Articles

A Naturalist Theology
Christianity within a Holistic Paradigm

Finley Lawson

Abstract The root of the narrative that places naturalism in opposition to the central tenets of Christianity resides in the perception that a "naturalist" account of reality has no space for the nonmaterial/transcendental. That perceived dichotomy, this paper will argue, resides in a categorical error about the nature and number of things in reality. The apparent conflict assumes that one faces a binary choice between matter and non-matter, where the first of these falls under the remit of investigation by the natural sciences while the second does not, thus putting theology at odds with naturalism.

In contrast to this dichotomous account, the scientific holistic ontologies proposed by Michael Esfeld (philosopher of science) and Hans Primas (quantum chemist) provide a radically different account of foundational reality in which one can argue that there is no requirement to reconcile two fundamentally different kinds of "stuff." The contradiction between naturalism and Christianity is only apparent. It is based on our presuppositions about the world as described by science and our commitment to particular accounts of the nature of personhood. This paper does not claim that scientifically informed holism "solves" the naturalism versus anti-naturalism debate; however, it does provide a way to integrate naturalistic (scientific) metaphysics into our Christian thought.

Keywords Esfeld, Michael; Expansive Naturalism; Naturalistic Metaphysics; Non-Boolean holism; Ontological Holism; Primas, Hans

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This article[1] responds to the claim that the dominance of the naturalistic paradigm requires the Christian philosopher not only to reflect on the conditions and consequences of naturalism, but also to critically attend to the "naturalist challenge" according to which nothing exists, and/or can be known, separately from the material reality examined by the natural sciences. The paper challenges both the notion that a naturalist account requires a "materialist"[2] metaphysics and the idea that juxtaposing naturalism with the transcendent presents us with a genuine dichotomy. The narrative that places naturalism and the non-material in exclusive categories is, I argue, based on a categorical error about the nature and number of things in reality. That apparent conflict assumes that one faces a binary choice between matter and non-matter, where the first of these falls under the remit of investigation by the natural sciences while the second does not, thus putting theology at odds with naturalism.

In addressing this "naturalistic challenge" I will draw on the works of Michael Esfeld (philosopher of science) and Hans Primas (quantum chemist). Although they have proposed two different naturalistic (scientific) pictures of fundamental reality through their holistic ontologies, one can argue that both ontologies remove the requirement to reconcile two fundamentally different kinds of "stuff." Thus, the contradiction between naturalism and Christianity is only apparent, and is based on our presuppositions about the world as described by science and the nature of personhood. This paper does not claim that scientifically informed holism solves the naturalism versus anti-naturalism debate; however, it does provide a way to integrate naturalistic (scientific) metaphysics into our Christian thinking. To achieve this, the article is formed of three parts, of which the first provides a brief overview of what is traditionally meant by naturalism, and why even those accounts described as "expansive" do not do enough to address the perceived challenge to Christian philosophy. The second examines the grounds for claiming that a naturalist ontology can also be a holistic one, while the third part critically examines how scientifically informed holism may provide a way to integrate naturalistic (scientific) metaphysics into Christian thought. This final part addresses

1. A version of this article was presented at the Krakow 2024 conference "Christian Philosophy: Facing Naturalism," and the author is grateful for the constructive questions and dialogue with colleagues at both that event and ESPR 2024. The sections on Esfeld's and Primas' ontologies are adapted and expanded from *Christ, Creation, and the World of Science: Against Paradox* (Lawson 2023).

2. How materialism is to be conceived, and whether naturalism necessarily equates to materialism, will be examined as part of this paper.

Esfeld and Primas in turn, due to the substantive differences in the way they make room for the non-material in their metaphysics. Whilst at this stage it is not possible to claim that either provides a definitive "solution" to a naturalist Christian metaphysics, both invite the reader to question the necessity of making a binary choice between matter and non-matter, where the first of these falls under the remit of investigation by the natural sciences and the second does not, thus placing theology in conflict with naturalism.

The Naturalist Challenge

The challenge of naturalism resides in the assumption that a naturalist account necessarily requires the rejection of "supernatural forces" (gods, angels, demons, souls, ghosts etc.).[3] This is often perceived as pertaining to a supernatural "other" world separate from our own investigable "natural" world. This can be further compounded by the insistence that the supernatural includes "non-material beings," and also anything that is beyond the realm of investigation by the natural sciences, including "the aesthetic qualities of a painting, the moral significance of an action, the meaning of a gesture, the reasons for political conflict" (Ellis 2024, 2; see also: 2014, chap. 1). Such a reductive account of what is natural is known as scientistic reductionism, whereby the natural world only consists of the "physical" stuff (however that is to be construed). This extreme account of naturalism calls into question the validity of philosophy and theology in the manner of logical positivism—together with any scientific enterprise that requires emergent properties. In both *God, Value and Nature* (2014) and a recent paper delivered at the European Society for Philosophy of Religion (Ellis 2024), Fiona Ellis has argued against this form of naturalism, stating that a more "expansive" form is required. An expansive scientific naturalism allows for the genuine existence of science beyond the remit of physics and encompasses the realm of the social sciences. Whilst this allowance provides a greater source of hope for the philosopher and theologian it still, arguably, rests on an assumption that the natural sciences, correctly understood, only provide space for a reductive physicalist/materialist account of the world. This assumption of reductionism is identified by Primas (1983, 308) when he notes that "there still exists

3. There is an interesting question that falls outside of the scope of this paper as to why such definitions of supernaturalism are focused on "conscious" entities rather than the existence of the non-material and/or transcendent more generally, with the associated query as to whether such rejections of the supernatural are as strong when one moves to a broader conception of the non-material that goes beyond non-material agents.

a bias toward theoretical monism" with the aim of reducing all theories to an "all-embracing fundamental theory."

The explanations provided by scholars such as Ellis for a naturalistic account of the transcendent maintain that the existence of the transcendent "does not mean that one must establish a "superworld" of divine objects" (Tillich 1975, 8); rather, the transcendent can be understood as being expressed in and through the immanent (Ellis 2014, chap. 2) in the context of an "ecstatic" naturalism. Yet there is a risk that some of these arguments still assume that allowing the transcendent in a natural world requires finding a way to circumvent the (dualistic) supernaturalism versus (reductive) naturalism dichotomy. Ellis explicitly challenges such dichotomous thinking and argues that "once it is allowed that the transcendent can be modelled other than in dualist supernaturalist terms, then the tantalizing possibility opens up that the transcendent is already presupposed in a world whose immanent character is suitably complex [i.e. beyond the boundaries set out by scientistic accounts]" (Ellis 2024, 4). On this account, Ellis argues for an intertwining of the transcendent and immanent, rather than opposing metaphysical categories, and I am hopeful that the metaphysical account developed here provides a fruitful contribution that further supports such discussions. In line with Ellis, I argue that these dichotomies need to be challenged, and that a different kind of expansive naturalism, one that challenges the necessity of physicalism, can please both camps—the scientistic and the theistic. This account differs from Ellis' as it is based on a holism that creates space for the transcendent, the non-material and the divine by challenging our misperceptions about ontological structure. The following section will briefly set out the place of the non-material within science, and how Esfeld's and Primas' holisms provide space for a holistic naturalism that can leave room for the transcendent and/or non-material. Their accounts will then be examined in detail.

Is a Holistic Naturalism Possible?

Michael Esfeld (a philosopher of science) and Hans Primas (a quantum chemist) have provided accounts of foundational reality in which there is no requirement to reconcile two fundamentally different kinds of "stuff." In other words, the ontological dichotomy that pits naturalism against theism is removed. The contradiction between naturalism and Christianity becomes a matter of appearance rather than of ontological fact: it is based on our presuppositions about the fundamental nature of the world as described by science, and the nature of personhood. The assumption that strict naturalism provides the "correct" description of reality is closely

tied to the early-20th-century commitment to theory reduction in science, whereby it was argued that "all phenomena of life can be ultimately reduced to the laws of physics and chemistry" (Primas 1983, 308). Whilst the reductionist holds that "since organisms are built of matter, every biological question must be sought in terms of the fundamental theory of matter [i.e. physics]," holists, like Primas and Esfeld, emergentists, and (historically) vitalists all deny that physical laws can sufficiently explain "the phenomena of life" (Primas 1983, 309).

Thus, the question must be raised as to whether one can provide a naturalistic account that allows for the non-material. In this discussion we are concerned not with abstract objects, but rather with the nature of materiality as it shows up within our current philosophical discourse. Numerous recent volumes highlight the breadth of this perceived change away from comprehending matter as "physical stuff" (Davies and Gregersen 2014; Koons and Bealer 2010). Further, in *The Quantum Enigma* (2005), Wolfgang Smith distinguishes the corporeal world of our everyday experience, which is "the sum total of things and events that can be directly perceived by a normal human being" (2005, 27), from the (physical) universe examined by the physicist. These two "worlds," whilst ontologically unified, are epistemically distinct, with the physical universe being viewed entirely via measurement:

> Physical objects are then known by means of a suitable model, a theoretical representation of some kind . . . object and representation do not coincide . . . one cannot know or even conceive of a physical object except by way of a model, or theoretical construct. (Smith 2005, 31)

Such a view of the inaccessibility of the world "as it is" is a defining feature of the German transcendental idealist movement of the 18th and 19th centuries. But Smith and his colleagues are not requiring us all to abandon realism in its entirety, even though we are required to put aside naive realism and recognise, on this view, that there is not a one-to-one correlation between our perception of reality and the fundamental ontology that grounds reality. Science does not require that meaning is only attached to concepts that are "unambiguously defined in terms of fundamental physics" (Primas 1983, 308). Indeed, for many, including Primas and Esfeld, fundamental reality is itself inaccessible to scientific investigation, although this inaccessibility does not diminish its reality. Moving away from scientistic naturalism does not necessitate adherence to the false dichotomy of idealist ontology versus traditional materiality; however,

we must engage with pertinent questions about the nature of the material realm[4] (including questioning what is within the bounds of the natural). When we speak of naturalism as "the idea that all existent entities in the world are of a physical nature" (Ludwig 2018, 285), there is an implication that all the properties of those entities are also physical (or can be related to physical properties). Such strict reductionism leads to the view that all the objects of the special sciences, including mental properties and consciousness, are, or will be, entirely describable in terms of fundamental physics. The decomposition (or reduction) of a system into non-trivial subsystems (parts) is a feature of classical mechanics (or systems). At this level, the state of the whole is determined by the states of these subsystems. Whilst for some this level of reductionism is a fundamental part of their metaphysical framework, it is by no means necessitated by our current scientific findings, and is certainly not a position endorsed by Primas or Esfeld. According to Primas "most theories of chemical, biological and social systems are still limited by the classical paradigm of explanation presupposing in an unreflected way the separability of these systems" (1983, 325).

Strict reductionism therefore rests on an overly simplified view of the structure of scientific theories, and the assumption that complex systems are hierarchical. Complex systems can have "many modes of *description*, all equally valid and real" (Primas 1983, 315; emphasis added) but these "levels" do not exist independently of the whole. It is also crucial to realise that whilst it may be possible to describe the "higher" levels of the hierarchy in terms of "lower"-level descriptions, this may lead to overly complicated descriptions, or "the relevant patterns of the higher level are not put in evidence" through such a description. An excellent example from Primas is that whilst it *may* be possible to provide a molecular description of bee activity, such a description "would be entirely irrelevant to the understanding of, say, how honey bees signal the location of a rich source of nectar" (1983, 317). A similar argument applies to the matter of a naturalist explanation of reality. Whilst it may be possible to describe a painting in a manner that is distilled into a fundamental theory, this would undoubtedly fail to describe the aesthetic qualities, or do so only in a manner that becomes incomprehensible.

4. Questions at the interface of philosophy of mind and theology, concerning the nature of the physical realm and the emergence of consciousness/mind (a common theme of Nancey Murphy's work), are prevalent in panentheistic discussions. Whilst important, philosophical discussion of these matters lies beyond the scope of this paper.

Thus, the question becomes not whether the world can include the "non-material," but what we understand by "matter" and how we can comprehend the existence/nature of non-matter and its potential for transcendence. Davies describes the problem as follows:

> Apparently solid matter is revealed, on closer inspection, to be almost all empty space, and the particles of which matter is composed are themselves ghostly patterns of quantum energy, mere excitations of invisible quantum fields. (Davies 2014, 83)

For Davies, a naturalist (scientific) account of the world is increasingly pointing to a universe in which the fundamental ground is not "physical" but "mathematical"—i.e. the world appears to be most explicable in terms of mathematical formalism: our only option is to "treat the physical universe as if it simply *is* mathematics" (2014, 86; original emphasis). Yet even if Davies is correct regarding our approach to understanding reality, one must be careful to not confuse method and/or epistemology for ontology. Treating the world as "mathematical" may help with describing experimental findings, but it does little more than rename Kant's inaccessible noumenal realm when it comes to dealing with the relationship between the object and its representation.

This is well captured by Charles Minser when he argues that "material substance" is on the defensive, it being "reduced at most to scattered specks in the emptiness, its garrisons pulled together in isolated posts" (1978, 2). The more we have tried to comprehend the nature of "matter," the more we have found ourselves reducing our understanding not to that which is being investigated, but rather to "the interactions among them [the particles]. We do not say, what an electron is, but we do write laws for how it interacts with photons and other electrons" (ibid.). It is this reduction to relational descriptions (and the fact that these remain constant despite the changing account of the material) that drives the move to adopting a structural realist ontology. Yet, whilst it may provide us with a naturalist ontology, such structural accounts (as will be seen in Esfeld's moderate account) provide greater evidence for a transcendental reality in which relationality provides the ultimate ground or building blocks of reality, over and against bits of matter. This thinking is also echoed by Misner when he argues that this relationality within contemporary scientific accounts gives rise to a picture that is "radically anti-materialistic" (1978, 4), with the object of scientific investigation being the "immaterial constituents—the design relationships" (ibid.), not the "stuff" portrayed by scientistic naturalism.

Whether one stands with Misner and/or the structural realists in granting that the fundamental reality is, in some meaningful sense, non-material, there can be no doubt that we need to seriously engage with the challenge posed by the fact that the "co-essential" materiality and divinity of Chalcedon, the "rational soul and human flesh" of the Athanasian, and, in the Nicene creeds, "all that is, seen and unseen," all imply a dichotomous distinction of a kind that does not maintain its distinction in this non-matter-grounded ontology. The distinction that sets up the naturalist "against" the theist in finding space for the non-material and/or transcendent appears less a point of ontology and more an epistemic/methodological commitment to the scope and bounds of scientific investigation. Therefore, mindful of the contested nature of the "material," the fact that Primas and Esfeld point towards naturalistic ontologies which are holistic is less surprising than one may first expect. So it is that one finds oneself in a space in which scientific discussions, for many, have become more open to the acknowledgement of the existence of non-matter (even whilst what this looks like may be contested). The implication that remains for the debate between naturalism and Christian philosophy is that the kind of non-materiality allowed is fundamentally different to that required by the theist's commitment to the divine as non-matter and/or transcendent.

Given the uncertainty as to how we are to understand this foundational ground (informational, relational, structural, mathematical, etc), it seems premature to claim that they are dealing with distinct levels of reality. What is clear is that whether one sees reality as fundamentally holistic in line with Primas and Esfeld, or sits with Davies in that, at the very least epistemically, we must treat the world as mathematical, the "character of the material world casts severe doubts upon the consistency of the Cartesian separation [of matter and non-matter]" (Primas 1994c, 611). Yet here again we encounter the crucial distinction between the world "as it is" and what is required for scientific investigation—in that every experiment requires a fundamental ontological dualism in the form of the distinction between subject and object to proceed. Because of this necessity, Primas argues that a (naturalistic) materialist ontology must be incomplete, because it is "incapable of dealing with the complementarity of matter and spirit" (ibid.). This recognition by Primas (explicitly) and Esfeld (more implicitly) of the existence of that which is non-matter points away from scientistic naturalism (whilst allowing for expansive naturalism), as both view this non-material aspect of reality as "beyond" scientific investigation.

Therefore, it is still necessary to maintain an expansive naturalism that avoids the temptation of assuming an excessively reductionistic account

of the natural and/or material. Provided one does not adopt a scientistic form of naturalism, there is no reason naturalism and holism cannot be compatible. Whilst not wishing to over-labour the distinctions between metaphysical holisms, it is worth taking note of the differentiations made by Healey and Gomes. For the metaphysical holist, there is a certain extent to which the whole is not entirely determined by the properties of the parts, and it is possible to see a correlation here with the expansive naturalist who recognises that reality cannot be fully described by the scientifically investigable nature of its parts. Healey and Gomes identify three kinds of metaphysical holism:

> *Ontological Holism:* Some objects are not wholly composed of basic physical parts.
> *Property Holism*: Some objects have properties that are not determined by physical properties of their basic physical parts.
> *Nomological Holism*: Some objects obey laws that are not determined by fundamental physical laws governing the structure and behavior [sic] of their basic physical parts. (Healey and Gomes 2022, sec. 3)

All these accounts require a more expansive naturalism than that provided by the scientistic naturalist. The most comfortable (least contested) scientific "holism" is property holism, with its links to emergence. But for this paper, and in relation to the question of the potential compatibility of a rich Christian philosophy with a naturalist account of the world, I am interested in going "deeper," to consider how scientific metaphysics may be pointing to a substantive ontological holism. Ontological holism is, in some circles, viewed as out of favour, or as requiring some commitment to a form of neutral monism or "third kind" of "stuff." Whilst such a view is not necessitated by ontological holism, it offers greater support for the theist than reconciling a local materialism with a required "other" realm for the non-material divine. In addition, Primas adheres to a version of dual-aspect monism, and whilst Esfeld does not address what he means by "matter," there is at the very least a certain agnosticism in his approach towards what that matter is.

Primas and Esfeld propose two very different pictures of holistic reality (despite both drawing on a holistic account of reality grounded in quantum theory). Even so, they are united in seeking to provide the philosopher and/or theologian with a nuanced and deep metaphysics that speaks to our need for an ontology that has space for transcendence (although neither takes

this step themselves). Esfeld's and Primas' accounts hold out the promise of a coherent metaphysics, either by providing an alternative to the matter-transcendence dichotomy seen in much naturalistic discussion (Primas) or by challenging our conception of the nature of ontological dependence between objects and the relationships they stand in (Esfeld).

It is to these two positions that I will now turn, with a view to examining how we may reconsider the natural, and what a scientifically informed holistic ontology may mean for our understanding of a naturalistic philosophy of religion. I will assume an expansive account of naturalism (i.e. one that allows for the existence of things beyond the scope of scientific investigation). I do not believe that such a position places the theist on the side of anti-naturalism. One only needs to go down the anti-naturalist route if one maintains that the ontologies proposed here (and/or by others who challenge a Cartesian view of matter as points of "stuff") do not actually describe the "natural' world. In other words, anti-naturalism is only required for the Christian philosopher who, in a similar vein to the Christian materialist, argues that the local world of human experience is circumscribed by that which can be described/investigated by the natural sciences, with a global exception for the divine. The scientific ontologies described by Primas and Esfeld are not contentious positions—the science they build their metaphysics upon is well accepted. The potential disagreement arises from choosing their suggested ontology over other metaphysical descriptions. However, both acknowledge that their choices are guided by wider metaphysical commitments.[5] Esfeld's work with the model of ontic structural realism (OSR) is in good company, philosophically speaking, and Primas' account has been well discussed for its metaphysics, finding potential allies in such great names as Spinoza and Leibniz.

Both ontologies are "naturalist" in that they are constructed on the basis of findings from contemporary physics, and both are expansive in the terms described by Ellis and others in that they recognise and actively endorse the existence of features of reality that are beyond the investigative remit of the natural sciences. However, this is not the ecstatic naturalism of Tillich, whereby the transcendent "mean[s] that, within itself, the finite world points beyond itself. In other words, it is self-transcendent" (1975, 8).

5. For example, Esfeld stops short of adopting what I call "strong" ontic structural realism (SOSR), despite his argument in relation to quantum mechanics that there is no empirical way to establish what would be preferable between a metaphysics of relations and of individuals. His reason for adopting what I classify as a moderate form of structural realism (MOSR) is that the metaphysics of relations required by SOSR would leave one ignorant of the nature of the world "as it is."

What these inherently transcendent holistic ontologies require, and what they mean for the Christian philosopher, will form the basis of the next two sections.

A Naturalist Ontology of Relations

In its most basic version, holism requires that the sum of the object/system/reality (etc.) be "more than" its parts taken in combination. When one considers the ontological proposal of holism, there are several ways to understand the "more than" that is required within a naturalist (scientific) account of reality.[6] The first rests on a form of priority monism (as seen in Primas' work), whereby there are many concrete objects but only one is fundamental, and all other objects subsist on, or are derived from, this single basic object.[7] The second is what I call a "strong" ontic structural realism, of the kind adopted by Ladyman and Ross (2007; Ladyman 2020), in which the object-property distinction is conceptual,[8] contrasting with "standard"[9] metaphysics, where the "structure is fundamentally composed of individuals and their intrinsic properties, on which relational structure supervenes" (Ladyman and Ross 2007, 148). The final approach being considered here is the one adopted by Esfeld and his collaborators, which in many ways sits fuzzily between SOSR and Primas' monism: this atomistic holism maintains that atoms are holistically individuated in terms of the distances among them, but unlike SOSR, where structural relations have ontological priority relations and relata are mutually ontologically dependent. For Esfeld, "the distinction between object and properties, including relations and thus structures, is only a conceptual one by contrast to an

6. It is important to note that the options discussed here are not exhaustive of the ways in which metaphysical holism can be formulated within a naturalistic paradigm. Just as Primas and Esfeld are driven by wider philosophical commitments, it would be possible to consider these accounts, for example, as they relate to one's commitment to "thing" ontologies or to the necessity of individuation.

7. "Object" here is construed broadly, as Primas rejects the ontological division of the universe into discrete "objects"—though he does allow for the existence of a fundamental *Unus Mundus* foundation (an indivisible foundational reality).

8. Ontic structural realism, as proposed by Ladyman and Ross, holds that "all the properties of fundamental physics . . . [are] extrinsic to individual objects" (2007, 151). On this account it is the objective structure that is "ontologically fundamental, in the sense of not supervening on the intrinsic properties of a set of individuals." Ladyman and Ross go on to argue that even the individuality of objects is dependent on underpinning relational structure: "there are no things. Structure is all there is" (Ladyman and Ross 2007, 130).

9. This being the term adopted by Ladyman and Ross to refer to metaphysics that assumes the existence of individuals, in contrast to their own OSR metaphysics.

ontological one: properties, including relations, are modes, that is, the ways in which objects exist" (Esfeld and Lam 2011, 13).

Holding this in mind, such holistic ontologies stand opposed to both theistic dualism (whether local or global) and the wholly anti-transcendent ontologies of the scientistic naturalist. Fundamentally, they create a space in which a natural account of the world not only admits, but requires, something "more than." As noted above, though, in many senses this dualist-versus-naturalist dichotomy can be understood as arising from a specific view on the kind(s) and number(s) of things that exist. This is clearly captured in Esfeld's engagement with Descartes.

It may seem counterintuitive to examine a claim of ontological holism via the very dualism that creates the problematic dichotomy for the Christian philosopher, and yet Esfeld argues that Descartes' denial of Aristotelian essentialism and hylomorphism means that Cartesian dualism is in fact a monistic ontology. For Descartes, the physicality of any object is described in its entirety by its spatial extension. In the case of humans there is an additional "cogitating substance," but because everything is grounded in spatial extension (in that even the cogitating substance requires something spatially extended to ground it) there is no multitude of entities in existence (as in existence pluralism): rather, Descartes' position is more aligned with Esfeld's own as a form of priority monism.

Were Descartes not to have been committed to a single token of three-dimensional extension (and thus priority monism), one would be required to overdetermine ontology by positing the addition of independently existing matter, as well as absolute space and time. It is a similar motivation that drives Esfeld and Deckert in their minimalist ontology (2020): for Descartes, the unnecessary addition is "matter," and for Esfeld and Deckert it is the requiring of relata independently of, and prior to, the relations in which they stand. This continuous "matter" or "gunk" that exists to a greater or lesser extent in each point in space would then require further explanation as to why it is more or less dense at different points, with the need for further layers of explanation then starting to push existence pluralism in a direction such that it falls foul of Ockham's razor.

Whilst it might be surprising that Descartes' ontology points towards a monistic account, he is insistent that just because we can discuss the "parts" of this primary "whole" of matter-space, it does not mean that these parts (corporeal shapes/objects) can be individuated. It does not require the existence of individual, independently existing parts that compose the whole. This position (rejecting an ontology of individuals) has found stronger forms in both the traditional monism of Spinoza and the contemporary

holism of Esfeld, both of whom argue that the "whole" is prior to any constructed parts. What distinguishes Spinoza and Esfeld on the one hand, and Descartes on the other, is that for the former, wider demarcations or individuations between the parts are not ontological. Yet both the monism of Spinoza and the "dualism" of Descartes point to there being only one existent substance/entity in the physical realm—matter-space.

Esfeld's denial of discrete matter points rests on different grounds, but the foundational unity remains. As was the case with Descartes' matter-space, for Esfeld space must be understood as a continuum, with the "parts of space" (Esfeld 2001, 176) correctly construed as nothing more than demarcations (rather than proper parts). Because space is a continuum, any region and/or point in space is fundamentally relational—no point can be described (or exist) in isolation. When this is combined with a Cartesian (and Esfeldian) identification of matter with space it results in a metaphysics that is inherently holistic. Matter and space cannot be distinguished or divided into discrete parts (or entities), and this means that "all matter is one holistic system" (Esfeld 2001, 178). This interdependence is not a causal relationship, but an ontological holism (interdependence) involving all "material" things.[10]

This challenge associated with hard reductionism brings us—surprisingly for the materialist—to a holistic metaphysics. In *Part and Whole in Quantum Mechanics* (1998), Maudlin likewise argues that reductionism taken to its conclusion leads to "truly radical holism" (Maudlin 1998, 49). Once one starts to analyse the whole (whether that be a watch or a universe) in terms of progressively smaller and smaller parts, looking for that additional basic block of matter, there comes a point at which the particularization must cease in that one can no longer divide the object. At this point, Maudlin argues, we arrive at "partless" fundamental bits of matter: "these partless parts must be spatially unextended: they must be points" (Maudlin 1998, 48). Once one is dealing with indivisible points, the metaphysician or philosopher has arrived at field theory, which is fundamentally interdependent and ontologically relational. This descent into holism on the part of the

10. It is worth noting that "materiality" here is not defined by Esfeld—nor, indeed, does Primas give a detailed account of how we are to understand the unified substance which grounds everything (the *Unus Mundus*). This is both a strength, in that the holism could be conceived within the terms of an informational, austere realist, and/or neutral-monist metaphysics (for example), and also, when it comes to applying such metaphysical accounts to specific problems in the philosophy of religion and/or personal identity, a challenge. However, for the purposes of this paper the question of how exactly one is to understand the "stuff" of this holistic reality will be put to one side, as it does not impact on the broader question at stake here.

hard-line reductionist—an inadvertent conclusion that is the outcome of the scientistic naturalist's drive to reduce everything to physics—means that the assumption that dualistic (theistic) and naturalist accounts of reality are two mutually exclusive horns of an ontological dilemma need not necessarily be an accurate one.

Through his "holistic atomism," Esfeld presents an ontology that allows for the existence of individuals; however, these individuals or physical systems are not *in addition to* space-time, and these fundamental building blocks of reality cannot be understood in isolation. Due to the inherent entanglement required by Esfeld's realist interpretation of quantum mechanics, some of the properties exhibited by quantum systems are only there by virtue of the relationships in which they stand to each other (which he describes as "correlations of entanglement" [Weber and Esfeld 2013]). The reason that Esfeld's holism is of such interest for the Christian philosopher and/or theist is that it does not rest on a reinterpretation of how we understand the matter that constitutes matter points: he rejects any ontology of "substance." Instead, there is a transcendent (though he himself does not use this term) and fundamental (primitive) "stuff-essence" (Esfeld and Deckert 2020, 32) that permeates the universe.

This primitive stuff-essence can be understood as consisting of individual objects (it is a "thing"-ontology), yet it is not the individual atoms (or bits of stuff-essence) that individuate one tiger from another, for example: rather, it is their relative combination and position. Because it is not a traditional atomistic account, there is no intrinsic "thisness" distinguishing one object from another, or one atom from another. Indeed, the more we understand about the fundamental particles of physics, the clearer it has become that there are no intrinsically individuating features. Instead, what demarcates one object/atom from another can only be described by the state of the whole, which "fixes relations among the parts" (Esfeld and Lam 2011, 246). Thus, these individuating properties could not be possessed by an object existing in isolation. All properties that we traditionally consider intrinsic (including mass, charge, etc.) are primarily relations. For the Christian philosopher, then, this places a transcendent divinity and relations between creatures and their creator at the heart of our account of reality. On this model the objects, or relata, and the relations in which they stand are ontologically interdependent—one does not precede the other, but instead they have the "same ontological footing, being given "at once" . . . they are mutually ontologically dependent" (Esfeld and Lam 2011, 4).

If objects cannot be understood except as part of a holistic system (that itself is responsible for furnishing individuation), and individuation requires

the existence of a "whole," then one would do well to consider what, if anything, could be the solely existing object within a possible world? When one also considers the fact that, on this account of MOSR, the relata (or objects) that stand in and are individuated by their relations cannot *be* properties of anything else, but must rather be capable of having properties predicated *of them*, it then appears—albeit unintentionally so—that some foundational "thing" that all others stand in relation to is required. This foundational thing is also to be understood as a "world-making" property:

> If there is a plurality of things, there has to be something that relates these things so that they make us a world. . . . there has to be something that relates the things *in each world* . . . At least in so far as the actual world is concerned, position in the sense of spatial relation (distance) is what unites the world. (Esfeld 2021, 2; emphasis added)

Whilst it is possible to argue this is "merely" some kind of organisational field, there is nothing that says this transcendent, relational, and foundational "object" cannot be understood as God. As was previously mentioned, this is not a move that Esfeld makes, or is seeking to make, and by no means am I trying to imply that Esfeld's metaphysics proves or requires God to be the holistic system within which individuation occurs. However, the fact that our universe can be understood as having a holistic (and relational) foundational ontology based on a naturalistic account of the nature of reality does provide promising avenues of exploration for metaphysicians generally and the Christian philosopher specifically.[11]

Before moving on to discuss Primas' account of holism, it is important to note that there is currently no empirical method for determining whether a metaphysics of individuals or of relations would provide a more accurate account. Esfeld chooses to adopt a metaphysics of individuals (making his structural realist position moderate in comparison to the metaphysics of relations provided by Ladyman and Ross), but this decision rests on his dislike of the Kantian-esque commitment of SOSR according to which we are left ignorant as to the intrinsic nature of things (Epistemic Structural Realism). This gap between a relational metaphysics and our limited fundamental theories that can only account for or describe the relationships

11. The nature of this paper and the focus on naturalism means that there is not scope here to provide a detailed account of how this metaphysics may be understood, or a detailed explanation of how Esfeld and his collaborators arrive at a holistic primitive ontology. However, this is discussed in more detail in *Christ, Creation, and the World of Science* (Lawson 2023): see chapters 4 and 5 for the holistic turn.

between objects and not the nature of the objects themselves means that we are left with one or other of two choices:

> (a) maintain a belief in a metaphysics of individuals but accept this means we are unable to gain knowledge about the intrinsic properties of the individuals as far as they are intrinsic
> (b) discard a metaphysics of individuals in favour of a metaphysics of relations according to which at the fundamental level only relations exist. (Lawson 2023, 240)

The fact that this is a choice driven by wider ontological and/or epistemic concerns is important for the naturalism debate because it assumes an ontology of individuals in which theism and/or transcendent entities stand opposed to the fundamental building blocks of reality. Yet "there is no a priori argument that excludes a metaphysics of relations" (Esfeld 2004, 615), so it is important to question the implications of a naturalistic metaphysics of relations when seeking to understand whether there can be space for the transcendent. Whilst Esfeld provides a relation-oriented metaphysics of individuals, Primas' position is more challenging in that it questions ontological individuation, and it is to that account that we now turn—before subsequently offering some brief remarks on the potential implications of both of these for Christian approaches to the philosophy of religion.

A Naturalist Ontology of "No-Things"

Esfeld's account of holism challenges our understanding of the relationality of objects and requires us to reconsider where relations sit within an ontological hierarchy. Despite this, it allows us to continue with a metaphysics of individuals. Primas does not grant us this metaphysical comfort blanket. Like Esfeld, he begins with a consideration of Descartes, highlighting the key role that the "Cartesian cut" plays in all scientific endeavour. With the expression "Cartesian cut" Primas is referring to the requirement, within scientific experimentation, to make a distinction between the observing subject and the object being observed. For science to progress, it is necessary for the experimenter to establish the initial conditions of the experiment, but this "freedom" conflicts with the hard determinism required by strict materialism (Primas 1993). The question arises, where does it leave the naturalist if it is possible to distinguish between experimenter and experiment (whereas the scientistic naturalist would have to accede that both "objects" are equally determined, and "physical")? Whilst at first glance it

may appear that these dual commitments imply that Primas is committed to the ontological dualism spurned by the naturalist, he in fact argues that our current account of reality points to "an *ontological monism*, combined with an *epistemic dual-aspect approach*" (2009, 171; original emphasis).

We have already seen how Esfeld's monism gives rise to a holistic ontology of individuals, so what does Primas' account bring to the conversation on naturalism? Whilst Esfeld shifts the challenge of describing how any mental or transcendent aspect of reality is to be understood over to the philosopher and/or theologian, Primas confronts the issue head on. In "Endo- and Exo- Theories of Matter" (1994a) he argues that the Cartesian distinction between mind and matter, despite its absurdity, "is a temporarily useful fiction . . . that matter does not contain spiritual elements in an essential way" (1994a, 165). Thus, this "removal" of the transcendent is performing a heuristic role only. He goes on to argue that:

> Our distinctions between an atemporal material, an atemporal mental, and a temporal domain do not imply an ontological partition of the world—it is *chosen as a partition of the universe of discourse to facilitate the discussion.* (Primas 2009, 24; emphasis added)

This step to remove the non-material/transcendent from our understanding of the "natural" world is not the ontological commitment of the scientistic naturalist, but rather the move of an expansive naturalist. Primas is clear in his writings about the importance of ensuring that science does not overreach itself: the non-material is not within the scope of scientific investigation, but it *is* very much within the ontological structure of natural reality. In as much as he adopts the Cartesian split where scientific method is concerned, Primas also argues that we are deeply misguided if we mistake this method for ontology:

> The experimentally well-confirmed holistic character of the material world casts severe doubts upon the consistency of the Cartesian separation of the *material* reality from the *spiritual* one . . . [despite this] *present day experimental science still requires an epistemological* dualism. (Primas 1994c, 611; original emphasis)

The key commitment (as noted earlier in this section) is that we need an *epistemological* dualism to make sense of the world, but this does not reflect the nature of reality as it is. Whilst Esfeld backs away from a metaphysics that entails the inaccessibility of the world as it is, for Primas there

is a fundamental incompleteness in contemporary scientistic naturalism. This is because the scientific (but not naturalistic) description "as at present conceived, forces us to leave out crucial parts of reality" (1993, 250). As will be explained further shortly, Primas' holism is committed to a rejection of atomism, and (to use Esfeld's terminology) rejects any "thing"-ontology that would allow for a plurality of objects (see: Primas 1991, 165; 1994c, 611–13). Primas' holism therefore denies an ontological commitment to "context-independent objects" (Primas 1994c, 629) and, indeed, even the relational framework provided by Esfeld's holism does not furnish these (the relationality provides context). Furthermore, Primas' epistemological dualism is framed by the fact that "our ability to *describe* the world cannot go further than our ability to isolate objects" (1994c, 626; emphasis added). Crucially, this does not limit the natural world to that which is describable by science; instead, it simply recognises our linguistic/epistemic limitations.

When Primas rejects a "thing"-ontology he is arguing against the scientistic naturalist's claim that everything can be described in "material" terms: one mistakes the scientific project if it is viewed as trying to describe "the material reality in terms of some elementary building blocks" (1998, 67), and on the basis of the "outdated" belief that reality can be explained with reference to "independently existing atoms" (1998, 87). In undertaking the reductionist project, whether as a scientist or a philosopher, one is assuming a particular "thing"-ontology, which is out of step with the findings of quantum theory (Primas 1998, 88). The latter, according to Primas' interpretation, presents a metaphysical account of the world that not only provides a radically holistic "no-thing" foundational structure, but also registers the fact that the "*unbroken wholeness* of the material world . . . cannot be observed directly by our five senses" (1994b, 335; emphasis added). Here again, as with Esfeld's account, we see that this version of monism is naturalistic in being grounded in the findings of physics, even while it calls for an expansive approach to naturalism.

How one begins to carry out individuation in the context of such an ontology is a theme developed throughout his writings, but some of the founding principles for his more metaphysical work can be encountered in his treatise on quantum chemistry and reductionism (Primas 1983). The mistake we make in assuming a classical (Boolean) account of reality is to assume that there are bare facts, and what Primas terms "absolute objects" that can be understood as existing independently. There is no "God-given" (Primas 1983, 308) decomposition of reality. There are "no absolute objects or absolute patterns" (Primas 1983, 325); instead, *every* observation, every description, is an exercise in identifying what is essential and what

is accidental *in this instance*. In doing this we introduce Boolean categories (e.g. material vs non-material) and deliberately exhibit a "*lack of interest* [in certain components] *which breaks the holistic unity of nature*" (Primas 1983, 325; original emphasis). This makes everything conditional on the "context," and the latter is created through the erection of well-defined conceptual/metaphysical barriers that *create* a non-holistic ontological structure to which one can apply Boolean logic. It is this contextualized decomposition that gives rise to the appearance of paradox or conflict in the conversation pertaining to matter versus non-matter, or naturalism versus theology. The conflict arises because we misconstrue this "deliberately chosen abstraction" as brute ontology, instead of recognising that every phenomenon/object "is created by abstractions alone and does not otherwise exist" (where this includes objects perceived through our senses and examined via the natural sciences) (Primas 1983, 327).

Because Primas' ontology is so different from how the "natural" is scientistically conceived, it is worth spending some time unpacking his account of reality. There is a strong connection (at least at the conceptual level) between his partless (non-Boolean) holism and Ladyman's account of Strong Ontic Structural Realism (SOSR). Although Primas does not shift to a metaphysics of relations (at least, not in those terms), he does take the step that Esfeld seems reluctant to embrace—by moving to a metaphysics in which we cannot know the fundamental structure of the universe. Ladyman describes this lack of access to the reality of "objects" in themselves in SOSR as the fact that "individual objects are constructs . . . individuals have only a heuristic role" (2020, sec. 4). There are clear correlations with Primas' earlier claims that "objects do not yet exist, we have to create them" (1993, 254) and "the world is not made out of some building blocks . . . these [the perceived building blocks, e.g. electrons] are just manifestations of the material reality" (1994c, 619). For Primas, this metaphysics is grounded in the following ontological starting point:

> Since all predictions of quantum mechanics are experimentally well corroborated, and since the counterintuitive results of quantum theory are no logical paradoxes, we take the holistic structure of the quantum world as a true feature of nature. (Primas 2003, 253)

Whilst Ladyman's metaphysics does not have the same scientific grounding, and indeed non-Boolean holism could be arrived at without reference to quantum theory, the fact that his account *is* scientifically grounded calls into question the necessity of an antagonistic relationship between Christian

philosophy and naturalism. What we perceive as individuals are not fundamental objects, but "represent patterns of reality . . . Elementary or composed "particles" . . . are not primary but rather secondary and derived" (1994c, 628). Not only are these "elementary" particles not primary, but even realist interpretations of quantum theory refer "only to a fictitious theoretically immanent reality, and not to the ultimate reality" (1994c, 622). This ultimate reality (which Primas terms the *Unus Mundus*) exists as a "primordial unity, not yet divided into two [res extensa and res cogitans]" (Primas 1993, 249), and all "*decompositions of the world are neither given a priori nor determined by first principles*" (Primas 2007, 27; original emphasis). On this account, the ultimate reality is "much nearer to Plato's ideas, according to which the attempt to divide matter again and again results in mathematical forms" (1994a, 174). This is echoed in Davies' account of the physical universe as mathematical form noted above. Individuals are "created" when we "isolate a phenomenon and assign individuality to it" (Primas 2007, 11–12) within a particular context, and this does not create an entirely amorphous ontology—the scientific picture of the world is built on our "knowledge of observable patterns or modes of reactions of systems" (Primas 1998, 96). However, instead of arriving at Esfeld's relational holism, where individuals and their relations are ontologically mutually dependent, Primas argues that we should recognise that "individuals" do not exist *a priori*. Thus, we should adopt a non-Boolean holism, "a whole which has no parts" (2007, 27) and that requires us to choose "an appropriate partition of the universe of discourse" (Primas 2007, 27). These partitions are created when we decide which features are relevant and irrelevant, allowing us to create "fuzzy" or non-Boolean categories (or boundaries) around "individual objects."

Within Primas' account what is striking is his commitment to the non-material/transcendent. He specifically identifies the realm of endophysics as that which studies the "realm of non-spatial, non-mental, timeless, but nevertheless real entities" (1994a, 166), stating that "neither nowness nor consciousness can be identified with any property known to physics, so *we relate these phenomena to the nonmaterial domain*" (2003, 95; emphasis added). If we are finding challenges in demarking the material and non-material realms "it is because no such line of demarcation exists" (Primas 1983, 331). Our descriptions are caricatures "exaggerating some aspects by deliberate simplification and permitting extravagance" (Primas 1983, 331). The caricature is not intended to present brute fact, but rather to allow new patterns and/or levels of description to arise. Yet the most hopeful description for the Christian philosopher engaging with Primas' non-Boolean holism comes when he states that:

> We do not restrict the [nonmaterial] tensed domain to the inner world of private thoughts . . . *We relate the tensed domain to a mental world which we consider as fundamental to the nature of existence and being*. According to this view, "mind" operates as a principle beyond individual consciousness and is not restricted to the "human mind." (Primas 2003, 92; original emphasis)

Where Esfeld's account furnishes potential for the transcendent, that proposed by Primas explicitly endorses it. This is not to imply that wholehearted adoption of non-Boolean holism represents an easy trade-off for the Christian philosopher or scientist—it raises a number of methodological and ontological questions.[12] Nevertheless, it is this deep commitment to a timeless ultimate reality (Primas 2003) imparting fundamental order and grounding to the universe that provides a rich context for exploring the transcendent within a naturalist framework.

In his 2003 paper, we find Primas' most explicit description of how we should understand the material/non-material "divide." He draws heavily on Wolfgang Pauli's work, arguing that:

> Quantum theory describes the material world in a basically holistic way. Generalizing this result beyond the material world to ponder upon a holistic conception concerning mind and matter. Pauli . . . suggested that the mental and material domain are governed by common ordering principles and should be understood as "complementary aspects of the same reality." (Primas 2003, 90)

Taken in combination, these two commitments (the extension of the nonmaterial domain beyond individual consciousness and the commitment to a dual-aspect account of reality) require the naturalist to move away from Cartesianism to a "primordial unity, not yet divided into two" (Primas 1993, 249). This brings us back sharply to one of the central premises of this paper: namely, that there is space within a naturalistic account for a non-material and/or transcendent aspect of reality, provided that (a) one does not require it to be accessible through scientific enquiry (expansive naturalism) and (b) we revisit our metaphysical commitments pertaining to the "stuff" of fundamental reality.[13] The concluding section of this paper will briefly

12. Discussion of these potential challenges goes beyond the scope of this paper, but some of the problems raised specifically in relation to the incarnation are discussed in chapters 6 and 7 of *Christ, Creation, and the World of Science* (Lawson 2023).

13. For example, whilst this paper draws certain distinctions between the "non-material" and "matter," these are made for heuristic purposes in order to better proceed with the

outline how these holistic ontologies may be applied to concerns that are key for Christian philosophy, particularly in respect of divine personhood.

SOME REMARKS ON THE IMPLICATIONS FOR CHRISTIAN PHILOSOPHY OF RELIGION

So far, this paper has focused on setting out two accounts of ontological holism that can be viewed as naturalistic (on an expansive account of the latter) because they provide an ontology grounded within the reality described by contemporary science. The reason why these accounts disrupt the naturalism-versus-holism debate is that whilst the non-material and/or transcendent aspect of reality sits beyond direct examination by physics, both accounts endorse the reality of something "more than" the world described by science, with this "other" being central to a complete account of the nature of reality (even if we cannot directly access it). What is interesting for the expansive naturalist is that both Esfeld and Primas hand this task of further examination over to the philosopher and theologian; this final section thus picks up where the (non-theistic) holistic naturalist stops, and explores some implications for philosophical theology.

The present paper is not intended to provide a definitive answer to what the naturalist's God may look like within a holistic ontology: indeed, Primas' and Esfeld's ontologies provide very different accounts of the nature of divine personhood and the incarnation (see, for example, Lawson 2023; chapters 6-7]). To examine the details of individual theological commitments in relation to holism would take up more space than is allowed here. However, before concluding it will be worth noting some of the opportunities that exist for the theistic naturalist within this framework, along with some areas meriting further research there.

I would argue that one of the areas in which the impact of a holistic ontology is best seen is through an examination of the incarnation (at least in terms of understanding the united person of Christ). The reason for choosing this deeply theological issue for philosophical discussion is because issues raised by the transcendent for human personhood are compounded when brought into dialogue with the divine in Christ. This echoes Gregersen's argument in "Deep Incarnation and Chalcedon" that the challenge for the Christian philosopher/theologian is that Chalcedon does not "specify the characteristics of the "divine nature" [or] the "human nature," and … does not tell us anything about their interrelation in the

discussion: they explicitly do not exist within Primas' monism, and arguably do not exist, as traditionally understood, within Esfeld's relational ontology either.

concrete person of Christ" (Gregersen 2020, 275). Gregersen provides an excellent systematic overview of how this relationship (the human-divine) has been understood in theological contexts, and it is worth drawing out from this some of the key features of personhood that could be reimagined within a holistic naturalist account of reality along the lines of the ontologies provided by Primas and Esfeld:[14]

DI1. Athanasius argued that "the particular human body of Jesus needed to be neither separated from other human bodies, nor from the materiality of the cosmos at large" (Gregersen 2020, 260). This draws on the concern raised by naturalists that the transcendent requires a "superworld" of divine entities "beyond" our own. Implicit in their account is the assumption that the materiality of the "cosmos" is ontologically separated from anything that could be transcendent, as the transcendent goes beyond the natural.

DI2. The stoics provided an ontology whereby there was "a co-extensive inherence of two elements within a general metaphysical scheme . . . the idea of mutual co-inherence is central" (Gregersen 2020, 265–66). In other words, this is the kind of ontological account that is rejected by the scientistic naturalist because (it is assumed that) only one aspect of this can be investigated using the scientific method. It is this metaphysical dualism that places naturalism and Christian philosophy at odds.

DI3. Gregory of Nyssa's understanding of the infinitude of God provides several points for consideration: as infinite reality, God "must be equally close to the material as God is to the spiritual world" (2020, 270), and this allows us to understand the "logic" of the incarnation in that infinite unity means that there is no greater distance between God and the material than between God and the non-material—this being the challenge of how one is to understand genuine transcendence within a dualistic metaphysics. This challenge would also include accounts such as Tillich's ecstatic naturalism, where the transcendent is "revealed" through the material, as it still assumes a degree of separation in kind, or of ontological level, for the transcendent.

DI4. Finally, drawing on Schleiermacher, Gregersen notes that "subsuming divinity and humanity under the same umbrella . . . [implies] that the two natures meet one another at the same level, while tacitly presupposing

14. The ensuing points DI1-4 and DI1'-DI4' (excluding explicit references to naturalism or the philosophy of religion), are reproduced from Lawson (2023, 335).

a predefined contrast between divinity and humanity" (2020, 276)—this being, in effect, a continuation of the issue noted in DI3. Similar ontological presuppositions underpin the naturalist's challenge to the Christian philosopher.

These metaphysical challenges regarding a non-materialist (non-scientistic) account of personhood in relation to the incarnation and, fundamentally, the existence of the transcendent, prove consonant within the holistic ontologies noted within this paper:

DI1'. Primas' non-Boolean holism posits that there is a fundamental unity within the cosmos (the *Unus Mundus*) which cannot be ontologically distinguished in the discrete categories of spirit and matter (to use Primas' terminology). Thus, the distinguishing of Christ, or the transcendent, from the universe, and the separation of other entities into a "supernatural" world, may be viewed as a contextually chosen decomposition, not a "brute fact" about the "separability of nature" (Primas 2007, 27). On this account, there is nothing that is "beyond" the natural world. The appearance of being "beyond" stems from our inability to investigate or access the *Unus Mundus*, and our own preconceived contextualization of the universe into the binary categories of "matter" and "non-matter" that we incorrectly take to be ontological.

DI2'. Following Pauli, Primas (2003, 90) argues that the mental and material domains are "complementary aspects of the same reality." Less explicitly, Esfeld and Deckert (2020, 8) recognise that a radically reductionist worldview cannot include the non-material, and in SOSR the co-inherence may be understood as an aspect of the underlying "structure" of reality. One could argue that this co-inherence is what Tillich is describing as ecstatic naturalism when he argues for the revelation of the transcendent through the immanent.

DI3'. As with DI1' this can be understood in the context of the fundamental unity of reality, whereby the distinction between humans and angels is not ontological, but dependent upon the chosen partition. Likewise, if a fully relational ontology is adopted (not Esfeld's MOSR), this may provide room to consider the ontological interrelatedness of the cosmos, which again would put in question the requirement for a "supernatural" realm. On the other hand, it would allow one to classify the "supernatural" as that which stands outside of scientific investigation.

DI4'. Schleiermacher's commitment has its closest reflection in Esfeld and Lam's mutual ontological dependence between relations and their relata

(see: Esfeld and Lam 2011, 4). The ontological co-dependence within Esfeld's ontology provides a philosophically interesting space in which to examine how transcendence may be conceived as an ontological relation within a naturalistic framework.

The biggest barrier at this stage to a fully (expansive) naturalistic account of the transcendent within holistic ontology is the lack of information on the nature and/or place of conscious beings within their ontology. There is much more that could be said about the ways in which holistic ontology may provide space to reconceptualize our account of transcendence, but to provide an exploration of these topics in depth would be to go beyond the scope of this paper. However, this article does identify two naturalistic accounts that place the transcendent at the heart of ontology (even if they do not provide the pertinent details). So, to borrow from Primas, the thoughts drawn together here regarding the place of holistic ontology in supporting a positive account of naturalism for the Christian philosopher "are of a fragmentary and speculative character so that this . . . should be considered as an exercise, whose aim is not to solve any concrete problem but to discuss new ways of thinking" (Primas 2003, 113). By this I mean that a holistic metaphysics holds out great promise for progressing our understanding of the relationship between naturalism and Christian philosophy, and in challenging the "correctness" of the assumed materialist (scientific) vs dualist (theistic) dichotomy that underpins the argument to the effect that naturalism stands in opposition to the central tenets of Christianity or Christian philosophy. Hopefully, this paper has shown that holistic ontology positively reconceptualizes our understanding of the kinds of natures or substances involved in asserting a transcendent divinity. However, there are a great many details still to work out, both in terms of the implications for whether a "classical" theism, with its distinction between the world and God, can be maintained, and with respect to how we are to understand that issue, so carefully avoided, of the place of conscious beings in a holistic universe.

Conclusion

The expansive naturalist argues that one must move to a "naturalistic" account of human nature, in which the transcendent is revealed through the immanent and the dichotomy putting naturalism and Christian philosophy at odds with one another is therefore removed. However, I am not convinced that this move is necessary, or that it is successful. Whilst expansive naturalism nominally rejects "dualism," I argue that it simply reinstates it within

another space. If the transcendent is revealed *through* the immanent it must still be, at some level, something other than the immanent. This raises the question of what kind of thing is being revealed through the "natural." Ellis argues that the naturalist's resistance to transcendence is "premised upon the assumption of . . . rejecting [God as] a supernatural 'something else'" (2024, 3). This "othering" is overcome if the transcendent and immanent are "intertwined," but this language still implies two kinds of things being brought together within one world/reality—much as "something like the claim that the two natures are mixed together into one new nature [in Christ]" (Cross 2002, 2) reinforces a "two-category" approach to the "kinds" of things involved in the incarnation. Do we really need to "expand" the natural to include God? Are we not mistaken in assuming that "natural" is synonymous with "contingent" or "created"? Is not a stronger version of reality one in which God is the underpinning feature, or organising principle, of reality?

The holistic accounts provided by Primas and Esfeld can be adopted by the Christian philosopher and/or theologian to avoid the need to "expand" the natural to include God. Instead, one is invited to seriously reconsider the presuppositions grounding the assumption of a dichotomy, and ask "What if?" What if the portrayals offered by Esfeld, Primas and others are based on an accurate word-world connection? What might this holistic, naturalistic ontology look like and, more importantly, what might it mean for our understanding of the nature of the transcendent? I believe that a combination of something like Esfeld's fundamental relationality with Primas' unified *Unus Mundus* furnishes a rich ground for a relational, transcendent reality in which the non-material (whilst not accessible to the methods of science) is something that is a foundational part of the "natural" world. However, it is not all plain sailing here: such an account raises a number of questions for the philosopher, including whether such approaches require the adoption of a pan(en)theistic account of divinity, how (in the context of Primas' account) one might provide space for genuine individuation between persons (human and divine), and, as was noted earlier, the issue raised by the fact that neither Primas nor Esfeld engage with how one should understand conscious beings in the context of their metaphysics. Yet this need for further investigation does not, and should not, rule out the validity of the initial principles involved: namely, the idea that by questioning the perceived dichotomy, holistic naturalism provides us with a way to positively integrate naturalistic (scientific) metaphysics into our Christian thought.

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