Metaphysics, Natural Science and Theological Claims: E. J. Lowe's Approach

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Abstract: In this paper, I aim to discuss E. J. Lowe's view of the synergy between metaphysics and natural science. In doing so, I will extend Lowe's synergistic model to develop a realist account of theological claims thereby responding to Byrne's strong form of eliminativism and agnosticism about theological claims. The paper is divided up as follows. In section 1, I will discuss Lowe's view of metaphysics. In section 2, I will explain how Lowe thinks metaphysics and natural science are related. In section 3, I will respond to objections against Lowe's conception of metaphysics. In section 4, I will discuss the implications of Lowe's conception of metaphysics for a realist account of theological claims. In section 5, I will conclude this paper by claiming that there are excellent reasons to extend the synergy between metaphysics and natural science to that of theology as well.

Keywords: Metaphysics, Natural Science, Theological Claims, Possibility, E. J. Lowe

Introduction

Philosophical controversies concerning the relationship between traditional metaphysics and natural science revolve around two main questions. First, there is the question of what metaphysical inquiry and its method(s) amount to. Second, there is the question of what scientific inquiry and its method(s) amount to. Let us call these questions the *subject matter M* and the *subject matter S* respectively. The *subject matter M* focuses on investigating the fundamental structure of ultimate reality via an a priori (non–empirical) means—rooted in reason. On the other hand, the *subject matter S* focuses on investigating the nature of reality via an a posteriori (empirical) means—which strictly requires experimental verification. In light of such considerations, it has been said that a clear–cut bifurcation can be drawn between the *subject matter M* and the *subject matter S*. However, establishing any such demarcation line between the *subject matter M* and the *subject matter S* proves to be easier said than done. As we shall see, the difficulty deepens even further if one elevates the epistemic credentials of the *subject matter M* over that of the *subject matter S* and vice versa. In any case,

philosophers do not speak in one voice on this matter. Here we can think of two major representative positions. To see this, let us consider first the following six claims:

1. The subject matter *M* and the subject matter *S* are independent in their own right.
2. The subject matter *M* and the subject matter *S* are individually incomplete.
3. The subject matter *M* and the subject matter *S* are interdependent.
4. The subject matter *M* is purely speculative.
5. The subject matter *M* must operate under the authority of the subject matter *S*.
6. The subject matter *M* is empirically unverifiable.

Collectively let's call (1)–(3) the *Integrationist Thesis* and (4)–(6) the *Strict Empiricist Thesis* respectively. The *Integrationist Thesis* has three layers, namely: (i) independence, (ii) incompleteness, and (iii) interdependence. Given layer (i), the *subject matter M* and the *subject matter S* are said to be independent, that is, each is an autonomously self–guiding mode of inquiry into the nature of reality. But the question remains: how are we supposed to understand the independence invoked in (i)? Traditionally, a highly impactful answer comes from Aristotle. In *Metaphysics* (Γ.1 1003a21), Aristotle describes how 'first philosophy' (i.e., metaphysics) is independent of other disciplines.[1] Aristotle claims that, unlike metaphysics, the special disciplines (e.g., biology, chemistry, neuroscience, psychology) have a narrow area of focus on investigating the nature of reality. For example, biology studies living things. Chemistry studies, among other things, chemical elements, their composition, and properties. Neuroscience studies the brain's organization and its function. But philosophers of science debate whether physics is fundamental to all other special disciplines or sciences (see Laydman and Ross, 2007: 38ff; cf. Rosenberg 2012: Ch. 6). But even if physics turns out to be fundamental or basic, still it has a narrow area of focus, say matter and energy.

But for Aristotle, metaphysics is a universal science that studies *being qua being*.[2] As Cohen and Reeve remark, Aristotle's description of the study of 'being qua being' does not imply as if there is a single subject matter—being qua being—which is under investigation. Instead, the phrase 'being qua being' involves three things: (A) a study, (B) a subject matter (being), and (C) a manner in which the subject matter is studied (qua being).[3] As Cohen and Reeve further point out, Aristotle's study does not focus on some obscure subject matter identified as 'being qua being'. Rather it is a study of being taken quite in general. That is, metaphysics studies beings, in so far as they are beings (*Ibid*). If we follow Aristotle's lead here, then the *subject matter M* can neither be

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[1] For more details, see *Aristotle Metaphysics.*, trans., by C. D. C. Reeve (2016).

[2] Here the term 'qua' comes from Latin and it means 'in so far as' or 'under the aspect'. In this context, 'being' pertains to the subject matter of ontology which studies *kinds of beings* such as concrete entities and abstract as well as universals and particulars. Ontology also studies *modes of being* which has to do with the *existence* of entities (Honderich, 1995, 82).

[3] Cohen and Reeve (2020, section 1).

identified with nor can it be reduced to the *subject matter S*. Similarly, the *subject matter S* can neither be identified with nor can it be reduced to the *subject matter M*. What this means is that metaphysics and natural science cannot hijack each other's independence. If this is true, then in their own particular ways, metaphysics and natural science can be said to make distinctive contributions to our knowledge of the nature of reality. However, neither domain can produce a complete knowledge of reality. That is, each of these domains gives us only an incomplete or partial knowledge of reality. This is what (ii) implies above—the second layer of the *Integrationist Thesis*. But what should be done to tackle the incompleteness problem implied by (ii)? The answer is proposed straightforwardly in (iii)—the third layer of the *Integrationist Thesis*. What is being proposed here concerns the interdependency between metaphysics and natural science. That is, metaphysics and natural science are not self–sufficient. Hence, they need each other. Given the three layers that make up the *Integrationist Thesis*, it seems a strong case can be made for the importance as well as the necessity of mutual cooperation between the *subject matter M* and the *subject matter S*.

But defenders of the *Strict Empiricist Thesis* consider the marriage between metaphysics and natural science as deeply misguided at best and a non–starter at worst. We can see why this is the case by analyzing the three layers that make up the *Strict Empiricist Thesis*: (a) speculativeness, (b) superiority, and (c) unverifiability. In the case of (a), Immanuel Kant's assessment of the *subject matter M* takes center stage. In his *Critique of Pure Reason* (1996, Avii:5ff; Bxv: 20 and Bxvii: 21–22), Kant claims that human reason plays a key role in helping us tackle fundamental questions about reality. However, Kant claims that human reason has severe limitations and thus, fails to uncover the nature of reality that goes beyond the boundary of experience. In light of this, Kant deems traditional (Aristotelian) metaphysics as a purely speculative discipline that does not afford us access to a mind–independent reality *in and of itself*.[4]

In the case of (b), the *subject matter S* (natural science) is said to enjoy unparalleled epistemic superiority over that of the *subject matter M* (metaphysics). That means that given (b), the *subject matter M* loses its independence in the sense discussed earlier. In this case, the *subject matter M* ends up being either identified with or reduced to the *subject matter S* (see e.g., Quine 1969: Ch. 3; Ladyman and Ross 2007: 1; Ross, Ladyman, and Kincaid, 2013). In the case of (c) the *subject matter M* is said to lack empirical verification. For example, one of the key defenders of logical positivism,[5] A. J. Ayer argues that the principle of verification utilizes certain criteria by which it can be decided if a sentence is meaningful. If a certain claim fails to meet a verification criterion, then it would be deemed as lacking meaning. So, unless metaphysical

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[4] See also Loux and Crisp (2017, 1–9). Cf. Hilary Putnam's and Michael Dummett's anti–realism in Loux and Crisp (2017, Ch. 11).

[5] This is a 20th century movement originated in Vienna, Austria carrying the name 'Vienna Circle'. Its key founders include Rudolph Carnap, Herbert Feigel, Otto Neurath, Moritz Schlick and Friedrich Waisman. Outside the Vienna Circle, defenders of this movement include thinkers such as A. J. Ayer and Ernest Nagel.

statements describe what could be experienced or observable, they have no literal meaning (Ayer 1946). Similarly, Rudolf Carnap dismisses what he calls 'external questions'[6] that lie at the heart of traditional metaphysics as lacking in cognitive content (Carnap 1950, 20–40; see also Leitgeb and Carus 2020, section 1.4; Price 2009). Given the three layers that make up the *Strict Empiricist Thesis*, it seems that the *subject matter M* has no role to play in uncovering the nature of reality. That means that the *subject matter S* wins the day!

Contra the *Strict Empiricist Thesis*, in this paper, I will argue that the independence of the *subject matter M* remains intact and thus, it can enter into two–way communication with the *subject matter S*. Taken this way, metaphysics and natural science are allies as opposed to being foes. I defend the *Integrationist Thesis* within the framework of E. J. Lowe's conception of metaphysics and its relation to natural science. In doing so, my main goal is to extend Lowe's conception of metaphysics to develop a realist account of certain core theological claims. The paper is divided up as follows. In section 1, I will discuss Lowe's view of metaphysics. In section 2, I will explain how Lowe thinks metaphysics and natural science are related. In section 3, I will respond to objections against Lowe's conception of metaphysics. In section 4, I will discuss the implications of Lowe's conception of metaphysics for a realist account of theological claims or discourse. In section 5, I will conclude this paper by claiming that there are excellent reasons to extend the synergy between metaphysics and natural science to that of theology as well.

1. Lowe on Metaphysics and its Possibility

Lowe develops his conception of metaphysics against the backdrop of the *Integrationist Thesis* (see e.g., Lowe 1998, Ch. 1; 2002, Ch. 1; 2006, Chaps. 1– 2 & 8– 10 and 2009, Ch. 1). Recall that one of the central aspects of the *Integrationist Thesis* is the claim that the *subject matter M* and the *subject matter S* each has epistemic independence in the investigation of the nature of reality. For Lowe, metaphysics is the most fundamental or basic form of rational inquiry. Such rational inquiry can be carried out, as Lowe sees it, using distinctive methods and criteria of validation that are unique to metaphysics. Here Lowe's point reinforces the epistemic independence of the *subject matter M*. But what precisely is metaphysics? Lowe does not attempt to define metaphysics. This is because no single definition of metaphysics can be offered to guarantee its reception by different metaphysical systems. For example, as Lowe points out, certain metaphysical systems may recognize the reality of space and causation whilst others deny such things. It is equally problematic, as Lowe claims, to specify the subject matter of metaphysics by coming up with a list of topics that are said to uniquely belong to it. At this point, a question could be asked as to what

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[6] External questions deal with such things as properties, numbers, propositions and classes. For an excellent discussion on Carnap's anti–metaphysical project, see Tuomas E. Tahko, Ch. 3 (Ph.D. Thesis, 2008).

distinguishes metaphysics from other disciplines. For Lowe, this question can be answered by showing how the concerns of the *subject matter M* and the concerns of the *subject matter S* do coincide. That means that in tackling the concerns in question, real progress could only be made if mutual cooperation exists between the two domains. For Lowe, as we shall see, such cooperation is not optional given that all empirical science presupposes metaphysics.

Lowe claims that the conception of metaphysics that is worth exploring is the one that has traditionally been characterized as the *systematic study of the most fundamental structure of reality*. As we have already seen, this conception of metaphysics was introduced by Aristotle. Lowe's own conception of metaphysics emerges out of traditional metaphysics. However, Lowe recognizes that traditional metaphysics faces many skeptics. Lowe claims that Kant called into question the very possibility of traditional metaphysics. It is not a coincidence that Lowe entitled his highly influential 1998 book, *The Possibility of Metaphysics*.[7] This title stands as a direct counter–response to Kant's question, "How is Metaphysics Possible?" (*Critique of Pure Reason*, B.22). Lowe thinks that Kant's question paved the way for serious anti–metaphysical views.[8]

1.1. The Possibility of Metaphysics

Is metaphysics possible? Lowe's answer to this question is enthusiastically affirmative. Lowe believes that reasonable answers can be given for questions we ask regarding the fundamental nature of reality. In making such a claim, Lowe also makes it clear that metaphysical answers in question are more fundamental than the ones attributed to empirical science. Yet Lowe claims that metaphysics all by itself does not tell us what there is. In this case, the role of metaphysics is to tell us what there could be (i.e., possible). Once metaphysics plays its part in telling us what is possible, experience plays its part in telling us which of the metaphysical possibilities in question are true in actuality. Lowe claims that what is actual implies what is possible. Lowe's point here can be expressed counterfactually. That is, if X had not been possible, then X would not have been actual, in the first place. In short, X is actual because X is possible. For Lowe, the experience cannot play its part in determining

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[7] See also Lowe's conception of metaphysics as a science of essence in Carruth, Gibb and Heil (2018, Ch.1). For some important defences of the traditional Aristotelian metaphysics, see Tahko (2013) and Oderberg (1999).

[8] As already pointed out earlier, Kant entirely rejected the Aristotelian realist approach to the *subject matter M*. But before giving his own answer to Kant's question, Lowe assesses four views that challenge traditional realist metaphysics. First, *relativism*. On this view, notions such as objective truth and rationality/reason as mere cultural products. Second, *scientism*. On this view, only empirical sciences tell us about the fundamental nature of reality. Third, *neo–Kantianism*. At the heart of this view, lies the claim that metaphysics is incapable of uncovering facts about the nature of objective reality. Fourth, *semanticism*. On this view, metaphysical questions are said to be resolved based on the theory of meaning. Lowe argues that none of these views render metaphysical inquiry irrelevant or impossible (see for details Lowe 1998, 3–8). For a very informative analysis and critique of Michael Dummett's view on semantical theory, see Loux and Crisp (2017, 310–323).

what is actual if it is not already preceded by a metaphysical delimitation of what is possible. Lowe claims that metaphysics is both possible and necessary as a form of rational human inquiry. Lowe takes metaphysical possibility as an unavoidable prerequisite for actuality. For Lowe, the realm of metaphysical possibility is a genuine one. Such metaphysical possibility, as Lowe argues, must be assumed before experience establishes whether or not the things we investigate are actual. For Lowe, carrying out such a task is not something that should be left only for empirical sciences. This is because, for Lowe, empirical sciences only strive to establish what is the case in actuality — guided by experience. Since metaphysical possibility precedes what could be actual, Lowe argues that empirical sciences inescapably presuppose metaphysics.

But Lowe claims that we should not equate metaphysical possibility with logical possibility. The latter possibility is simply a matter of a proposition or set of propositions respecting the laws of logic. That is, insofar as a given proposition is not contradictory, it can be said to be logically possible. But what lies at the heart of the metaphysical possibility is not following the rules of logic. Rather as Lowe points out, the metaphysical possibility is a possibility of a state of affairs. Philosophers call such possibility *de re* or a real possibility. Taken this way, metaphysical possibility concerns the possibility of real things. For example, Lowe claims that notions such as *a state of affairs*, an *object*, a *property*, a *relation*, an *individual*, a *kind*, a *part*, a *substance, existence, identity, instantiation, possibility, necessity* are first and foremost, ontological not logical notions. For Lowe, such notions concern *being* and its *modes* as opposed to formal properties and logical relations between propositions, as is the case with logic (see Lowe 1998: 10). In Lowe's view, these sorts of metaphysical notions belong to the category of *being*, as Aristotle held. Lowe rejects Kant's position which attributes such metaphysical notions to the categories of *thought*.[9]

1.2. Possibility and Necessity

Since possibility and necessity are interdefinable, Lowe extends this matter to show how metaphysical possibility is related to metaphysical necessity. Such discussion is also related to logical necessity. How is metaphysical necessity related to logical necessity given that the latter is often seen from the point of view of its application to the laws of logic? Here Lowe distinguishes three senses of logical necessity. First, there is *strictly* logical necessary which is said to be true based on only the laws of logic. Second, there is the *narrowly* logically necessary which is said to be true based on the laws of logic along with definitions of non–logical terms. Finally, there is the *broadly*

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[9] Lowe does not assume that the sorts of things mentioned above (e.g., substance) can be established entirely a priori. for Lowe, all that we do a priori is, show what could be the case (i.e., possible). But establishing, say whether or not a substance is actual, requires us to depend on experience. Lowe also makes it clear that 'categories' are not just features rooted in the semantico–syntactic operations of natural language. Whilst recognizing the role of language in our attempt to grasp the fundamental structure of reality, for Lowe, metaphysical truths simply do not grow out of language.

logically necessary which is said to be true in every logically possible world. In such a world, the laws of logic are said to hold up. Lowe claims that the broadly logical necessity directly coincides with metaphysical necessity. In fact, for Lowe, these two necessities can be considered to be identical despite having been described with two different names. In this case, Lowe aligns his view with philosophers such as Alvin Plantinga who also think along the same lines.[10] But how can metaphysical necessity be known, *a priori* or *a posteriori*? For Lowe, metaphysical necessity is not known entirely a priori. This is because such necessity is not grounded in logic and concepts—although logic itself is ultimately grounded in metaphysics. In Lowe's view, metaphysical necessity is grounded in the 'natures of things' (Lowe 1998, 21). For example, to know what, say *water* or H_2O is, a priori reflection alone would not be sufficient. It is equally the case that experience–based investigations do not tell us the complete story about the metaphysical underpinnings of water either (cf. Kripke 1980, 35–38). Here Lowe's view once again shows the centrality of the *Integrationist Thesis* in acknowledging both the independence and interdependence that underlie the *subject matter M* and the *subject matter S*.

2. Lowe on Metaphysical Foundation for Natural Science

Lowe's book–length argument for the centrality of metaphysics for natural science comes from his highly celebrated book entitled, *The Four–Category Ontology: A Metaphysical Foundation for Natural Science*, (2006).

2.1. Progress in Philosophy

One of the distinctive aspects of Lowe's four–category ontology concerns the possibility of making progress in philosophy in general and metaphysics, in particular. Lowe argues that progress in non–empirical disciplines such as mathematics and logic can be and has been made. Likewise, progress is achievable in philosophy despite its being a non–empirical discipline. Making progress in this regard, as Lowe argues, is rooted in the *science of being*. For Lowe, no special science can succeed in addressing its own ontological questions independently of the *science of being*. The reason for this, Lowe argues, is that reality is one and truth is indivisible. Assuming that ontology is an *a priori* science, how can we attain knowledge of reality *in and of itself*? Lowe answers this question by bifurcating the role of ontology into two parts, namely one is entirely *a priori*, and the other blends empirical input. Taken in its *a priori* sense, Lowe claims that ontology focuses on exploring the realm of metaphysical possibility. That is, in Lowe's view, ontology seeks to establish the

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[10] For Plantinga's view on this issue, see his *The Nature of Necessity* (1974). But there are other philosophers who do not embrace such account of metaphysical necessity. See for example, Lowe's discussion of Bob Hale's view (Lowe 1998, 16–21). Lowe illustrates the three versions of logical necessity using the law of contradiction (see Lowe 1998, 14–16).

categories of things that could exist and co–exist to make up a single possible world. Whereas the empirical aspect of ontology focuses on establishing the sorts of things that exist in the actual world. Such a task of ontology requires direct empirical evidence that is informed by most successful scientific theories. Lowe argues that the *a priori* and the empirical aspects of ontology are not independent—the empirical aspect of ontology depends on that of the *a priori*.[11] Although ontological knowledge is not infallible, for Lowe, progress in metaphysics must be *possible* if we are to grasp features of reality. As Lowe sums up:

> Metaphysics can help both to underwrite some of the theories of empirical science and yet also to curb the wilder speculations of scientists and the ambitions of some of them to claim a monopoly of truth and understanding. Metaphysicians cannot afford to ignore developments in scientific theory, but they only promise to render themselves foolish in the eyes of posterity by slavishly accepting current scientific orthodoxy. (Lowe 2009, 7–8).[12]

2.2. The Four Category Ontology

Given his realist conception of ontology, Lowe takes ontological categories as categories of being as opposed to categories of thought. In Lowe's view, categories themselves are neither entities nor do they constitute a distinctive ontological category of the category of *category*. In other words, for Lowe, categories are not themselves beings. That said, for Lowe, ontological categories of entities such as *universals*, *particulars*, and *objects* can be organized hierarchically albeit there is no universal consensus as to how such a task should be carried out (see e.g., Lowe 2002, 16; 2006, 7– 8). Universals (e.g., redness) are said to be repeatable entities and hence can be instantiated by objects occupying multiple spatiotemporal locations. Particulars (e.g., tropes) are said to be non–repeatable entities and hence can only be instantiated by one object at any given time. Objects are said to be entities that bear properties.[13]

Different ontological systems have different things to say in regard to how ontological categories are related to one another and also which categories could be fundamental. For Lowe, describing a certain ontological category as being fundamental boils down to showing "the existence and identity conditions of entities

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[11] Lowe's point is well taken. The a priori and a posteriori modes of knowledge are deeply interdependent, see also, Guta (2019a, 4–6). On controversies on a priori–a posteriori knowledge in epistemology, see Neta (2014).

[12] See also an excellent interview philosopher Tim Maudlin gave in the *Scientific American* in regard to progresses gained in philosophy in areas such as free will, morality and quantum mechanics (2018).

[13] Of course, properties also bear other properties. For example, the property of being pink has the second–order property of being a color property. Lowe thinks that what makes objects unique in the role that they play as possessors of properties comes down to the asymmetric relation that exists between the category of objects and the category of properties. An entity that belongs to the latter category is borne by the entity that belongs to the category of the former. But the converse does not hold true (see Lowe 2006, 9ff; for more details see, Loux and Crisp 2017, Chaps. 1 – 3).

belonging to that category cannot be exhaustively specified in terms of ontological dependency relations between those entities and the entities belonging to other categories" (Lowe 2006, 8). As Lowe points out, ontologists do not speak in one voice as to what categories of entities exist as well as which ones are fundamental. In this case, Lowe lays out four competing ontological systems (Lowe 2006, 10). First, for some ontologists, only tropes constitute a fundamental category (see e.g., Campbell 1990). Second, for some ontologists, only objects and universals are fundamental. Here tropes are rejected (see e.g., Armstrong 1997). Third, for some ontologists, only objects and tropes are fundamental. Here universals are rejected or reduced to classes of resembling tropes (see e.g., Martin 1980). Fourth, for some ontologists, objects, universal, and tropes are all fundamental while maintaining the ontological relationships they have with one another.

The fourth position is one that Lowe himself advocates in his four–category ontology. In this case, Lowe develops a variant of the fourth position according to which, there are two fundamental categories of particulars—objects and tropes and two fundamental categories of universals—substantial universals or kinds and property–universals. For Lowe, instances of the substantial universals are objects (individual substances) whereas instances of the property–universals (attributes) are tropes or *modes*, as Lowe prefers to call them.[14] In this view, attributes and modes are *characterizing* entities whereas individual substances and substantial kinds are *characterizable* entities. Moreover, substantial kinds and attributes are *instantiable* entities whereas individual substances and modes are *instantiating* entities. There is also an *exemplification* relation that obtains between individual substances and attributes or property universals (Lowe in Galluzzo and Loux 2015, 70–71).

We can explain this view with an example. That is, Socrates is said to be an individual substance. Socrates is also a human. In this case, *human* is said to be a substantial kind/universal. So, in saying that Socrates is a human, we are implying that Socrates instantiates the *substantial kind*, *human*. In saying that Socrates is white, we are implying that Socrates is characterized by property–universal, *whiteness*. It is also the case that Socrates's whiteness reflects the way Socrates is, that is, being white (mode). This mode in turn is an instance of an instantiation of a property–universal *whiteness*. There is also a relationship that is said to hold between Socrates and his whiteness. In this case, Socrates is said to exemplify the property whiteness. Put it differently, Socrates' whiteness and the way Socrates is (say, being white), are characterizing entities whereas Socrates and his humanity are characterizable entities. Moreover, Socrates' humanity and his whiteness are instantiable entities whereas Socrates and his being white are instantiating entities. Socrates is also said to relate to his whiteness by exemplifying it.

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[14] Lowe recognizes that the roots of this view can be traced back to Aristotle's *Categories* (see Lowe in Galluzzo and Loux 2015, 70). Lowe also includes *relations* in the category of non–substantial property universals.

Lowe sums up his four–category ontology using what he calls, the *ontological square* (Lowe in Galluzzo and Loux 2015, 71; see also Lowe 2006, 18 and 2009,10):
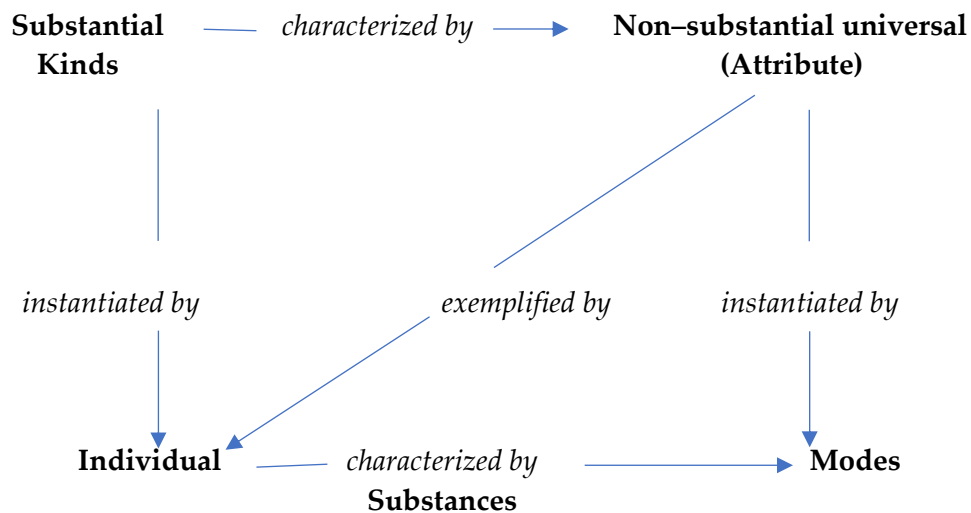

Figure 1. Ontological Square

2.3. The Advantages of the Four–Category Ontology

One of the key advantages of the four–category ontology, as Lowe argues, concerns the role it plays in providing a metaphysical foundation for natural science. In this case, the four–category ontology is said to provide a better way to account for the ontological status of the laws of nature. As is well known, there is a long–standing traditional interpretation of the laws of nature associated with David Hume—the Regularity View of Laws (Psillos 2002, 8–10). In this view, the laws of nature are said to be regularities. But the problem with this conception of the laws of nature is that not all regularities are said to be causal nor can they be taken as laws of nature. For example, even though the night regularly follows the day, no day causes the night. Moreover, simply because, say, Americans regularly carry credit cards in their pockets, we will not be justified if we were to assume that the habit in question constitutes the law of nature. So, in light of such considerations, it is said that a distinction has to be made between the good regularities that are said to constitute the laws of nature and the bad regularities that are said to fail to constitute the laws of nature and hence, are merely accidental. Only regularities that constitute the laws of nature are said to play a role in causation and explanation (see also Rosenberg 2012, Ch. 4). But there is no consensus among philosophers as to whether the regularity view of laws is sustainable even if assuming that it could be distinguished from merely accidental generalizations.[15] Philosophers also suggest that statements of laws can be spelled out in terms of counterfactual conditionals of the form, say, 'If X were the case,

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[15] For a highly influential critique of the regularity view of the laws of nature, see Armstrong (1983). Also see Psillos (2002, Ch. 5).

then Y would be the case'. Analyzing causal statements counterfactually is said to allow us to distinguish real laws from mere accidental generalizations (see Rosenberg 2012, 63–64).

Details aside, central to Lowe's account of the laws of nature is the connection he introduces between the laws and universals. By universals, Lowe means both substantial kinds and non–substantial properties (including relations). According to Lowe, the laws of nature consist in, not regularities, but relations between universals. Lowe illustrates this point using Kepler's first law—'Planets move in elliptical orbits'. For Lowe, "the law consists in the fact that the property of moving in an elliptical orbit characterizes the kind *planet*", (2006, 16). Lowe distinguishes his view from a similar well–known David Armstrong's account of the laws of nature. Unlike Lowe, Armstrong requires a second–order necessitation to obtain between the first–order properties of, say being a plant and moving in elliptical orbits (see for details Lowe 2006, 130–132). Moreover, for Lowe, law statements can be spelled out dispositionally. For example, the predicate, 'move in elliptical orbits' is dispositional in force. This is because the law indicates how planets are disposed to move owing to the gravitational force of the sun. Lowe also argues that some laws are relational, say, the attraction between electrons and protons.

Lowe also claims that the four–category ontology better handles the distinction between dispositional and occurrent or categorical states of objects, say, the solubility of salt (sodium chloride) in water. Lowe argues that analyzing such disposition statements counterfactually will not be successful, since there will always be factors that would prohibit the manifestation of a given dispositional property in question.[16] But in Lowe's view, "an object possesses a *disposition* to F just in case it instantiates a kind which is characterized by the property of being *F*" (Lowe 2006, 17). In light of this, Lowe further notes that to say that an object *O* has the disposition to be dissolved in water is to say that *O* instantiates a kind, *K*. That is, the law obtains that water dissolves *K*. On the other hand, for Lowe, "an object is *occurrently F* just in case it possesses a mode which is an instance of the property of being *F*, that is, a mode of a universal *Fness*" (2006, 17). Central to the analysis of the occurrent states of objects, as Lowe claims, is relational modes. For Lowe, the analysis of the occurrent state of an object *O*, say, salt being dissolved by some water happens, just in case, salt and water are related by a mode which is said to be an instance of a universal relation of dissolution (*Ibid*.). So ultimately, for Lowe, the distinction between the dispositional and the occurrent underlies the distinction between the domain of universals and the domain of particulars.

In Lowe's view, only objects of occurrent states are accessible for perception whereas its dispositions are not. Lowe claims that the perceptible aspects of objects are their modes or their *particular* 'ways of being' which allows them to be in various occurrent states, say, F-*dissolving*. By contrast, Lowe claims that the objects'

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[16] See my extended discussion of dispositional properties and their manifestations, see Guta (2019b, 124–134).

dispositional states are rooted in instantiating kinds which are characterized by various non–substantial property universals. Moreover, Lowe claims that the four–category ontology is better placed to show us what ties together particular properties (i.e., modes) of an object. For example, if we want to point out an object's modes, all we have to do is point out an object's features or aspects that underlie the *particular ways it is*. So given his four–category ontology, Lowe claims that an object exemplifies a property *P* in one of the following ways. In a situation where an object *O* instantiates a kind *K* which is characterized by *P*, it is said that *O* exemplifies *P dispositionally*. On the other hand, in a situation where *O* is said to be characterized by a mode *M* which instantiates *P*, it is said that *O* exemplifies *P occurently*.

Finally, Lowe extends the application of his four–category ontology to modern physics, particularly to general relativity and quantum mechanics. As Lowe remarks:

> Nothing hinders us from saying, if need be, that relativistic space–time has the status of an individual substance or object, with the consequence, perhaps, that entities that we are ordinarily apt to regard as objects—such as material bodies—are 'really' just spatiotemporally continuous successions of space–time modes. This is a view of the material world which, indeed, is prefigured in the metaphysical system of Spinoza. Again, we need not take a stand on the issue of whether the ontology of quantum entities as particles—a kind of object—or as modes of quantized field. Either way, the four–category ontology will admit of application. (Lowe 2006, 19)

Lowe claims that it is not the business of metaphysics to dictate empirical science as to how it should categorize the theoretical entities it postulates to exist. But it is metaphysics that provides the categories. But when it comes to how best to implement such categories in the construction of scientific theories is something that should be left for practicing scientists to decide. But for Lowe, the constraints imposed by the categories in question still must be respected by empirical science. For Lowe, as long as empirical science invokes the laws of nature for explanatory purposes thereby seeking to garner empirical evidence, the four–category ontology provides it with an adequate metaphysical framework. As Lowe argues, the scientific enterprise cannot be grounded in any special science but in the general science of being (ontology). It is clear then that for Lowe, the *Integrationist Thesis* that consists of both the *subject matter M* and the *subject matter S* is a defensible conception when it comes to a synergy between metaphysics and natural science.[17]

3. Objections and Replies

Here we will briefly look at two relevant objections against Lowe's *Integrationist Thesis*. **Objection # 1**: in their *Everything Must Go*: *Metaphysics Naturalized* (2007; see also Ross et al. 2013), Don Ross, James Ladyman, and David Spurrett raised what I call, a two–

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[17] For a detailed defence of metaphysical foundation for natural science, see Lowe (2006, Part III).

pronged objection against Lowe's conception of metaphysics: (a) the *possibility* of metaphysics, and (b) the *methodology* and *independence* of metaphysics.

Concerning (a) they claim,

> according to Lowe, it is the job of metaphysics to tell us what is possible, but he concedes that which of the possible fundamental structures of reality exist can be answered only with empirical evidence… However, we differ with Lowe on how this task is to be accomplished because we deny that a priori inquiry can reveal what is metaphysically possible. (2007,16)

Again, they claim, "we have no good reasons for thinking that a priori metaphysical knowledge is possible", (2007, 7). Alternatively, they propose, "Let us just stipulate, then, that inquiry into the possibility or impossibility of metaphysics is 'metametaphysics'. Then naturalistic metametaphysics, we hold, should be based on naturalistic metaphysics, which should in turn be based on science" (*Ibid.*, 6).

Concerning (b) they claim,

> According to him [Lowe]… metaphysics studies… identity, necessity, causation, space and time. Metaphysics must say what these concepts are and then address fundamental questions involving them… systematize the relations among fundamental metaphysical categories such as things, events, properties, and so on. We might reasonably ask how we could proceed with these tasks. Lowe follows Frank Jackson (1998) and many others in advocating the familiar methodology of reflecting on our concepts (conceptual analysis). But why should we think that the products of this sort of activity reveal anything about the deep structure of reality? (2007, 15–16)

Reply: The two–pronged objection as stated above in (a) and (b) aims to disentangle the *Integrationist Thesis* that is said to glue the *subject matter of M* and *the subject matter of S*. The objection in question arms the *subject matter of S* to have an upper hand over that of the *subject matter M*. But for this goal to be achievable, Ross, Ladyman, and Spurrett must show us how natural science (physics, in particular) can establish the realm of possibilities that Lowe insists belongs only to the domain of metaphysics. For example, suppose that a particle physicist and a metaphysician engage in a lively conversation as to what makes an electron to be *what it is*. In this conversation, we expect, *inter alia*, a physicist to say that an electron is an elementary particle with features such as a negative charge, spin, and mass. But when a metaphysician gets her turn, she claims that while a scientific account of the features of an electron is very informative, it nevertheless is silent on one important question. That is, in virtue of what an electron is said to have the features in question? A physicist may admit that she is not sure what insight physics proper gives us into answering this question. As the philosopher of physics, Tim Maudlin insightfully observes, "an astonishing amount of physics can proceed without answers to these [sorts] of questions" (2012, xi). As Maudlin further remarks,

> it is characteristic of a contemporary physics education that much more time is spent learning how to solve the equation and get practical answer…than discussing the more "philosophical" questions about the nature of heat, or the nature of space and time, or the nature of matter. (*Ibid*. xii)

Here Maudlin's remarks strengthen our earlier observation in regard to why a physicist's answer to the features of an electron tells us only an incomplete story. This opens up a need for physics or natural science, in general, to team up with metaphysics to get as much complete picture as possible as to what the nature of an electron is. In this spirit, our metaphysician could answer the question raised earlier by saying that an electron has the features that it has in virtue of instantiating the kind, *electronhood*, or *substantial universal*. In any case, such an answer is not available within natural science itself. Similar reasoning and conclusion can be advanced to other features of reality, say causation, identity, necessity, properties, events, space and time.

But Ross, Ladyman, and Spurrett passionately reject the role of a priori metaphysics assumed here. For them, metaphysics cannot play such a role in uncovering aspects of reality. Instead, the metaphysical claim that they say worth taking seriously is one they describe as *naturalistic metaphysics*. They explain the gist of their naturalistic metaphysics through what they call the *Principle of Naturalistic Closure* (PNC):

> Any new metaphysical claim that is to be taken seriously at time t should be motivated by, and only by, the service it would perform, if true, in showing how two or more specific scientific hypotheses, at least one of which is drawn from fundamental physics, jointly explain more than the sum of what is explained by the two hypotheses taken separately. (2007, 37)

Central to PNC is the idea that metaphysics' sole role is unifying two or more scientific hypotheses. But what evidence is there within science that shows that the role of metaphysics is nothing but playing the role of unifying hypotheses? Recently, as Tuomas Tahko argued in his, *Unity of Science* (2021, 40–64), establishing the unity of science requires a robust metaphysical/ontological framework. In Tahko's discussion, Lowe's four–category ontology plays a key role. Since PNC strips metaphysics of such an ontological basis, it remains entirely unclear what motivates it as a solution to ensure the unity of science. As stated, PNC does not even seem to satisfy its own standard. Notice that proponents of PNC reject a priori metaphysics. But PNC does not seem to escape a *prioricity* in the way it is supposed to function. Playing the role of unifying different scientific hypotheses can only be accomplished by employing an apriori approach. If this is true, then PNC is no less a priori metaphysics as traditional metaphysics is. Again, if this observation is true, then PNC seems to be self–defeating unless there is a reason to think that it operates on a purely a posteriori basis. But I am unable to see what this reason could be.

Similarly, Ross's, Ladyman's, and Spurrett's claim that inquiry into the metaphysical possibility or impossibility being a metametaphysical[18] matter is also something that can only be dealt with via a priori means. There is nothing within science itself that establishes an a priori approach presupposed by PNC. If I am right about this, why embrace a prioricity in the case of PNC (naturalistic metaphysics) but deny it in the case of traditional metaphysics? Finally, identifying Lowe's analytic metaphysics with conceptual analysis is highly misleading. Although Lowe recognizes the role of conceptual analysis, he categorically denies that in doing metaphysics, he is after conceptual analysis in the manner of Frank Jackson (1998).[19] Rather for Lowe, doing metaphysics is an intellectual exercise to discover truths about reality. That said, for Lowe, such discovery of truths about reality involves both metaphysics and science. So, for the objections in (a) and (b) to have any chance of succeeding, a non–metaphysics presupposing counter–evidence needs to be produced from within science against Lowe's *Integrationist Thesis*. As I see it, such scientific evidence is non–existent.

Objection # 2: In his essay entitled, "Ambitious, Yet Modest, Metaphysics'', Thomas Hofweber (2009, Ch. 9) describes the greatest threat to metaphysics as a philosophical discipline. As he explains,

> the questions that metaphysics tries to answer have long been answered in other parts of inquiry, ones that have much greater authority. And if they haven't been answered yet then one should not look to philosophy for an answer. What metaphysics tries to do has been or will be done by the sciences. There is nothing left to do for philosophy, or so the worry. (2009, 260)

Hofweber claims that there is one radical attempt to save metaphysics in light of the objection under consideration. In this case, Hofweber claims that Lowe's metaphysics is representative of a radical way given that it strongly assumes that metaphysics provides a foundation for natural science as discussed in section 2. Hofweber calls Lowe's *Integrationist Thesis* (i.e., the relationship between metaphysics and the sciences) the *immodest attitude*. Hofweber calls Lowe's conception of metaphysics immodest because, given such a view, metaphysics is given greater importance than it actually deserves (2009, 263).

Reply: There are several ways one can go about responding to Hofweber's objection as outlined above. Here I am only interested in exploring one response. The objection implies that science is a self–sufficient domain of human inquiry. In this case, a defender of such a view of science seems to be setting herself up to assume a serious burden of proof to establish that no questions that arise in the domain of metaphysics

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[18] Metametaphysics is the study of metaphysics itself. In other words, it is a second–order study of first–order issues (questions) that arise in metaphysics proper. See for detailed discussions, see Chlamers, Manley and Wasserman, eds., (2009); Tahko (2015); Williamson (2007).

[19] See my critique of Jackson's 'serious metaphysics and the location problem' (Guta 2011:35–58). Cf. Willaimson (2018: Ch.4).

have independent relevance. But if it turns out to be the case that there are aspects of reality that can be handled better within the metaphysical domain than that of a scientific one, then the central claim of Hofweber's objection will be severely undermined.

To illustrate this point, I briefly discuss Joseph Melia's excellent argument that shows why scientific theory at any level of progress inevitably lacks answers for certain kinds of questions. In his *Modality* (2003, 1–2), Melia asks us to entertain the following scenario. Suppose that we happen to have a greatly comprehensive and accurate theory of the world. Moreover, the language of this theory is said to contain a name for every object and every single thing. This theory leaves out nothing, say the black holes of the furthest galaxies, even the fine spider web swaying in the corner of the attic. Moreover, the theory contains a predicate for every instantiated simple or complex categorical property. The theory gives details as to what things are like to the highest level. For example, it tells us if something has a mass of 1.153 kg, if it has a charge of 4.238322 coulombs and if it has a length of $\sqrt{2}$ meters. Furthermore, Melia asks us to suppose that finally, everything the theory states is true. The theory accurately reports the shapes, sizes, masses, and charges of every fundamental particle in my finger. In short, everything in the theory is true.

But as Melia notes, many salient questions need to be asked regarding such a surprisingly complete theory. That is, does every truth appear within the theory? Would the theory account for every single matter of fact? If such a theory ever came to be written down, could thinkers and scientists finally rest from their work? What more could one do or say? What else could there be to add? Melia claims that many philosophers wouldn't accept such a theory to be a theory of everything. This is because there is a class of truths concerning which the theory in question remains silent. This is the case, as Melia correctly claims, that the theory in question lacks the resources needed to describe such truths.

Melia explains this point by asking us to consider the following sorts of claims: "John is short" and "John is human". Both of these claims have a subject–predicate form. Each is said to attribute a categorial property to John. However, the ontological status of each of these claims is not equivalent. That is, the first claim attributes an accidental property to John whereas the second claim attributes an essential property to John. But there is an important difference between these two kinds of properties. For example, John can lack an accidental property of his current short height without ceasing to exist. John can grow a few inches taller than he currently is. But no such compromise is possible when it comes to Jonh's essential property. That is, John cannot exist if, say, he loses his humanity or being human. This is because *being human* is an essential property John must have to exist. But such class of truths as Melia rightly claims do not figure into the alleged theory of everything in question. There is no empirical way to establish such truths. So, contra Hofweber, there is a class of truths on which natural science renders us no help at all. Since such a class of truths exists, as Lowe argues, metaphysics is the domain of inquiry where such truths receive proper treatment. In light of such considerations, Lowe's conception of metaphysics

hardly constitutes an immodest attitude, as Hofweber claims. Rather it is defending the view of science advocated by Hofweber that constitutes an immodest attitude. This is because such a view of science entails a strong form of scientism, which is self–defeating. It is self–defeating because to say that science is the only source of reliable knowledge is a straightforward philosophical thesis for which no empirical basis is available to justify it.[20] In other words, the problem here is conferring upon science the status it does not even have. It remains entirely unclear to me, therefore, what motivates Hofweber's objection against Lowe's conception of metaphysics. In section 4, we will have more examples that show us why we should be wary of both sorts of objections considered here.

4. A Realist Account of Theological Claims

The question of whether the discipline of theology is a rational, independent domain of inquiry into the nature of reality continues to stir intellectually stimulating conversations. Some of these conversations question both the metaphysical and the epistemic basis of theological claims as having cognitive content. Taken from the standpoint of metaphysics, theological claims are said to fail to correspond to a mind–independent reality. Similarly, taken from the epistemic standpoint, theological claims are said to lack the proper methodology of verification. Such skepticism expressed toward theological discourse is often advanced against the backdrop of scientific achievements. In this case, the veiled message of the skeptics in question is that theological discourse faces both problems of *verifiability* and *reliability*. In contrast, natural science is said to have no such defects given that it constantly updates itself in light of ever–growing advances.[21] Does this mean that theological realism is doomed to fail? Can science dictate how theological discourse should take place or advance? Is science qualified to pass a verdict on whether or not theological discourse constitutes a genuine form of knowledge concerning reality? In short, is the fate of theology in the hand of natural science? These are the sorts of questions I will try to tackle in this final section of my paper. But first I will begin my discussion with a positive account of theological claims.

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[20] For an excellent discussion on scientism and the problems associated with it, see Moreland (2018).

[21] Historically an important German theologian who suggested demythologizing the New Testament in light of the scientific age is Rudolf Bultmann (see Bultmann, 1961). Similarly, a philosopher David Hume dismissed the New Testament miracles as impossible accounts due to their clash with the laws of nature, see Peter Millican, ed. (2007: section X). Both Bultmann and Hume made a huge impact in their respective disciplines. However, it is still an open question whether they were successful in changing minds across the board. I remain highly doubtful of the plausibility of their views.

4.1. Theology and Theological Claims

By 'theology' I mean specifically, *Christian theology*. As is well–known, Christian theology contains within it incredibly diverse traditions and theological hermeneutic. But getting into these discussions is not relevant for present purposes. Instead, my focus will be on the central theological claims that all parties on a theological spectrum largely embrace despite the existing differences. So, what are these theological claims that the parties in question may coalesce around?

Here I follow Alvin Plantinga's excellent characterization of Christian belief in his *Warranted Christian Belief* (2000, Vii). For Plantinga, Christian belief encompasses the great creeds embraced by the main branches of the Christian church. In this case, Plantinga mentions Christian thinkers such as Calvin and Aquinas, Luther and Augustine, Mennon Simons and Karl Barth, Mother Theresa and St. Maximus the Confessor, Billy Graham and St. Gregory Palamas. These Christian thinkers are said to represent classical Christian belief. For Plantinga, the Christian belief consists of two components, namely the *theistic component of the Christian belief* and the *uniquely Christian component* respectively. I present these two components (with minor revision) as follows:

A.   *Theistic component*

1.   There is such a person as God.
2.   God is a person—a being with intellect and will.
3.   A person has (or can have) knowledge and belief, including affections, loves, hates, intentions, and a capacity to act to execute them.
4.   God has some knowledge, power, and love to the maximum degree.
5.   God is all–knowing, all–powerful, perfectly good, and wholly loving.
6.   God created the universe and regularly upholds and providentially guides it.

B.   *Uniquely Christian component*

7.   Human beings are mired in rebellion and sin.
8.   Human beings need deliverance and salvation.
9.   God has arranged ways for human beings to receive deliverance through the sacrificial suffering, death, and resurrection of Jesus Christ.
10.   Jesus is both a man and a uniquely divine son of God.

The claims in the domain (A) can be grouped into (i) personhood–focused claims (1)–(3); (ii) attribute–focused claims (4)–(5); and (iii) an action–focused claim (6). Similarly,

the claims in the domain (B) can be grouped into (iv) human condition–focused claims (7)–(8) and (v) a solution–focused claim (9) and an identity–focused claim (10).[22]

The first thing we need to keep in mind in regard to theological claims is the fact that they strongly presuppose realism. The term 'realism' is used in so many different ways (see e.g., Brock and Mares, 2007). But in the present context, I use it in a more restricted sense. In this case, realism applied to the theological claims entails that the claims in question are assertions about something real or some state of affairs that obtain. These factual statements can also be stated in the form of subject–predicate statements, as shown in the examples above. Setting aside the question of whether all predicates play a referential role, the theological claims in question are taken to be (or, at least, supposed to be) referentially secure. That is, the predicates of such theological claims are said to have referents. That is, they are about something/someone real. So, the extension of the predicates of the theological claims in question are not empty, say, as the predicates of the statements such as, 'Moses is twenty feet tall' are. As far as we know, no human being ever lived who satisfied the predicate 'is twenty feet tall.'[23]

By contrast, consider one of the theological claims, *Jesus is both a man and a uniquely divine son of God*. For this theological claim to have any serious significance, the reality of Jesus must be assumed. But this does not mean that Jesus' reality is contingent on us assuming that he is real. If that were the case, such reasoning would open up a can of worms for all sorts of things to claim the status of being real. That is, just by assuming that *X* is the case, we would conclude that *X* is real. But counterexamples for such reasoning are not hard to come by. For example, consider the statement, 'the present king of France is bald'. But the subject term (definite description) of this statement does not denote or pick out a real, concrete human king. This is because France has no king. So, no amount of imagining or assuming would cause the present king of France to exist. Therefore, the state of affairs of France having a king does not obtain. But since the theological claims/statements in question are said to be grounded

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[22] Plantinga's two components raise a question concerning whether theistic God is the same as that of the Christian God. For example, in her Aquinas Lecture (2016) entitled: ''The God of the Bible and the God of Philosophers,'' Eleonore Stump addresses this very question. Stump claims that it is not uncommon among theologians and philosophers to assume that the God of the Bible is radically different from that of the God of classical theism that the philosophers talk about. As Stump points out, the God of the philosophers is said to be identified by standard attributes mentioned in the domain (A) particularly (4)–(5). But Stump makes a strong case against a bifurcation introduced in regard to the God of the Bible and the God of classical theism. For Stump, no such bifurcation is sustainable. So, Stump argues that the God of classical theism is identical to that of the personal biblical God (2016, 19). I, too, will not make any distinction between the God of classical theism and the God of the Bible. But it is not relevant for my present purpose to advance this discussion any further (see further Stump 2016). Unless otherwise stated, in the rest of this paper, I do not refer to Plantinga's two components separately. Instead, I simply refer to them as *theological claims*. I thank Stump for sending me a printed copy of her Aquinas Lecture delivered at the Philosophy Department at Marquette University.

[23] For controversies on this and similar other issues having to do with singular terms and whether they play genuine referential roles, see Lycan (2000).

in reality, they enjoy an ontological status that is different from that of statements/claims such as 'the present King of France is bald.'

So, assuming that theological realism and the sorts of theological claims in question are inextricably linked, what grounds the supposed realism? This question brings us to the second important matter that we need to keep in mind in regard to theological claims. Here I have in mind, the *source of epistemic justification*. Joining other philosophers, by 'epistemic justification' I mean, ''the property ascribed to a belief in virtue of satisfying certain evaluative norms concerning what a person ought to believe" (Honderich 1995, 434). Epistemologists have long argued that knowledge requires satisfying three necessary and sufficient conditions, namely *justification*, *belief*, and *truth*. In light of this, knowledge has been defined as *justified, true, belief*.

Of course, in the wake of Edmund Gettier's (1993) counterexamples,[24] most, if not all, philosophers nowadays think that the supposed three conditions mentioned above count only as necessary but not as sufficient conditions for knowledge. So, we have an incomplete definition of knowledge. That is, knowledge is justified true belief + _____. What goes into this blank remains to be everyone's guess. But the concept of justification has been spelled in various ways. For example, according to *foundationalism*, properly basic beliefs confer justification for non–basic beliefs. But properly basic beliefs themselves are not based on other beliefs. According to *coherentism*, epistemic justification consists of a web of mutually supporting beliefs. According to *reliabilism*, epistemic justification is rooted in a reliable process or method that makes true beliefs possible. Moreover, traditional epistemology is said to be thoroughly *a priori* in its modus operandi. But owing to its *a priori* nature, it faces *epistemic skepticism*. This is a denial of the possibility of attaining knowledge via purely an *a priori* means. It was largely due to concerns related to epistemic skepticism that Quine famously proposed naturalizing epistemology, i.e., reduce it to or identify it with empirical psychology (see Quine 1969, Ch.3).

But what is the source of epistemic justification for theological claims? Although a lot of what has been said about epistemic justification applies to theological claims, in my view, the mere *a priori* method won't do. In saying this, however, I am not implying that theological claims should not be approached via an *a priori* means. Of course, they should! But as I see it, such an *a priori* method has no primary importance. There is something else that takes the driver's seat. In this case, I have in mind 'divine revelation'. Following theologians and Christian philosophers, I understand that the divine revelation takes two forms, one *general* and the other *specific*. The former pertains to creation taken as a whole whereas the latter pertains to the Holy Scriptures and the Incarnate Christ. Each version of this divine revelation has been and still is a

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[24] Edmund Geitter argued that the traditional definition of knowledge as justified true belief only gives us necessary conditions for knowledge. We have yet to come up with a sufficient condition. No resolution has been reached yet on what qualifies as a sufficient condition (see for details Geitter 1963; Feldman, 2003). For an excellent book on epistemic justification, see Alston (1989).

subject of stimulating intellectual discussions. For present purposes, I do not revisit these discussions.[25]

In the order of ontology, it is the *divine revelation* that provides a primary source of epistemic justification for theological claims. Only secondarily, that is, on an epistemic level, an *a priori* reason can be said to play its part. Put differently, in the tradition of Christian thinkers such as Augustine, Anselm, and Aquinas, *faith and reason* come together to link ontology and epistemology (see e.g., John Paul II 1998). It is the faith–reason framework that underlies *epistemic justification* for theological claims. Of course, this does not mean that theological claims do not enjoy epistemic justification outside of the faith–reason framework. Quite the contrary. For example, the domain of the theological claims spills over into a second–order discipline such as the *philosophy of religion*. Here issues as diverse as God's existence, religious experience, divine attributes, the problem of evil, miracles, life after death, faith and reason, and many others are debated (see e.g., Peterson, Hasker, et. al 2014; 2003; Craig, 2002; Swinburne 2004). As we shall see, there are also excellent reasons to think that theological claims spread their tentacles over the scientific domain.

Of course, nothing I have said up to this point is shielded from objections. In this case, following Plantinga, I anticipate two objections, namely *de facto* and *de jure* respectively (2000, viii–xii). The *de facto* objections focus on challenging the truths Christians believe in the face of the ongoing suffering and evil in the world. It has been said that the presence of suffering and evil is incompatible with an all–powerful and all–knowing God who claims to have shown his love to us via his son. The *de jure* objections state that regardless of whether Christian belief is true, it remains to be unjustified or irrational or lacks sufficient evidence, or intellectually inferior to other disciplines. Christian philosophers, including Plantinga, have given ingenious responses to each of these objections. Here I do not want to regurgitate those responses or add my own to an existing list. Instead, I will respond to both of these objections against the backdrop of Peter Byrne's eliminativism/agnosticism of the truths of theological claims.

4.2. Peter Byrne's Theological Eliminativism/Agnosticism and Lowe's Synergistic Model

In his *God and Realism,* Peter Byrne (2003), made a case against theological realism. Byrne's critique of theological realism is situated in the comparison he draws between Christian theology and natural science. According to Byrne, both theology and natural science are discursive elaboration and exploration of claims about the divine and the material world. In both of these cases, the central question that needs to be taken seriously is this: can theology and science be interpreted realistically? For Byrne, only natural science receives an affirmative answer to this question. Byrne claims that the

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[25] Here I have in mind specific responses given to objections that challenge the veracity of the divine revelation (see e.g., Craig 1994; Copan and Craig 2004).

history of science shows us that science is a cumulative enterprise. That is, science exhibits an increased knowledge of facts. For Byrne, scientific thought and practice are shaped by cognitive contact with reality. Science is always after figuring out what reality is like. This makes science progressive in the sense of getting closer and closer to the truths. So, science accumulates reliable beliefs through genuine ways as opposed to a mere accident. For Byrne, there is an asymmetry between how we account for thought and activity that aims at the discovery of truth and activities not so directed. Unlike non–realists, scientific realists believe that the aim of science is attaining truths about reality. Science tracks such truths through dynamic ways which also allows it to correct itself in light of new evidence. For example, we no longer believe in phlogiston and ether. The past theories always pave the way for the later ones thereby allowing science to undergo a dynamic process—ensuring constant improvement (2003, 155–161). As Byrne states,

> One of the reasons why science tends to produce reliable beliefs about the world rests upon the fact that the scientific community is bound by norms of proof and evidence… experimental results in science are not valid unless they come with the means to enable other experimenters to repeat the experiments and produce the results. There are good standards of good work and good reasoning in science and those standards are productive of beliefs…[which] enable scientists to be open for real–world influences (*Ibid*. 161).

Given such a view of natural science, for Byrne, two things would follow. First, natural science has the most reliable epistemic foundation in uncovering truths about the nature of reality. Second, its emphasis on discovering truths about reality qualifies science to be interpreted realistically.

In contrast, no such realistic interpretation is warranted when it comes to Christian theology. Theology does not enable its practitioners to have cognitive contact with divine reality. Byrne claims that the academic discipline of theology does not produce reliable beliefs about God or anything at all. Theology cannot be understood realistically. There is no moral knowledge and inquiry in theology that is analogous to the morality of scientific knowledge. Theology is non–cumulative, that is, it does not make progress in gaining insights into reality. Yet Byrne claims that his non–realist position concerning theological claims is not intended to prove the non–existence of God or unknowability of God. Byrne claims that there may be a God. Some classes of beliefs could even be said to be reliable. But there is no way to investigate the beliefs in question via inter–subjective collaboration. For Byrne, the lack of inter–subjective investigation of theological claims means that we cannot invest in theological inquiry to acquire a body of reliable beliefs about God. So, Byrne claims that we should be theological skeptics/agnostics. This is because, as a discipline, for Byrne, theology is incapable of advancing a stock of reliable beliefs about independent objective reality. Theology can be said to involve reason and argument. However, for Byrne, theology still lacks the means to establish its reliability. So, for Byrne, the fate of theology must

be its elimination from being one of the domains of inquiry where reliable beliefs are produced (*Ibid*. 161–165). Here is Byrne's key argument (*Ibid*. 162):

i.   All disciplines of thought that can be interpreted realistically show the accumulation of reliable beliefs.
ii. Theology does not show the accumulation of reliable beliefs.
iii. Therefore, theology cannot be interpreted realistically.

Reply 1: Byrne's argument above is a valid deductive argument. As we know from our elementary study of logic, if the premises of a deductive argument are true, then the conclusion must also be true. In light of this, if the premises (i) and (ii) are true, then the conclusion (iii) must necessarily be true. In this regard, Byrne can get a free pass. But I will argue that Byrne's argument is not sound because premise (ii) is false. If there are compelling reasons for thinking that (ii) is false, then the conclusion of this argument (iii) would not follow.

There are two major conditions that Byrne's characterization of natural science must satisfy for his theological anti–realism to take off the ground. First, there must be a scientific method that is exclusively owned by natural science. Second, it must be true that, as a matter of fact, theological questions do not coincide with scientific questions in regard to the nature of reality. Let us call these two conditions, the *exclusively scientific methodology* and the *non–coincidence of theological questions with the questions of natural science* respectively. If Byrne's argument introduced above fails to satisfy these two conditions, then his eliminativism of theological realism falls apart. Notice that for Byrne, the two conditions above hinge on the phrase he repeatedly uses, which is, 'accumulation of reliable beliefs.' In Byrne's view, natural science is equipped with a distinctive methodology that enables it to keep making progress, which results in the accumulation of reliable beliefs.

But what is a scientific methodology? For philosophers of science, this is a million–dollar question because it is not clear at all what constitutes the supposed scientific method in question. For example, in his *Christianity and the Nature of Science*, J. P. Moreland argues why there is no such thing as the scientific methodology. Instead, the best we can say in this regard, as Moreland claims, is that there is a cluster of practices and issues that are used in different settings which can be loosely described as scientific methodologies. Furthermore, as Moreland argues, other disciplines outside science also practice the sorts of methodologies attributed to science. For Moreland, it is naïve to think that there is a single, clear–cut method used exclusively by science alone. This is because science is not an isolated discipline from other disciplines such as philosophy and theology. But a restricted application of scientific methodology arises, as Moreland sees it, from a superficial grasp of human action. Moreland's point is that formulating, using, and justifying scientific ideas is part and the parcel of human action which by its very nature is multifaceted (1989, 59–60; Cf. Rosenberg 2012, chaps. 7–15; Lowe 2008, Part II). Since no exclusive scientific

methodology exists, Byrne's account fails to satisfy the first condition. Hence, his effort to establish his theological anti–realism faces a roadblock.

But the absence of an exclusive scientific methodology means that other disciplines such as theology can advance their own agenda independently. In this case, theology is not answerable to natural science to be justified in what it pursues. But this does not mean that theology should not defer to natural science in certain areas of investigation of reality. Of course, there are complicated models of interaction that are said to show the integration of science and theology. For example, Garrett DeWeese and J. P. Moreland discuss five such models (2005, 151ff; see also Carlson 2000). Firstly, the *two realms model*. According to this model, propositions in theology and other disciplines are said to generally involve two distinct, non–overlapping areas of investigation. For example, debate on the doctrine of atonement has little, if at all, to do with quantum physics. So, theology does not need any lecture from science to advance its knowledge of the doctrine of atonement. Secondly, the *complementarity model*. According to this model, propositions in science and theology are said to be non–interacting yet complementary approaches to the same reality. That means that these disciplines are said to adopt very different standpoints in the questions that they ask as well as the answers they give. For example, physical theory tells us what the elementary constituent parts of matter are, say electrons and quarks whereas theology tells us who created such elements. Thirdly, the *direct interaction model*. According to this model, propositions in theology and other disciplines are said to directly interact with each other. In doing so, they are said to offer rational support or raise rational difficulties for each other. For example, the existence of the soul raises a rational problem for scientific naturalism since it denies its existence. In the same vein, the general theory of evolution raises some difficulties to a certain interpretation of the book of Genesis.

Fourthly, the *presuppositional model*. According to this model, theology is said to support the presuppositions of other disciplines and vice versa. For example, the assumptions of science, say, in regard to the finite beginning of the universe make sense within the context of Christian theism. Similarly, philosophical critiques of epistemological skepticism and defenses of a correspondence theory of truth offer justification for some of the presuppositions of theology. Finally, the *practical application model*. According to this model, theology is said to be in a position to fill out and add details to general principles in other disciplines and vice versa. Theology enables one to practically apply principles found in other disciplines and vice versa. For example, theology tells us that fathers should not provoke their children to anger. Psychology can give us some insights into family systems as well as the nature and causes of anger.

In light of the foregoing five models, the discipline of theology is not as bankrupt as Byrne would like us to believe. The truth is the exact opposite. These models show us how theology is capable of accumulating reliable beliefs by tapping into any available and relevant methods of inquiry found outside as well as within its circle. Theology also can come to the aid of other disciplines when doing so is relevant. If

such models of interaction between theology and other discipline are defensible which I believe that they are, then Byrne fails to satisfy the second condition—*the non–coincidence of theological questions with those of the natural science*. Hence, once again Byrne's theological anti–realism is entirely unmotivated.

Reply 2: In light of Byrne's failure to satisfy the two conditions that were meant to motivate his theological anti–realism, we are well–positioned to show why premise (ii) of his argument against theological realism is false. In this case, Lowe's synergistic model takes center stage. Recall that Lowe's synergistic model defends the *Integrationist Thesis* that brings together the *subject matter of M* and the *subject matter of S*. Recall also that the *Integrationist Thesis* entails both the independence as well as the interdependence of the *subject matter of M* and the *subject matter of S*. Taken this way, neither the independence nor the interdependence aspect of the thesis in question should be compromised in the sense of favoring one over the other. So, the thesis in question is as tightly knit together as anything can be.

Against the backdrop of Lowe's synergistic model, I propose that we should take theological claims identified in section 4.1 as species (versions) of metaphysical/ontological claims. They deserve such identification given their focus on the nature of reality in general and the existence of *being* (ontos) in particular. Let us call them *metaphysical claims** (MCs*). It is important to see the main difference between Lowe's conception of metaphysics proper and MCs*. Lowe's metaphysics proper is an a priori rational inquiry into the realm of possibility. Given Lowe's conception of metaphysics, there is a two–level source of epistemic justification. On level one, the epistemic justification for the supposed realm of possibility is rooted primarily in an a priori rational reflection. On level two, verifying the actual reliability of the supposed realm of possibility is something that should be left for natural science to inform us. But in the case of MCs*, we can think of a three–level source of epistemic justification. On level one, the epistemic justification for MCs* is primarily grounded in the *divine revelation* as I argued in section 4.1. On level two, verifying the plausibility and reasonableness of the nature of divine revelation can only be demonstrated by utilizing an a priori method or reflection. Remember that this is precisely what the faith–reason framework is ultimately supposed to show us. To be more precise, biblical faith is a rational faith, that is, it is based on reason. On level three, MCs* gets the relevant epistemic justification in light of its interaction with natural science. Notice that there are different ways that MCs* interacts with natural science as the five models above show us. We can describe such triangulation of epistemic justification for MCs* via a geometrical figure as follows:
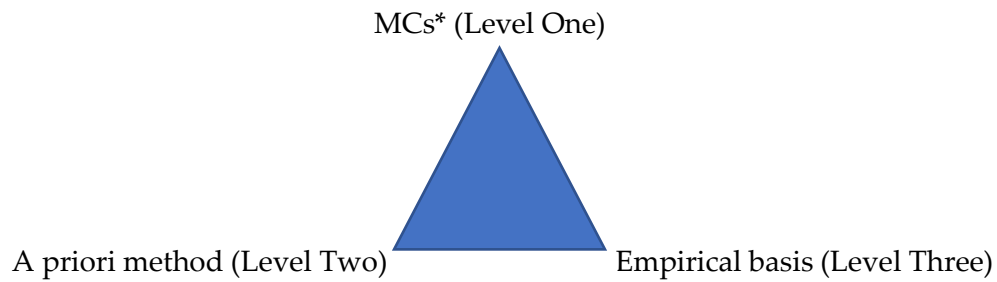
Figure 2. Sources of Epistemic Justification

Despite their distinctions, the three levels laid out above are interdependent. Moreover, all the main features of the conception of metaphysics defended by Lowe directly apply to MCs*. Let us look at one of the representative examples of what making progress, that is, accumulating reliable belief looks like in the domain of MCs*. Here Lowe's four–category of ontology is a good case in point. It can be applied to the person of Christ. Elsewhere I have argued extensively for the metaphysical/ontological basis of the person of Christ (see e.g., Guta 2019b, 113–143). Here I cannot do more than illustrating my point in regard to how the four–category ontology can be adopted to discuss the ontology of the second person of Trinity.
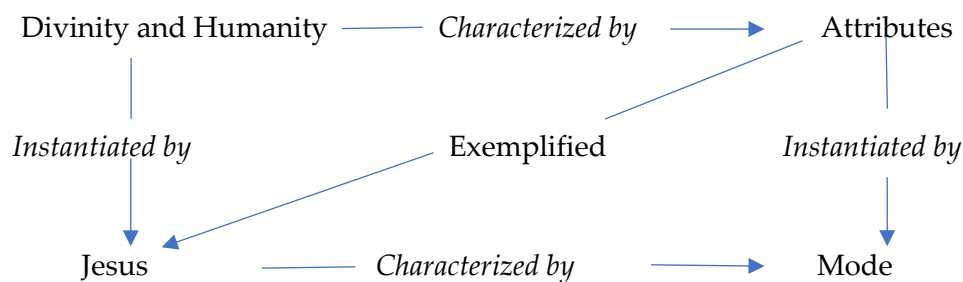
Figure 3. Christological Square

If we follow Byrne's suggestion, we should eliminate the Christological Square as a non–starter. Given Byrne's view of how science is supposed to work, accumulating a body of reliable beliefs is what only science can do. But no such reliable beliefs can be attained concerning MCs*. However, we already saw that there are reasons to think why Byrne's theological anti–realism does not have a lot going for it. The truth is that natural science has nothing to offer to our knowledge of the Christological Square. Our primary knowledge of the truths of MCs* in the Christological Square can be attained based on the three–level steps discussed earlier. Of course, the Christological Square also has an empirical basis given that the historicity of the person and work of Christ is one of the most well–established areas in Christian theology.

So, contra Byrne's claim that genuine progress is non–existent in theology, we have compelling reasons to think that premise (ii) is false. That means that theology does show the accumulation of reliable beliefs. In this regard, the recently burgeoning area of research and interdisciplinary collaboration in analytic theology is a good case in

point. For so long, theological discussions have been dominated by systematic theology (see e.g., Erickson 1985). But in recent decades analytic philosophers of religion have begun taking part in the explication of core doctrines in Christian theology such as the doctrine of Christ, trinity, atonement, and others (see e.g., McCall 2021; Arcadi and Turne 2021; Crisp and Rea 2009). In explaining the goal of analytic theology, one of the leading contributors to the field, Michael Rea sums it up as follows. The first goal is, "to identify the scope and limits of our powers to obtain knowledge of the world" and the second goal is "to provide such true explanatory theories as we can in areas of inquiry (metaphysics, morals, and the like) that fall outside the scope of the natural sciences" (2009, 4). Rea's remark here strengthens what we have been saying all along. Rea's remark also has an implicit implication for theology's capability in setting an agenda for natural science. For example, theology strongly assumes that the universe was created by a personal God. But the details that go into what such a universe is composed of or what its fundamental properties are like are issues that can be studied by natural sciences, say, physics, chemistry, and biology. What we can come to know about the universe via such disciplines can, therefore, reinforces the central truths already asserted by MCs*. So rather than enmity, what we see here is, cooperation between natural science and MCs*. Similarly, Rea's two goals are entirely in line with Lowe's synergistic model.

Anyone who follows Byrne's lead can mount the sorts of objections we considered against Lowe's conception of metaphysics which we found them to be wanting. For example, one may try to undermine the role of MCs* for our knowledge of the nature of reality. Alternatively, one may elevate the role of science. But the responses we already produced in defense of Lowe's conception of metaphysics equally apply to show the defensibility of MCs*. But there is no need to rerun those objections and responses here. But in closing, it is worth saying something albeit briefly regarding Byrne's response to the two objections Plantinga identifies as *de facto* and *de jure*. Recall that the former objection targets the credibility of MCs* in the face of suffering and evil. The latter objection dismisses the credibility of MCs* ultimately as being irrational and an intellectually unworthy project.

Given his theological anti–realism, Byrne wholeheartedly embraces both the *de facto* and the *de jure* objections. But to those of us who think that these objections fail to succeed in rendering MCs* unreliable, Byrne has a reply along the following lines. Here Byrne's response targets Plantinga's treatment of the above two objections. As Byrne claims:

> Even those who think that the Godhead does implant theological beliefs into people will have to concede that the process has not worked to establish an increasing stock of reliable beliefs about this God. What do Christians know more about God now than they did 800 years ago? (2003, 167)

A central flaw in Byrne's reply is that he thinks that there is only one way to obtain reliable beliefs about reality and that is a scientific way. We saw with enough examples

why such conception of the role of science is not only dubious but also is deeply mistaken. There are non–scientific disciplines that benefit from science and vice versa. We don't have a one–way street here. Instead, we have a multiple–way street that feeds into each other all the relevant and accurate information about the nature of reality. Nothing short of such a holistic approach could be taken as a promising way to ensure progress in dealing with both MCs* and natural science. In this case, Lowe's synergistic model is the most effective and superior to that of Byrne's eliminativist–agnostic approach. In light of such considerations, as I see it, there is no good reason to think that premise (ii) of Byrne's argument is true. If I am right about this, then we can modify it and turn Byrne's initial argument on its head as follows:

i.   All disciplines of thought that can be interpreted realistically show the accumulation of reliable beliefs.
ii.   Theology does show the accumulation of reliable belief.
iii.   Therefore, theology can be interpreted realistically.

5. Conclusion

In this paper, I have aimed to discuss E. J. Lowe's view of the synergy between metaphysics and natural science. In doing so, I extended Lowe's synergistic model to develop a realist account of theological claims thereby responding to Byrne's strong form of eliminativism and agnosticism about theological claims. In light of the reasons presented in this paper, I concluded that there are no good reasons to embrace Byrne's theological anti–realism. In contrast, there are excellent reasons to embrace theological realism. In this case, Lowe's synergistic model proves itself to be superior to that of Byrne's eliminativist–agnostic approach in dealing with MCs*.[26]

Bibliography

Ayer, A. J. 1946. *Language, Truth, and Logic*. 2nd edition. New York: Dover Publications.

Alston, William P. 1989. *Epistemic Justification: Essays in the Theory of Knowledge*. Ithaca, NY: Cornell University Press.

Aristotle. 2016. *Metaphysics*. Trans., by C. D. C. Reeve. Indianapolis: Hackett Publishing Company.

Arcadi, James M., and James T. Turner Jr. eds. 2021. *T&T Clark Handbook of Analytic Theology*. Bloomsbury Academic. https://doi.org/10.5040/9780567681317.

Armstrong, David M. 1997. *A World of States of Affairs*. Cambridge: Cambridge University Press.

Armstrong, David M. 1983. *What is a Law of Nature?* Cambridge: Cambridge University Press.

Brock, Stuart. and Edwin Mares. 2007. *Realism and Anti–Realism*. Ithaca: McGill–Queen's University Press.

Bultmann, Rudolf. 1961. *Kerygma and Myth: A Theological Debate*. New York: Harper and Row.

Byrne, Peter. 2003. *God and Realism*. Aldershot, Hants: Ashgate.

Campbell, Keith. 1990. *Abstract Particulars*. Oxford Blackwell.

Carnap, Rudolf. 1950. "Empiricism, Semantics, and Ontology." *Revue Internationale de Philosophie*, 4 (11): 20–40.

Carlson, Richard F., ed. 2000. *Science and Christianity: Four Views*. Downer Grove, ILL: InterVarsity Press.

Carruth, Alex., Sophie Gibb, and John Heil, eds. 2018. *Ontology, Modality, and Mind: Themes from the Metaphysics of E. J. Lowe*. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780198796299.001.0001.

Chalmers, David. J., David Manley, and Ryan Wasserman. 2009. *Metametaphysics: New Essays on the Foundations of Ontology*. Oxford: Clarendon Press.

Cohen, S. Marc, and C. D. C. Reeve. 2020. "Aristotle's Metaphysics," *The Stanford Encyclopedia of Philosophy* (Winter 2020 Edition), edited by Edward N. Zalta, URL= https://plato.stanford.edu/archives/win2020/entries/aristotle–metaphysics/.

Copan, Paul, and William L. Craig. 2004. *Creation Out of Nothing: A Biblical, Philosophical, and Scientific Exploration*. Grand Rapids, Michigan: Baker Academic.

Craig, William L., ed. 2002. *Philosophy of Religion: A Reader and Guide*. New Jersey: Rutgers University Press.

Craig, William L. 1994. *Reasonable Faith: Christian Truth and Apologetics*. Wheaton, Illinois: Crossway Books.

Crisp, Oliver, and Michael C. Rea, eds. 2009. *Analytic Theology: New Essays in the Philosophy of Theology*. Oxford, New York: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199203567.001.0001.

Feldman, Richard. 2003. *Epistemology*. New Jersey: Prentice–Hall.

DeWeese, Garrett J., and J. P. Moreland. 2005. *Philosophy Made Slightly Less Difficult*. Downers Grove, ILL.: InterVarsity Press.

Galluzzo, Gabriele., and Michael J. Loux, eds. 2015. *The Problem of Universals in Contemporary Philosophy*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781316181539.

Guta, Mihretu P. 2019a. *Consciousness and the Ontology of Properties*. New York: Routledge.

Guta, Mihretu P. 2019b. "The Two Natures of the Incarnate Christ and the Bearer Question." *TheoLogica: An International Journal for Philosophy of Religion and Philosophical Theology*, 3(1):113–143. https://doi.org/10.14428/thl.v2i3.17663.

Guta, Mihretu P. 2011. "Frank Jackson's Location Problem and Argument from the Self." *Philosophia Christi*, 13 (1): 35–58. https://doi.org/10.5840/pc20111314.

Hume, David. 2007. *An Enquiry concerning Human Understanding*. Peter Millican, ed. Oxford: Oxford University Press.
 https://doi.org/10.1093/owc/9780199549900.001.0001.

Hofweber, Thomas. 2009. "Ambitious, Yet Modest, Metaphysics." In David J. Chalmers, David Manley, and Ryan Wasserman. *Metametaphysics: New Essays on the Foundations of Ontology*. Oxford: Clarendon Press: 260–266.

Honderich, Ted. 1995. *The Oxford Companion to Philosophy*. New York: Oxford University Press.

Kant, Immanuel. 1929. *Critique of Pure Reason*. Trans., by N. Kemp Smith. London: Macmillan.

Kripke, Saul A. 1980. *Naming and Necessity*. Cambridge, Massachusetts: Harvard University Press.

Ladyman, James. and Don Ross. 2007. *Every Thing Must Go: Metaphysics Naturalized*. Oxford: Oxford University Press.
 https://doi.org/10.1093/acprof:oso/9780199276196.001.0001.

Ross, Don., James Ladyman and Harold Kincaid. eds. 2013. *Scientific Metaphysics*. Oxford: Oxford University Press.
 https://doi.org/10.1093/acprof:oso/9780199696499.001.0001.

Leitgeb, Hannes and André Carus. 2021. "Rudolf Carnap," *The Stanford Encyclopedia of Philosophy* (Spring 2021 Edition), edited by Edward N. Zalta. URL = https://plato.stanford.edu/archives/spr2021/entries/carnap/.

Lowe, E. J. 2015. "In Defence of Substantial Universals". In *The Problem of Universals in Contemporary Philosophy*, edited by Gabriele Galluzzo and Michael J. Loux. Cambridge: Cambridge University Press.

Lowe, E. J. 2009. *More Kinds of Being: A Further Study of Individuation, Identity, and the Logic of Sortal Terms*. West Sussex: Wiley Blackwell.

Lowe, E. J. 2008. *Personal Agency: The Metaphysics of Mind and Action*. Oxford: Oxford University Press.

Lowe, E. J. 2006. *The Four–Category Ontology: A Metaphysical Foundation for Natural Science*. Oxford: Oxford University Press.

Lowe, E. J. 2002. *A Survey of Metaphysics*. Oxford: Oxford University Press.

Lowe, E. J. 1998. *The Possibility of Metaphysics*. Oxford: Oxford University Press.

Loux, Michael. J., and Thomas M. Crisp. 2017. *Metaphysics: A Contemporary Introduction*. New York: Routledge. https://doi.org/10.4324/9781315637242.

Lycan, William G. 2007. *Philosophy of Language*. New York: Routledge.

Martin, C.B. 1980. "Substance substantiated." *Australasian Journal of Philosophy*, 58 (1): 3–10. https://doi.org/10.1080/00048408012341001.

Maudlin, Tim. 2018. "Philosophy Has Made Plenty of Progress". *Scientific American*, https://blogs.scientificamerican.com/cross–check/philosophy–has–made–plenty–of–progress/accessed March 1, 2021.

Maudlin, Tim. 2012. *Philosophy of Physics: Space and Time*. New Jersey: Princeton University Press. https://doi.org/10.1515/9781400842339.

McCall, Thomas H. 2021. *Analytic Christology and the Theological Interpretation of the New Testament*. Oxford: Oxford University Press.

https://doi.org/10.1093/oso/9780198857495.001.0001.

Melia, Joseph. 2003. *Modality*. Ithaca: McGill–Queen's University Press. https://doi.org/10.1017/UPO9781844653348.

Millard, Erickson J. 1985. *Christian Theology*. Grand Rapids: Baker Book House.

Moreland, J. P. 2018. *Scientism and Secularism*. Wheaton Illinois: Crossway.

Moreland, J. P. 1989. *Christianity and the Nature of Science: A Philosophical Investigation*. Grand Rapids, Michigan: Baker Book House.

Neta, Ram. 2014. *Current Controversies in Epistemology*. New York: Routledge. https://doi.org/10.4324/9780203123522.

Oderberg, David. 1999. *Matter and Form*: *Themes in Contemporary Metaphysics*. Wiley–Blackwell.

Paul, John. II. 1998. *Fides Et Ratio: On the Relationship between Faith and Reason*. Boston: Pauline Books & Media.

Peterson, Michael., William Hasker, et al. 2014. 5th edition. *Philosophy of Religion*. New York: Oxford University Press.

Peterson, Michael., William Hasker., et al. 2003. 3rd edition. *Reason & Religious Belief: An Introduction to the Philosophy of Religion*. New York: Oxford University Press.

Plantinga, Alvin. 2000. *Warranted Christian Belief*. New York: Oxford University Press. https://doi.org/10.1093/0195131932.001.0001.

Plantinga, Alvin. 1974. *The Nature of Necessity*. Oxford: Oxford University Press.

Price, Huw. 2009. "Metaphysics after Carnap: The Ghost Who Walks?" In *Metametaphysics: New Essays on the Foundations of Ontology*, edited by David J. Chalmers, David Manley and Ryan Wasserman. Oxford: Clarendon Press: 320–346.

Psillos, Stathis. 2002. *Causation & Explanation*. Ithaca. McGill–Queen's University Press. https://doi.org/10.1017/UPO9781844653317.

Quine, W. V. 1969. *Ontological Relativity and Other Essays*. New York: Columbia University Press. https://doi.org/10.7312/quin92204.

Rosenberg, Alex. 2012. *Philosophy of Science: A Contemporary Introduction*. 3rd edition. https://doi.org/10.4324/9780203807514.

Stump, Eleonore. 2016. *The God of the Bible and the God of the Philosophers*. Milwaukee, Wisconsin: Marquette University Press.

Swinburne, Richard. 2004. *The Existence of God*. 2nd ed. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199271672.001.0001.

Tahko, Tuomas E. 2021. *The Unity of Science*. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108581417.

Tahko, Tuomas. E. 2015. *An Introduction to Metametaphysics*. Cambridge: Cambridge University Press.

Tahko, Tuomas. E., ed. 2013. *Contemporary Aristotelian Metaphysics*. Cambridge: Cambridge University Press.

Tahko, Tuomas. E. 2008. *The Necessity of Metaphysics*. Ph.D. Thesis. Durham: Durham University.

Williamson, Timothy. 2018. *Doing Philosophy: From Common Curiosity to Logical Reasoning*. Oxford: Oxford University Press.

Williamson, Timothy. 2007. *The Philosophy of Philosophy.* Maden, MA: Blackwell Pub. https://doi.org/10.1002/9780470696675.