of great-making attributes, making him extensively and intensively superior to all other entities. A great-making attribute is one that intrinsically enhances the greatness of its bearer, including qualities such as power, knowledge, freedom, goodness, and intentionality. God's possession of these attributes not only makes Him extensively superior—having all the great-making attributes others have and more—but also intensively superior, possessing these attributes to a maximal degree of intensity. This comprehensive and intense possession ensures that God's attributes form a coherent set (thus, it is free from paradoxes like the omnipotence paradox and inconsistencies with reality, such as the problem of evil). This framework affirms God's nature as coherent, unified, and supremely exalted above all possible beings. However, despite God having a maximally consistent set of great-making attributes, this does not mean that God has them as *properties* that he possesses. This is due to the fact that God, as a trope, is metaphysically simple. This means that God's power is not a separate attribute or property that God possesses. [38] Rather, Trope Theoretic Theism takes it to

36. Donald C. Williams, "On the Elements of Being: I," *The Review of Metaphysics* 7, no. 1 (1953): 3-18; "Universals and Existents," *Australasian Journal of Philosophy* 64 (1986): 1-14.

37. Keith Campbell, *Abstract Particulars* (Oxford: Blackwell, 1990).

38. In reference to aspects, there is a use of the term 'attributes' rather than that of the use of the term 'properties'. as the former term helps us to ward off mistaking the entities

be the case that God is identical with his power and his attributes through God having divine 'aspects' rather than divine 'properties'.

Now, briefly, at a more general level, Donald L.M. Baxter introduced the notion of aspects into the literature by arguing that 'self-differing' describes when a single entity qualitatively differs from itself in different respects.[39] For instance, consider David, a committed philosophy professor and a devoted father, who faces a conflict between his professional responsibilities and a promise to his children. Despite his crucial upcoming keynote speech, David also wants to honour his commitment to take his children camping, as promised, for their academic success. This situation exemplifies self-differing, where David, in his roles as both philosopher and father, represents numerically identical but qualitatively distinct aspects of himself. Baxter's theory extends to the ontological and semantic levels, introducing 'aspects' as incomplete, dependent entities that are numerically identical to the individual but qualitatively different. These aspects are expressed through nominal qualifiers like 'insofar as'. He also discusses the implications of Leibniz's Law, which posits that identical entities must share all properties. Baxter suggests that while the law applies to complete entities, it does not necessarily extend to aspects, which can differ qualitatively without contradicting Leibniz's Law.[40] This interpretation allows for a nuanced understanding of internal conflicts and aspectival distinctions without demanding a revision of the foundational principles of identity and contradiction.

This understanding of God as a maximal power trope that has aspects has significant implications for our understanding of the divine attributes. Take, for example, maximal knowledge, on the Trope-Theoretic view, God's maximal knowledge is not a distinct attribute that God has in addition to His power. Rather, God's maximal knowledge is an aspect of his power. It is the power to know all truths. Similarly, God's maximal goodness is not a separate attribute but an aspect of his power—the power to always will and do what is good.[41] Thus, in sum, the theory of Trope-Theoretic

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that are born by aspects to be further entities that are ontologically different from them—as is the case with the use of the term properties.

39. Donald L. Baxter, "Identity in the Loose and Popular Sense," *Mind XCVII*, no. 388 (1988): 575-582; "Self-Differing, Aspects, and Leibniz's Law," *Noûs* 52, no. 4 (2018): 900–920.

40. Baxter, "Self-Differing".

41. This understanding of the divine attributes as aspects of God's power helps to resolve some of the traditional paradoxes and inconsistencies associated with the divine attributes. For example, the apparent tension between God's maximal power and

Theism identifies God as a maximal power trope, a fundamental entity that grounds all non-fundamental reality. Now, in addition to the central elements of this theory, one can also affirm three governing axiological principles within reality:

(16) (Axiological Principles)
(i) The Principle of Goodness: All possible entities have goodness to a certain degree, which would be identified by a fully informed, properly functioning valuer.
(ii) The Principle of Diffusiveness: Goodness is necessarily diffusive of itself.
(iii) The Principle of Plenitude: No genuine potentiality can remain unfulfilled.

First, for the Principle of Goodness (or Goodness Principle), there is an assertion that the intrinsic goodness of an entity is determined by the judgment of fully informed, properly functioning valuers. These valuers, possessing comprehensive knowledge and an unbiased stance, would value an entity for its own sake based on its intrinsic properties. The more complex an entity's intrinsic structure, the greater its degree of intrinsic goodness. Second, for, the Diffusiveness Principle, there is an assertion that goodness necessarily manifests itself in the existence of other good things. And thus a maximally good being, such as God, would inevitably cause and ground the existence of entities outside itself as an expression of its goodness. This creative act stems necessarily, yet wilfully, from the being's nature. And, third, for the Plenitude Principle, there is an assertion that the diffusion of goodness from a maximally good source would result in the actualisation of all genuine potentialities. The variety and abundance of creation would be proportionate to the productive capacity of the source, with a maximally valuable source leading to the maximisation of the number, variety, and diversity of possible entities across all of logical space. Now, it is important to note that these principles are not tied specifically to Trope-Theoretic Theism (and so you can affirm them even though you reject this theory),[42] however, they help to form the foundation of the

knowledge—the question of whether God can do evil—is resolved by understanding these attributes as aspects of a single, unified power. God's power is always directed towards the good, not because God is constrained by goodness but because goodness is an inherent aspect of God's power.

42. As the foundational elements of the Principle of Goodness, is found in the work of Scott A. Davison, *On the Intrinsic Value of Everything* (London: Continuum, 2012), the Diffusiveness Principle, is found in the work of Norman Kretzmann, "A General

theory's understanding of God and his relationship to the world. They suggest that God, as maximally powerful and thus maximally good, necessarily creates a world with the greatest possible variety and richness of being—such that his goodness would be fully diffused within it.

So now that we have the theory and its principles laid out, we can move on to our internal assessment of it in light of, first, its possession of the coherential virtues—which are, again, the virtues of internal consistency, internal coherence and universal coherence—and, second, the aesthetic virtues—which are the virtues of simplicity and unification. First, for the coherential virtues, Trope-Theoretic Theism is a coherent and thus workable theory, by it, first, being an internally consistent theory, as each of the attributes had by God does not involve a contradiction or entail a contradiction—as they form a maximally consistent set, as noted previously. Second, Trope-Theoretic Theism is also an internally coherent theory as each of the attributes of God, as aspects of him, are numerically identical to him and each other; hence, there is unity established based on God's attributes being reducible to aspects of his power. Lastly, Trope-Theoretic Theism is a theory that has universal coherence, as the central claim provided by the theory of Trope-Theoretic Theism fits very well with our warranted beliefs, as it posits the existence of a type of entity—a trope—that is at the foundation of many ontologies within the field of contemporary metaphysics. This is that, philosophers such as Williams,[43] Campbell,[44] Schaffer,[45] Peter Simons,[46] Anna-Sofia Maurin,[47] Douglas

Problem of Creation: Why Would God Create Anything At All?" in *Being and Goodness: The Concept of the Good in Metaphysics and Philosophical Theology*, ed. Scott Macdonald (New York: Cornell University Press, 1991), and the Principle of Plenitude is found, in elementary form, in the work of David Lewis, *On the Plurality of Worlds* (Oxford: Blackwell, 1986).

43. Williams, "On the Elements "; "Universals".
44. Campbell, *Abstract*.
45. Jonathan Schaffer, "The Individuation of Tropes," *Australasian Journal of Philosophy* 79 (2001): 247-259.
46. Peter Simons, "Particulars in Particular Clothing: Three Trope Theories of Substance," *Philosophy and Phenomenological Research* 54 (1994): 553-575.
47. Anna-Sofia Maurin, *If Tropes* (Dordrecht: Kluwer Academic Publishers, 2002); "Tropes," Stanford Encyclopedia of Philosophy, ed. Edward N. Zalta & Uri Nodelman (2018), Available at: https://plato.stanford.edu/entries/tropes/

Ehring,[48] Kris McDaniel,[49] and Michael Loux,[50] all have utilised the concept of a trope within their ontological system. Moreover, tropes are not only featured in the ontological systems of various metaphysicians but are also plausible options for dealing with various issues within contemporary philosophy. That is, tropes, amongst other things, find their use in the metaphysics of properties by providing a means for one to affirm a form of realism,[51] or in the metaphysics of persistence and identity by providing a basis for the notions of endurance and perdurance,[52] or in the philosophy of physics by providing a philosophical basis for quantum theory and the Standard Model of elementary particles.[53] Plausibly, the belief in the existence of tropes is widespread in contemporary metaphysics, and thus, Trope-Theoretic Theism can be taken to strongly exemplify the virtue of universal coherence.

Now, for the virtue of simplicity, Trope-Theoretic Theism allows one to minimise all theoretical commitments, which is to say that it is a very simple theory. This is because the various phenomena of reality are accounted for in terms of the powerful action of one 'intentional entity': God. Moreover, the postulation of the existence of God is quantitively and qualitatively ontologically simple (which is the characteristic of a theory that postulates the fewest number and kinds of entities, objects, properties and relations), as it is the postulation of a single fundamental entity, God, who has all of his numerically identical aspects of him—where an aspect, as noted previously, is a qualitatively differing but numerically identical way that an entity is—and thus God has the fewest number of fundamental properties possible: *zero*, and, as a trope, he instantiates the fewest number of kinds possible: *zero*.[54] Trope-Theoretic Theism is also quan-

48. Douglas Ehring, *Tropes: Properties, Objects and Mental Causation* (Oxford: Oxford University Press, 2011).

49. Kris McDaniel, "Tropes and Ordinary Physical Objects," *Philosophical Studies* 104 (2001): 269-290.

50. Michael Loux, "An exercise in constituent ontology," in *The Problem of Universals in Contemporary Philosophy*, ed. Gabrielle Galluzzo and Michael Loux (Cambridge: Cambridge University Press, 2015), 9-45.

51. Markku Keinänen, Janu Hakkarainen, and Antti Keskinen, "Why Realists Need Tropes," *Metaphysica* 17 (2016): 69-85.

52. Jiri Benovsky, "New Reasons to Motivate Trope Theory: Endurantism and Perdurantism," *Acta Analytica* 28 (2013): 223-227.

53. Matteo Morganti, "Tropes and Physics," *Grazer Philosophische Studien* 78 (2009): 185-205.

54. As tropes, within Classical Trope Theory, are traditionally taken to be entities that do

titatively and qualitatively ideologically (which is the characteristic of a theory that postulates the fewest number and kinds of theoretical primitives), as it includes the fewest number of theoretical primitives needed in defining God's nature, as it is clear in defining each of God's attributes in Trope-Theoretic Theism as featured in Table 1.

Table 1. Divine Attributes (Aspects).

Attribute (Aspect)	**Definition**
Power	x has the aspect of maximal power $=_{df}$ x is able to cause any event E that it is logically possible that it could cause, and there is no E that it cannot bring about due to a lack of power.
Intentionality	x has the aspect of intentionality $=_{df}$ x is an entity that can perform intentional basic and non-basic actions.
Knowledge	x has the aspect of maximal knowledge $=_{df}$ x knows of all true propositions that they are true.
Freedom	x has the aspect of maximal freedom $=_{df}$ x does not have any non-rational causal influence determining their choices.
Goodness	*x* has the aspect of maximal goodness $=_{df}$ x performs the best action/kind of action, if there is one; many good actions; and no bad actions.
Eternality	*x* has the aspect of eternality $=_{df}$ x exists without beginning and without end.

In defining the attributes (aspects) of God, one is not required to use any primitive terms. Trope-Theoretic Theism is thus very simple by positing a single fundamental entity, with zero properties and kinds, and zero primitive expressions needed to define this entity. Lastly, for the virtue of unification, Trope-Theoretic Theism exemplifies this virtue, as the postulation of the existence of a single maximal power trope, God, offers a comprehensive framework that can explain a wide range of phenomena, as God has the power to bring about any feature that we posit within reality, and thus the postulation of his existence is able to bring these disparate features—whatever they may be—under a single unifying system. Trope-Theoretic Theism is thus a coherent theory that minimises theoretical commitments and has the potential to unify all of the theoretical postulations that are presented.

not instantiate kinds (but, together, can actually act as a kind for objects); for this see the work of Anthony Fisher, "Instantiation in Trope Theory," *American Philosophical Quarterly* 55, no. 2 (2018): 153-164.

4.2 Internal Assessment of Alternative Metaphysical Theories

In continuing our internal assessment of the range of Foundationalist theories on offer, let's turn our attention to the first alternative metaphysical theory to Trope-Theoretic Theism, Monistic Substantivalism (or MS for short), which was proposed by Schaffer.[55] MS identifies the Cosmos as the sole fundamental entity, with material objects being conceived of as spatio-temporal regions of the Cosmos and as proper parts of it. In addition to this, this theory can also be taken to be governed by the fundamentality principles of, first, 'Priority Monism', which states that the whole is ontologically prior to its parts, and, second, the 'Tiling Constraint', which asserts that the entirety of the Cosmos is accounted for by fundamental entities without overlap. Now, in our internal assessment of this theory, we can see that MS faces issues with internal consistency stemming from the inherent tension between identifying material objects with distinct spatio-temporal regions and the overarching view of the Cosmos as an undifferentiated whole. This dichotomy between the need for distinctiveness among material objects, each associated with a unique space-time region, and the principle of the Cosmos as a singular, unified entity, undermines the theory's ability to coherently describe the nature of material objects and their relation to the Cosmos. Furthermore, MS encounters challenges in maintaining internal coherence, as its simplistic identification of material objects with space-time regions fails to adequately account for the diverse and dynamic nature of physical phenomena. The theory struggles to reconcile the observed complexity of material reality, such as emergent properties of complex systems, quantum behaviour of particles, and relational dynamics between objects, with its reductionist premise that equates material objects solely with their space-time regions. Moreover, MS lacks universal coherence due to its incompatibility with important research programmes within the field of contemporary theoretical physics. Certain promising approaches in quantum gravity, such as loop quantum gravity and string theory, challenge the fundamentality of space-time, which stands in stark contrast to MS's commitment to a fundamental space-time as the core structure of reality.[56] This discrepancy puts

55. Jonathan Schaffer, "Spacetime the One Substance," *Philosophical Studies* 145, no. 1 (2009): 131-148.

56. Baptiste Le Bihan, "Priority Monism Beyond Spacetime," *Metaphysica* 19 (2018): 95-111, identifies this issue in the context of Priority Monism, which applies to this view, given that Priority Monism is an integral principle governing MS.

MS at risk of being empirically refuted by forthcoming developments in physics, thus undermining its universal coherence. In terms of simplicity, MS burdens one with a high number of ontological and ideological commitments, rendering it a complex theory. While MS postulates the existence of a single fundamental concrete object, the Cosmos, it assumes a two-category ontology of substance and attribute (or tropes), where the Cosmos instantiates various universals or is constituted by numerous tropes. This ontological framework saddles the proponent of MS with the issues inherent in such an ontology, such as Bradley's Regress. Additionally, as the Cosmos is conceived as a space-time manifold with material objects as its proper parts in the form of space-time regions, the properties of these material objects are 'pinned' onto the Cosmos itself, resulting in the Cosmos instantiating a nearly infinite number of properties. Closely related to the above conclusion is MS's lack of unification, which can be attributed to several factors. The theory's insistence on conceiving all objects as merely regions of space-time limits its capacity to explain the diverse range of properties and characteristics that objects possess. While MS might be able to explain the existence of objects in spatial and temporal terms, it struggles to capture the wide variety of colours, textures, weights, and other properties exhibited by these objects. Furthermore, MS's approach to space-time may conflict with certain interpretations of quantum mechanics, such as quantum entanglement, where particles remain interconnected regardless of spatial distance. This disconnect suggests that the theory is unable to unify our understanding of classical and quantum phenomena under its framework.The second alternative theory, Pure Stuff Theory (or PST for short), proposed by Ned Markosian,[57] posits the existence of non-spatio-temporal, unchanging, featureless 'stuff' as the fundamental substance constituting all objects and properties. In addition to this, this theory can also be taken to be governed by the ontological principles of, first, 'Unrestricted Fusions for Stuff', which states that for any portions of physical stuff, they have a fusion, and, second, the 'Doctrine of Wholly Arbitrary Portions', which asserts that for every material object and any sub-region within the space it occupies, there exists a precise portion of that object's matter that fills the sub-region exactly. Now, in our internal assessment of this theory, we can see that PST grapples with significant challenges concerning its internal consistency,

57. Ned Markosian, "Simples, Stuff, and Simple People," *The Monist* 87, no. 3 (2004): 405-428.

stemming from the conceptual contradiction inherent in the claim that non-spatio-temporal, featureless 'stuff' constitutes all spatio-temporal objects. The theory fails to provide a coherent explanation for the transition from non-spatio-temporal 'stuff' to a spatio-temporal reality, leading to a fundamental inconsistency in its foundational claims. Moreover, PST encounters difficulties in maintaining internal coherence due to its reliance on the primitive, unanalysed concepts of 'stuff' and the 'constitution' relation without adequately explicating how these concepts interact to form the basis of all physical reality. The theory's failure to provide a coherent framework for understanding the relationship between its fundamental components undermines its internal coherence, leaving critical aspects of its ontology unexplained and conceptually disconnected. Furthermore, PST struggles with universal coherence as it fails to align with neighbouring theories, particularly those in physics and ontology that describe the universe as spatio-temporal and composed of entities with distinct properties. The theory's foundation on non-spatio-temporal, featureless 'stuff' as the primary constituent of reality diverges significantly from the empirical findings and theoretical frameworks of contemporary science, which rely on spatio-temporal dimensions and differentiated properties to explain physical phenomena, such as the behaviour of particles in quantum mechanics, where entities are characterized by distinct properties like mass, charge, and spin within a spatio-temporal framework. This disconnect from established scientific and philosophical understandings of the world indicates a lack of universal coherence, limiting PST's explanatory power and applicability. For simplicity, PST necessitates substantial ontological and ideological commitments, rendering it an overly complex theory. Although PST posits a single fundamental entity, the notion of 'Unrestricted Fusion' and 'Wholly Arbitrary Portions' entails the existence of an infinitely varied set of objects, each differing from the other, thus reducing its ontological simplicity. Moreover, the theory's principles demand the understanding and application of unique, undefined relations, significantly increasing its quantitative and qualitative ideological complexity. The assertion of a non-spatio-temporal, unchanging, and featureless fundamental entity involves significant theoretical primitives that do not fit comfortably within the current understanding of physical matter, further contributing to PST's lack of simplicity and maximisation of theoretical commitments. PST also appears to struggle with the virtue of unification, as its framework is difficult to reconcile with other theories or beliefs. The theory's lack of alignment with physicalism, an established belief positing that everything

is physical or depends on the physical, complicates its unifying role and hinders its ability to integrate or cohere with a significant part of one's scientific understanding of the world. Furthermore, PST faces challenges in accounting for the vast diversity of phenomena observed in the empirical world, as it remains unclear how non-spatio-temporal and unchanging 'stuff' could give rise to the wide variety of changing, spatio-temporal entities encountered in reality. The concept of 'stuff' as featureless, yet the source of all features, makes it difficult for the theory to account for the plethora of distinctive characteristics that define different entities, thus failing to unify the understanding of features and properties under a single theoretical framework.

The third alternative theory, Mereological Bundle Theory (or MBT for short), proposed by LA Paul,[58] posits a plurality of qualitative properties as fundamental entities, with all other entities being composed of these properties. In addition to this, this theory can also be taken to be governed by the mereological principles of, first, 'Mereological Axioms', which state that proper qualitative parthood is irreflexive, asymmetric, and transitive, and that Weak Supplementation holds—such that if an individual has a proper qualitative part, it has at least one other proper qualitative part. And, the second principle is that of 'Priority Pluralism', which asserts that there exist many fundamental entities, which are the ontologically prior proper parts of the Cosmos and all other actual concrete objects. Now, in our internal assessment of this theory, we can see that MBT faces issues of internal consistency regarding the nature of properties. MBT defines properties as both fundamental and simple (as these properties are not further constituted by anything), yet simultaneously asserts that they are inherently capable of complex interactions and combinations. This inconsistency is particularly evident when considering the theory's application to properties that resist straightforward compositional relations, such as quantum properties. MBT does not adequately address how properties with fundamentally non-combinatorial characteristics participate in mereological fusions to form complex objects, thus challenging the theory's internal consistency. Furthermore, MBT encounters difficulties in maintaining internal coherence when explaining object differentiation without violating the principle of the Indiscernibility of Identicals. According to this principle, if two entities share all the same properties, they are considered

58. L.A. Paul, "A One Category Ontology," in *Being, Freedom and Method. Themes from the Philosophy of Peter van Inwagen*, ed. John A. Keller (Oxford: Oxford University Press, 2017).

identical. However, MBT's framework, which relies on properties as the sole constituents of objects, implies that any two objects sharing the exact set of properties should be indistinguishable. This leads to a contradiction, as MBT allows for the mereological composition of properties to yield distinct objects, even when those objects are composed of a similar set of properties. The theory struggles to reconcile its foundational claim that properties and their compositions define objects with the logical implications of the Indiscernibility of Identicals, thereby undermining its internal coherence. MBT also faces challenges concerning its universal coherence, particularly in relation to its correspondence with certain areas of contemporary physics. The theory posits that objects are mereologically composed of properties without an underlying substrate, which stands in contrast to prevailing views in physics. In quantum physics and general relativity, particles, fields, and space-time are considered fundamental entities that possess properties, rather than being constituted by properties themselves. This discrepancy between MBT's approach and the empirical observations of objects' behaviours and interactions in the physical world undermines the theory's universal coherence. Although MBT exemplifies the virtue of simplicity in part, it also posits a high level of ontological and ideological commitments, rendering it a complex theory. Priority Pluralism, which asserts the existence of multiple fundamental entities, leads to an ontological commitment to a vast number of entities. Moreover, MBT introduces a relatively complex notion of properties not tied to any substratum or underlying entity, which departs significantly from more standard views where properties are features or qualities of substances. This complexity in MBT's fundamental theoretical primitives challenges its qualitative simplicity. Lastly, MBT can be seen as lacking in unification due to its focus on properties as the fundamental entities, leading to a potential over-reliance on properties to explain various phenomena. The theory struggles to account for phenomena that seem to require substrata, such as the persistence of objects over time, the interactions between objects, or the distinct identity of objects in space. Additionally, MBT may have difficulty providing a unified account of phenomena that involve more than just properties, such as causal relations or intentional relations involved in cognition or perception. This limitation in the theory's unificatory power relative to its theoretical content further undermines its overall coherence and explanatory capacity.

The fourth alternative theory, Extended Simples Theory (or EST for short), defended by the likes of Kris McDaniel and Peter Simons,[59] posits the existence of material objects with no proper parts yet spatially extended, which are termed 'extended simples', and serve as the fundamental entities within reality. In addition to this, this theory can also be taken to be governed by the geometrical principle termed the 'Extended Simples Principle', which states that every fundamental physical entity (simple) occupies an extended region—known as its locus, without having any physical proper parts. Now, in our internal assessment of this theory, we can see that EST faces a fundamental paradox concerning the nature of its entities, which leads to issues with internal consistency. EST posits the existence of entities that are spatially extended, occupying regions of space or space-time, yet are simultaneously characterised by their indivisible nature, lacking any proper parts. This paradoxical situation, where entities are both extended and indivisible, raises questions about how such entities can maintain a consistent identity across different spatial locations without implying a form of internal differentiation. The theory struggles to reconcile the notion of spatial extension, which suggests the potential for variation or differentiation within an occupied space, with the concept of fundamental indivisibility. Furthermore, EST encounters difficulties in maintaining internal coherence when explaining how an entity can be fundamentally indivisible and yet exhibit spatial extension and shape due to external relations. The theory relies on an extrinsic theory of shape to account for the spatial characteristics of extended simples, but it must ensure that this external framework does not implicitly contradict the core assertion of simplicity by introducing complexity through assumptions about the nature of space-time and its interaction with simples. This delicate balance between maintaining the simplicity of extended simples and accounting for their spatial characteristics through extrinsic relations challenges the internal coherence of EST. EST also faces challenges concerning its universal coherence, particularly in relation to its correspondence with certain areas of contemporary physics. The theory's implications for the continuity of space and the behaviour of extended simples within electromagnetic and gravitational fields appear to be at odds with the predictions and observations of field interactions that are foundational to our understanding of physics. If extended simples cannot have

59. Kris McDaniel, "Extended Simples," *Philosophical Studies* 133 (2007): 131-141; Peter Simons, "Extended Simples," The Monist 87, no. 3 (2004): 371-384.

distributed properties like mass and charge due to their indivisibility, it becomes difficult to reconcile their behaviour with the established models of field interactions, which rely on the compositional structure of entities to explain interaction dynamics. Although EST proposes a qualitatively simple ontology by positing the existence of spatially extended simples as the fundamental entities in reality, the theory potentially requires a vast number of these entities to account for the diversity and complexity of the world. This quantitative multiplication of fundamental entities goes against the notion of ontological simplicity. Moreover, EST's ideological commitments are substantial, as it requires the acceptance of complex theoretical primitives to explain spatial occupation without parts, such as the locus of simples and the non-segmented nature of simples. The theory also necessitates the adoption of the Extended Simples Principle, which significantly deviates from the widely accepted Geometrical Composition Principle (i.e., any (spatially) extended object has parts that correspond to the parts of the region that it occupies). These ideological commitments render EST a theoretically complex theory. Lastly, EST struggles with the virtue of unification, as the concept of an 'extended simple' is highly counterintuitive and seems at odds with many everyday observations and understandings about the physical world. The theory's proposal that spatially extended objects are indivisible into smaller parts contradicts the common conception of divisibility. Furthermore, EST's difficulties in explaining internal variation within an extended simple hinder its ability to coherently account for the diverse properties and characteristics of objects. The theory's tension with well-established scientific theories, such as quantum mechanics and atomic theory, which assume the divisibility of matter, further undermines its unificatory power and its capacity to provide a unified explanation of reality under a single explanatory framework.

The last alternative theory, Priority-Based Structural Realism (or PBSR for short), proposed by individuals such as Kerry McKenzie,[60] posits the existence of structure and relations as the fundamental entities within reality, with all other entities being grounded in and dependent on them. In addition to this, this theory can also be taken to be governed by the relational principles of, first, 'Fundamental Relations', which assert that rela-

60. Kerry McKenzie, "Priority and Particle Physics: Ontic Structural Realism as a Fundamentality Thesis," *The British Journal for the Philosophy of Science* 65 (2014): 353-380; "Structuralism in the Idiom of Determination," *The British Journal for the Philosophy of Science* 71 (2020): 497-522.

tions are ontologically fundamental and that truthmakers for relational judgements are relations, and, second, 'Relational Identity', which states that substantial entities exist and have their identity through their relationships. Now, in our internal assessment of this theory, we can see that PBSR encounters circularity issues in maintaining the primacy of structures and relations over objects. PBSR attempts to ground the existence and identity of objects in the very structures and relations that these objects are supposed to constitute, creating a circular dependence that undermines the theory's internal consistency. The inconsistency arises when trying to maintain that structures and relations have primacy over objects while also acknowledging that objects are not entirely eliminable from the ontological framework. If structures and relations are fundamentally constitutive of reality, their definition and identity would seemingly depend on the objects they relate to or structure, leading to a problematic circularity. Furthermore, PBSR encounters difficulties in maintaining internal coherence when accounting for the mechanisms by which dependent entities emerge from or are constituted by the more fundamental structures and relations. The theory does not provide a clear and coherent explanatory mechanism for the transition from abstract structures and relations to concrete entities with specific properties. Without such a mechanism, PBSR risks resorting to ad hoc explanations for the existence and characteristics of entities, ultimately undermining its claim to provide a cohesive and comprehensive account of reality's ontological structure. Moreover, PBSR struggles to coherently explain how entities, whilst ontologically secondary, retain their distinctiveness and causal efficacy within a structure-prioritised ontology. PBSR also faces challenges concerning its universal coherence, particularly when aligning with scientific theories that emphasise entities with intrinsic properties, such as Quantum Field Theory and the Standard Model of particle physics. These theories foundationalise entities like fields and particles, attributing to them essential properties that are crucial for their explanatory frameworks. PBSR, with its focus on structures and relations as fundamentally constitutive of reality, struggles to account for the empirical adequacy of these properties as intrinsic to entities rather than emergent from relational structures. The theory's relational ontology is ultimately incompatible with the entity-centric models prevalent in science, thus lacking universal coherence. Although PBSR possesses qualitative simplicity by reducing the fundamental ontological category to structure and relations, it introduces complexity in other ways. The actual number of structures and relations could be vast, given the complexity and diversity of the

universe, compromising the theory's quantitative ontological simplicity. Moreover, PBSR relies on multiple primitives, such as the relation of dependence and grounding, which are often left undefined, introducing further ideological complexity. The theory thus presents a high degree of ontological and ideological theoretical commitments, affecting its overall simplicity. Lastly, PBSR struggles to exemplify the virtue of unification for several reasons. The theory's central premise, that structures and relations are ontologically prior to relata, contradicts many everyday experiences and established scientific theories that consider objects or entities as primary and relations or structures as secondary or derived. This fundamental disagreement makes it challenging to unify our understanding of reality under PBSR's explanatory framework. Furthermore, PBSR's commitment to structures and relations as the foundational ontological categories creates difficulties in explaining a wide range of phenomena where individual entities seem to play a crucial role, undermining the theory's explanatory power and unificatory ability. The idea of structures and relations being ontologically primary is a radical departure from conventional ontology, creating difficulties in integrating this view with other aspects of our understanding of the world, particularly scientific theories that posit entities as fundamental.

So now that we have completed our internal assessment, we can conclude that Trope-Theoretic Theism emerges as the most 'internally lovely' theory amongst all the alternatives within the framework of Metaphysical Foundationalism (where a theory is 'internally' lovely if it passes our internal assessment by its exemplification of the virtues at the centre of that assessment—namely, that of the coherential and aestehic virtues). This is due to its possession of all of the virtues of the the coherential and aesthetic virtues classes. In contrast, the other theories examined—including Monistic Substantivalism, Pure Stuff Theory, Mereological Bundle Theory, Extended Simples Theory, and Priority-Based Structural Realism—lack the same level of possession of these virtues. We must now turn our attention to an external assessment of these theories in light of the existence of the relational element of reality, which is that of grounding—and thus this assessment will enable one to infer which specific theory is (in addition to its internal loveliness) the most 'externally' lovely theory, given this specific data (where a theory is 'externally' lovely, relative to some data, if it passes our external assessment by its exemplification of the virtues at the centre of that assessment—namely, that of the evidential virtues). As it will be argued that each of the theories outside of Trope Theoretic Theism is evidentially inaccurate with regards

to a reality that includes within it relations of grounding, we will be able to forgo analysing their causal adequacy and evidential depth—as if these theories, and their principles, cannot fit with the first and most basic evidential virtue, then they would not be able to do so for the others as well. So, we will analyse Trope Theoretic Theism with regard to *all* of the evidential virtues but will only focus on the first evidential virtue—that of evidential accuracy—for the rest of the virtues.

5. Second Stage Analysis: External Assessment

5.1 External Assessment of Trope Theoretic Theism

In doing this, we see first that Trope-Theoretic Theism exhibits remarkable evidential accuracy in relation to a reality that includes grounding relations. According to this perspective, God, as the maximal power trope, serves as the ultimate foundation for all entities, with this role extending beyond the initial act of creation to the continuous sustaining of all things. This notion harmonises seamlessly with the hierarchical essence of grounding, wherein every entity and event, at any given moment, ultimately depends on God for its existence and characteristics. This is that, God's maximal power means that every aspect of reality is constantly and actively sustained by his power. This unceasing dependence mirrors precisely what one would anticipate observing in a reality structured by grounding relations. Furthermore, within this framework, God's maximal knowledge comprises a comprehensive grasp of every dependence and determination within reality, thus encompassing not only the essence of every entity but also the complex network of relationships that define reality's structure. Thus, through the establishment of grounding relations, God is able to sustain and govern the universe in a coherent and orderly manner, ensuring that all elements function together as a harmonious system. Moreover, the axiological principles governing Trope-Theoretic Theism demonstrate remarkable causal adequacy and explanatory depth. First, the Principle of Goodness implies that grounding relations are inherently valuable because they underpin the very fabric of reality, establishing a hierarchical relationship between entities and making the world intelligible. A fully informed, properly functioning valuer would appreciate the grounding relation for its own sake, recognising the intrinsic goodness it possesses due to its role in shaping the structure of reality. God would thus have motivation for bringing about this relation based on the inherent

value that it has and the value that it enables the reality that it orders to have as well. Second, the Diffusiveness Principle indicates that grounding relations serve as conduits for the dissemination of divine goodness throughout reality, allowing the properties and effects of more fundamental entities to be manifested in less fundamental ones. By connecting more fundamental entities to less fundamental ones, grounding relations create a network through which the goodness inherent in the more fundamental entities can be propagated to less fundamental entities, thus disseminating goodness throughout reality. Given that God, as a maximally good being, is the ultimate source of all goodness, the grounding relation acts as the 'conduit' through which divine goodness, originating from God as the absolutely fundamental entity, can diffuse to all other entities. Third, the Plenitude Principle suggests that grounding relations contribute to the actualisation of all possibilities, facilitating the emergence of less fundamental entities from more fundamental ones, thereby creating a multitude of possible entities and enabling a rich diversity of existence. This connects to the idea that God's creation is not limited or selective but rather exhaustive of all possibilities. The grounding relation thus serves as a means through which God's perfect goodness actualises all potentialities, making possible a wide variety and multitude of entities. In God's grand design of reality, the grounding relation is a key mechanism that enables the richness, variety, and plenitude of reality to unfold, aligning perfectly with the notion that God's creation is exhaustive of all possibilities. Thus, based on the goodness of this creative act, as expressed by its fit with the axiological principles, which thus provides motivation for God (who is a maximally good being) to perform this action, one can thus expect that if there is a God, then he would bring about the existence of a reality that includes relations of grounding within it.

5.2 External Assessment of Alternative Metaphysical Theories

Now, let's turn our attention to our alternative metaphysical theories, and so for our first alternative, MS, we can see that this theory, and its governing principles, are evidentially inaccurate with regards to a reality that includes grounding relations, as even though MS, and its governing principle of Priority Monism, takes it to be the case that grounding plays an important role in this metaphysical thesis, what is, in fact, inbuilt into MS is that of that the Cosmos being the sole fundamental entity that also has other existing concrete objects as non-fundamental proper parts of it. Thus, *contra* the assumption that is regularly made concerning MS, what

is, in fact, entailed by this thesis is that of the instantiation of a relation of proper parthood—rather than that of a relation of grounding—which then connects the fundamental entities (i.e., the Cosmos) to the non-fundamental entities (i.e., the concrete objects) within the layered structure of reality. Now, strictly speaking, proper parthood is not identical to grounding—as both relations have different formal properties, specifically, that of proper parthood being a transitive relation and grounding failing to be transitive and instead being a contrastive relation—which was a featured denied by Schaffer himself![61] More fully, proper parthood and grounding are distinct concepts in metaphysics, especially when viewed through the lenses of transitivity and contrastivity. As proper parthood is inherently transitive: if x is a proper part of y and y is a proper part of z, then x is a proper part of y. This straightforward transitivity is central to understanding how components relate to each other and to the wholes they form. Grounding, on the other hand, even though in its basic iteration it appears to be transitive, as noted previously, Schaffer has introduced a more nuanced perspective—such that the relationships between more and less fundamental entities aren't always straightforwardly transitive. That is, unlike proper parthood, grounding is not actually transitive but is contrastive. The idea is that grounding depends on specific contexts or contrasts— so the grounding of one entity by another can depend on particular alternatives being considered. Thus, this contrastive nature of grounding shows that its transitivity is not as straightforward as in proper parthood, which highlights the non-identity of these relations, and the fundamental difference in how these two relationships structure reality. Given this, one thus needs an additional reason to identify grounding with proper parthood, and thus, as it stands, the relation that is inbuilt into the thesis of MS is not that of grounding. And given that one does not need a relation of proper parthood and a relation of grounding to connect the less fundamental entities to the more fundamental entities, MS appears to lack the resources to explain the existence of grounding. This is to say that MS, and the principles that govern it, fail to explain the existence of grounding relations—which is to say that they are evidentially inaccurate with regards to it.

For the second alternative theory, PST, we can see that this theory is also evidentially inaccurate with regards to a reality that includes grounding relations, as grounding is conceived of as being a systematic

61. Schaffer, "Grounding, Transitivity and Contrasitivity".

and structured dependency relation where non-fundamental entities depend on more fundamental entities in a hierarchical fashion. However, PST, grounded on the principles of the Unrestricted Fusions for Stuff and the Doctrine of Wholly Arbitrary Portions, postulates an unchanging and featureless fundamental substance. And thus it is indeed hard to understand how this can give rise to a variety of different non-fundamental entities and their respective properties. That is, there is a lack of detail on how this derivation process occurs, which leaves the grounding relation in such a monist framework largely unexplained. More specifically, the grounding relation is meant to be a 'vertical' relation that explains how non-fundamental entities are grounded in more fundamental ones. In PST, however, stuff is in such a way that it's devoid of any features whatsoever, which raises questions about how it can ground anything. That is, if stuff lacks any properties or structure, it's unclear how it could ground diverse non-fundamental entities with various properties and relations. Thus, PST, and the principles that govern it, fail to explain the existence of grounding relations—which is to say that they are evidentially inaccurate with regards to it.

The third alternative, MBT, and the principles that govern it, also fall short in evidential accuracy relative to a reality that includes grounding relations, as while MBT, and the principle of Priority Pluralism, may seem to agree with the idea of grounding relations, it stumbles when defining the connection between these entities and derivative entities, as with MS, this relation again appears to be one of a proper parthood relation than one of grounding. Moreover, as MBT conceives of objects as mere bundles of properties that somehow exist coherently together, and thus does not posit any substance underlying the properties that compose objects, this theory appears to offer no conceptual place for the grounding relation, which ordinarily operates in a context where entities exist with varying degrees of fundamentality. That is, without an underlying substance (or substratum) to ground properties, it's unclear how grounding could actually work within this framework. As each property would be equi-fundamental (i.e., as fundamental as one another), there would thus be no reason for one property to be dependent on another. Moreover, if properties themselves are the fundamental constituents of reality, as MBT asserts, it's difficult to see how a given bundle of properties could be said to ground another bundle of properties— as each bundle would be independent, thus making the grounding relationship difficult, if not impossible, to maintain. Thus, MBT, and the principles that govern it, fail to

explain the existence of grounding relations—which is to say that they are evidentially inaccurate with regards to it.

Now, EST, the fourth alternative, is similarly evidentially inaccurate with regard to a reality that includes grounding relations. As this theory takes certain entities to be simples, having no parts and existing without internal complexity or structure, and thus it is clear that these types of entities lack the internal structure necessary for grounding relations to hold between their various components. This that, the grounding relation depends on the notion of more and less fundamental entities, where the more fundamental entities ground the less fundamental entities. However, as simples have no internal structure or complexity, it is difficult to understand how these entities could provide a basis for grounding relations. As such, one cannot say that one part of an extended simple is grounded in another part since extended simples have no parts. Therefore, the concept of grounding seems to have no meaningful application within this theory. Thus, EST, and the principle that governs it, fail to explain the existence of grounding relations—which is to say that they are evidentially inaccurate with regards to it.

Finally, for our last alternative theory, PBSR, we can see that this theory, and the principles that govern the theory, are also evidentially inaccurate with regards to a reality that includes grounding relations, as PBSR, and the principles of Fundamental Relations and Relational Identity is a theoretical approach that places emphasis on structures over individual entities. In this view, entities derive their existence from the structures in which they are embedded. The structures are the primary reality, and the entities are secondary. This theory is presented with a challenge in explaining the existence of grounding relations, as PBSR, given its emphasis on the ontological primacy of structure and relations, may struggle to fully account for the nature and implications of grounding relations that manifest not between structural properties but between discrete entities. Moreover, the directed-dependence relation at the heart of grounding requires a recognition of individual entities and their inherent properties, something that may not be fully captured under PBSR's relational and structural focus. Furthermore, whilst PBSR considers relations and structure to be fundamental, it might lack a comprehensive account of how these fundamental structures and relations themselves give rise to or ground less fundamental entities—which is a key aspect of the notion of grounding. Therefore, PBSR finds it challenging to explain the specific concept of dependence and determination expressed by the notion of grounding. Thus, PBSR, and the principles that govern it, fail to explain

the existence of grounding relations—which is to say that they are evidentially inaccurate with regards to it.

On the basis of our internal and external assessment, Trope-Theoretic Theism, is the most internally, and now, 'externally' lovely theory, amongst the various theories within the Metaphysical Foundationalist framework. And thus, in taking all of these things into account, Trope-Theoretic Theism emerges as the best inference from Pool B, by it being a theory that is coherent, minimises theoretical commitments, maximises explanatory power regarding grounding, and unifies all theoretic postulations. And thus this specific theory should be taken as the best (loveliest (and thus likeliest)) explanation of the existence and/or instantiation of relations of grounding in the layered structure of reality. One thus has a good abductive reason to affirm Theism, the specific claim that there is a God, identified as a maximal power trope.

Conclusion

In conclusion, our analysis of six leading metaphysical theories reveals Trope-Theoretic Theism as the loveliest explanation for the existence and/or instantiation of relations of grounding within reality. This theory uniquely accommodates the hierarchical nature of grounding and motivates its creation through axiological principles of goodness, diffusiveness, and plenitude. Whilst other theories offer distinct perspectives, they face significant challenges in accounting for grounding relations, either failing to explain their existence or struggling to integrate them coherently within their frameworks. Thus, Trope-Theoretic Theism emerges as the best inference, demonstrating coherence, minimising theoretical commitments, maximising explanatory power regarding grounding, and unifying all theoretical postulations. This outcome not only affirms the veracity of Theism but also lends support to the position that religious belief can be supported by rigorous philosophical reasoning—with there being a potential for productive dialogue between religion and contemporary metaphysics, as these disciplines can work together to ultimately deepen our understanding of the nature and structure of fundamental reality.

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