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ARTICLE

Physicotheology in Kant's Transition from Nature to Freedom

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Abstract

This article examines Kant's treatment of the design argument for the existence of God, or physicotheology. It criticizes the interpretation that, for Kant, the assumption of intelligent design satisfies an internal demand of inquiry. It argues that Kant's positive appraisal of physicotheology is instead better understood in terms of its polemical utility for rebutting objections to practical belief in God upon which Kant's ethicotheological argument rests, and thus as an instrument in the transition from theoretical to practical philosophy. Kantian physicotheology plays this role (a) by criticizing alternative speculative accounts of the ground of nature, and (b) by analogizing from the structure of finite rational agency in order to represent more clearly the action of an ideal agent.

Keywords: teleology; design argument; natural theology; ethicotheology; purposiveness

1. Introduction

Kant's view of the relation between science and religion is now recognized as more complex than what is suggested in his image as the destroyer of theism. On the old picture, whereas the constructive part of the critical philosophy secures the claims of empirical science, its negative part undermines the claims of traditional theology by attacking the leading arguments for the existence of God and the immortality of the soul. Recent scholarship has recast Kant's criticisms of speculative theology as broadly in step with the Pietist spirit of liberating religion from being a scholastic affair and emphasizing instead the suitability of Christianity for the common understanding (*gemeiner Verstand*). On this way of reading Kant, his famous remark that he had to deny himself knowledge in order to make room for faith is a programmatic statement of a certain kind of harmony of scientific and moral rationality (Neiman 1994; Wood 1999; Chignell 2009; Palmquist 2016; Pasternack and Fugate 2021; Goldenbaum 2021).

The object of this article is to examine the role of physicotheology in Kant's strategy for harmonizing reason and faith. Briefly, physicotheology is the doctrine that facts about natural order license belief in supernatural design. Scholarly interest

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in Kant's treatment of physicotheology is well-motivated. Kant consistently praises the design argument as deserving 'to be named with respect', and as being the 'clearest and most appropriate to common human reason' (OPA, 2: 117; A623–4/B651–2).[1] The latter part of the *Critique of the Power of Judgement* provocatively suggests that, given the peculiarities of human cognition, physicotheology justifies appeal to the 'concept of an intelligent world-cause, as a merely subjectively appropriate concept' for the sake of natural science (*CPJ*, 5: 437). The Canon of Pure Reason chapter of the *Critique of Pure Reason* contains perhaps his strongest statement: 'All research into nature is … directed toward the form of a system of ends, and becomes in its fullest development physicotheology' (A815/B843–4; see also FI, 20: 205; *CPJ*, 5: 411; UTP, 8: 182; Th-Pölitz, 28: 1070; Th-Baumbach, 28: 1277–8).

Accordingly, a number of scholars have sought in Kant's positive appraisal of physicotheology materials that might be usable for reconciling theoretical and practical reason from a broadly religious standpoint (Falkenburg 2005; Chignell 2007; Pasternack 2011a; Winegar 2015; Chance and Pasternack 2019). The general strategy runs as follows. Belief in intelligent design is compatible with, even if not necessitated by, the requirements of empirical research. Completeness in empirical cognition, so the Kantian argument should go, can be satisfied by the sort of contingent unity of empirical laws that is possible through an idea of the whole of nature as purposively ordered. Such an idea, however, points beyond nature to a highest being as its source. This theoretical basis for belief in God is then recognized as conformable to the postulate of God arising from the demands of practical reason – specifically from the demand that nature should be conceived as hospitable to the realization of moral ends. That two independent sets of considerations recommend belief in one and the same ideal object provides the subjective foundation for the bridge between the epistemic and moral standpoints. The strategy thus amounts to showing how orientating empirical scientific reason toward a view of nature as intelligently designed conduces to the moral ends of reason. As Brigitte Falkenburg (2005: 127) puts it, Kant wants to show that

> natural science serves the essential and necessary ends of reason by successfully employing the rational idea of a unified, all-encompassing order of natural appearances as a guide to the expansion of the cognition of nature and thereby at the same time strengthening doctrinal belief in God as the creator of this lawful order.

Kant's argument for the existence of God as a necessary practical postulate is more convincing than his advocacy of intelligent design in nature. In any event, I shall not assess the former in what follows.[2] My aim instead is, first, to dispute the role of the intelligent design hypothesis in the strategy laid out above and, second, to propose an alternative interpretation of Kant's physicotheology. Negatively, I argue that belief in God is not well supported by theoretical considerations, despite what Kant himself sometimes seems to suggest, and that his preference for theism does not, on closer examination of the texts, rest on such reasons. Positively, I show that physicotheology plays a propaedeutic role in Kant's attempt to overcome the gap between nature and freedom. Physicotheology takes its direction from moral theology, which it aims to bolster by supplying a distinct representation of nature as suited to the intentional

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action of a divine mind, thereby countering objections to the coherence of theistic belief. In other words, its role in addressing the problem of the transition from nature to freedom is polemical, in that it aims to defend a morally necessary proposition against dogmatic denials.[3]

The article is structured as follows. Section 2 criticizes the alleged theoretical value of physicotheology in extending empirical cognition. Section 3 turns to the systematic relation between physicotheology and Kant's moral argument for the existence of God, specifically as this relation is presented in the *Critique of the Power of Judgement*. Finally, section 4 examines Kant's polemical use of physicotheology as preparation for moral theology. In this role, physicotheology turns out to be concerned neither with the unity of empirical cognition nor with the nature of organisms but instead with the question of what kind of world an ideal moral agent would create.

A textual note before we proceed: Kant's criticisms of physicotheology in the theoretical context are broadly consistent across the first and third *Critiques* and related texts such as the 1788 essay 'On the Use of Teleological Principles in Philosophy', and I draw on all of these in section 2. My principal text for how physicotheology and moral theology interact in Kant's envisioned unity of theoretical and practical reason is the third *Critique*. While each of the three *Critiques* contains a version of the argument for belief in the existence of God based on the requirement of a conception of nature as suited to the attainment of moral ends, the one that spans the second half of the third *Critique* is the most detailed and, in some respects, a new development in the critical system.[4] Part of the novelty lies in how Kant puts to use the idea of God drawn from teleological reflection on nature towards the systematic aim of transitioning from nature to freedom. To fill out this account, I make use in sections 3 and 4 of the *Lectures on the Philosophical Doctrine of Religion* (henceforth, *Lectures*), a transcription of Kant's courses on natural theology in 1783–4 and 1785–6. These notes contain a rich treatment of the central problem physicotheology aims to address, namely, to show the possibility of nature as a product of divine wisdom for the sake of morality.[5]

2. Physicotheology and the needs of inquiry

Kant's statements on intelligent design are notoriously ambivalent.[6] He is steadfast in his view that, among all the theoretical proofs of God, the design argument is the one best suited to the common understanding. He deems it 'worthy of honour' and lavishes praise on its most important German representative in the second half of the eighteenth century, Hermann Reimarus (*CPJ*, 5: 476).[7] He further suggests that the design argument contributes to scientific practice by 'extend[ing] our information about nature', and so is to be encouraged (A623–4/B652–3). In the third *Critique* Kant argues that certain natural beings (organisms) are only intelligible to us through the concept of an intentional cause, and that such beings are the 'basis of proof . . . of the dependence of these things on and their origin in a being that exists outside the world and is (on account of that purposive form) intelligent' (*CPJ*, 5: 399).[8]

At the same time, Kant limits the force of the design argument. In both the first and third *Critiques* he argues that, despite its intuitive appeal, the conviction it produces is deceptive. This is because physicotheology by itself does not yield a determinate notion of the most real being, but only of a very powerful and very wise one. Moreover, the argument only renders the idea of an intelligence giving form to

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pre-existing matter but not to an idea of the creator of matter itself. It thus yields the idea of a being more like the demiurge of Plato's *Timaeus* than the creator *ex nihilo* of Christianity. Most importantly, he argues that, although we have no choice but to represent natural objects as designed, nothing about their existence gives us any clue about the final end of creation, or of why anything at all exists. He concludes that, while physicotheology might be usable as a support for other kinds of theistic proof, by itself it is not up to the task. In the *Lectures* he states unambiguously that 'theology cannot serve to explain the appearances of nature to us' (Th-Pölitz, 28: 998; cf. 28: 1004; see also A627/B655, A637/B665; OPA, 2: 119; *CPJ*, 5: 399–400, 440–2; UTP, 8: 159).

The proof for which physicotheology should be usable is Kant's argument for belief in God based on the requirements of morality. In the context of his moral proof Kant makes some of his strongest claims for the indispensability of physicotheology, as in the Canon of Pure Reason. Yet he also repeatedly suggests that the hypothesis of intelligent design serves the internal interests of science. The thought appears to be that the design hypothesis delivers the schema of maximum unity among appearances, and thus supports the goal of seeking increasingly unified explanations of phenomena.

Accordingly, one interpretative thread on the topic has focused on the issue of the satisfaction of the needs of inquiry. Unless empirical research is to operate aimlessly, so the argument goes, reason's demand for completeness in explanation must somehow be met. While granting that the inference from apparent natural order does not, strictly speaking, constitute cognition (*Erkenntnis*), scholars have suggested that the rationality of physicotheology is nevertheless theoretical in character. Andrew Chignell (2007: 346–7), for instance, argues that the Kantian biologist assents to intelligent design as a 'firmly held doctrinal belief' because it is a hypothetically necessary supposition in her project of studying the means-end structure of organic bodies. That is, while the belief does not constitute *Erkenntnis* partly because, as Kant insists, we never observe intentional causation in merely material nature (e.g. *CPJ*, 5: 399), it is rational to hold it to be true since, as Kant also insists, functional organization cannot arise without intention. Given the difficulty of conceptualizing organisms other than in terms of intended functions, the hypothesis of a designer recommends itself even though belief in it falls short of cognition.[9] In a similar vein, Lawrence Pasternack (2011a: 415) suggests that Kant's idea of a wise author of nature serves as a schema for the application of regulative principles to experience. That is, the rationality of physicotheology rests on the role played by the idea of God as a mediating representation for applying the principle of systematicity to appearances. This is best exemplified in the biological realm, but its scope extends in principle over all of nature. The idea of God acquires its epistemic value in virtue of supporting a view of nature as a maximally unified system of empirical laws, thus in virtue of an internal aim of science. Common to such interpretations is the attempt to defend Kant's positive regard for physicotheology's scientific value by distinguishing a species of non-practical rational inference that does not produce cognition. As Reed Winegar (2015: 891) puts it, 'Kant provocatively suggests that theoretical inferences to the supersensible can qualify as rational yet fail to yield knowledge'.

This line of defence of physicotheology on Kant's behalf is unsatisfying. To be sure, the alliance between intelligent design and empirical science was cultivated by many eighteenth-century naturalists. Some historians have even spoken of a 'holy alliance'

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between Newtonian physics and natural religion originating in Cambridge in the late seventeenth and early eighteenth centuries that led to the design argument becoming a pillar of cataphatic theology (e.g. Gascoigne 1988). Plenty of German authors too based arguments for specific divine attributes on observations of nature.[10] But there is little reason in general to suppose that a practising scientist could not get by without assuming creationism; indeed, there was successful science in the eighteenth century happening outside the holy alliance.

In the Kantian context, a defence of physicotheology for the sake of empirical inquiry is open to several objections. First, the theoretical demand physicotheology is supposed to meet is too thin to support Kant's systematic goals. With respect to natural science, this demand is that empirical cognitions should represent nature as a maximally well-ordered system. But Kant does not take the design hypothesis to provide any specific guidance about what to look for in nature and, consequently, about how such unity is to be produced. It does not, for instance, direct the anatomist to look for specific morphological kinds, or the physicist to look for optimality explanations rather than mechanical ones.[11] While the design standpoint may be fruitful, perhaps inescapable in the biological sciences, Kant repeatedly warns against sliding from the methodological use of teleological concepts to their theistic uses. In his 1788 essay *On the Use of Teleological Principles in Philosophy*, he writes: 'I do not find it advisable to use a *theological* language in matters that concern the mere cognitions of nature and their reach (where it is quite appropriate to express oneself in *teleological* terms – in order to indicate quite diligently to each mode of cognition its boundaries' (UTP, 8: 178; also, *CPJ*, 5: 382). The fruitfulness of teleological reasoning in science – of supposing functional design in anatomy, for instance – should not incite any speculation concerning its supersensible ground. Kant insists that the core principle of empirical inquiry is that 'of the mere mechanism of nature', which enjoys unrestricted scope in its domain, and without which 'there can be no proper cognition of nature' (*CPJ*, 5: 387, 417). A design standpoint is methodologically unavoidable in some domains and worth exploring in others. But it does not yield any specific insight into the overall structure of nature. This is as it should be, for, were theism to supply specific hypotheses for empirical research, evidence in favour of a scientific theory operating with those hypotheses would also constitute evidence in favour of theism. That is, a scientist who took theism to be among her hypotheses would be rationally required to treat evidence in favour of her theory as also confirming theism, a result which Kant should want to avoid.[12]

Second, physicotheology is not in a privileged position to supply the mere presumption of intelligibility. This becomes evident in §§72–3 of the third *Critique*, where Kant considers theism alongside three other hypotheses, or 'systems of purposiveness': Spinozism, Epicureanism and hylozoism. Kant understands these systems as follows. Epicureanism attributes appearances of contingent order and well-adapted forms to blind chance, which, once in existence, are sustained by mechanical laws. Spinozism, meanwhile, denies that order and well-adaptedness express any contingency, and maintains instead that, despite appearances, the entire course of nature is due to natural necessity – there is, consequently, nothing to be explained by appeal to intention or purpose. Kant labels these two positions 'idealisms of purposiveness', inasmuch as they deny the reality of purposive causality in nature. He labels hylozoism and theism, by contrast, as 'realisms of purposiveness', since these hypotheses

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admit an intentional ground of natural order. These theories too, however, fail. Hylozoism posits psychological powers in mere matter, and thus errs, for Kant, by inventing the idea of living matter to explain apparent purposiveness. Theism, meanwhile, retains a correct conception of matter as inert and lifeless, but errs by positing an immaterial mind outside nature as the cause of its purposive order (*CPJ*, 5: 393–5).

While all four hypotheses ultimately fall short, Kant expresses a qualified preference for theism. At first glance, his preference appears to rest on theoretical considerations having to do with the now familiar methodological utility of the teleological standpoint. Yet this cannot be the case. Conceptually, each of the four hypotheses is in principle equally capable of reassuring scientists that nature is well-ordered. What is more, a closer examination of §§72–3 indicates that Kant's preference for physico-theology should be seen in light of the goal of transitioning from nature to freedom. I submit that the deeper problems resulting from the apparent absurdity of Epicureanism, the fatalistic implications of Spinozism or the contradiction in the hylozoist concept of matter have to do with their unsuitedness for the task of unifying theoretical and practical reason, not for the coherence of inquiry.

In the opening paragraph of §73, Kant identifies the common aim of the four systems as being 'to explain our teleological judgments about nature' (*CPJ*, 5: 392). The remainder of §73 shows in turn how each of the four systems fails with respect to that specific aim, for one of two reasons: whereas the idealist systems deny the reality of purposiveness, and thus amount to error theories, the realist ones assume a burden that is impossible to prove by theoretical resources. Kant's reason for nevertheless preferring one of these inadequate options therefore cannot be explanatory, but must draw its force from other considerations.

To see this more clearly, consider first that neither Spinozism nor Epicureanism simply explains away order in nature. Spinozism, as Kant presents it, certainly disavows any role for divine intentions in nature, grounding its order instead on the mere necessity of *natura naturans* (*CPJ*, 5: 393). But a Spinozist scientist should not, for that reason, be pessimistic about her prospects of discovering lawful order. Her rejection of the reality of irreducibly contingent unities in nature does not entail that nature is chaotic, in whole or in any of its parts, but only that such unities are not due to intentional agency. Similarly, the Epicurean does not deny order but only that natural order originates in choice. Natural forms may well have arisen accidentally from chance collisions of atoms, but their further evolution in time can be rationally investigated on the assumption that patterns of natural development express stable regularities. Kant certainly dismisses Epicureanism as 'obviously absurd' on account of its brute appeal to blind chance. But there is no conceptual reason why the Epicurean hypothesis cannot supply the thin assumption of order required for the coherence of scientific inquiry, and Kant's dismissal does not, in fact, focus on the issue of the coherence of empirical theorizing. The hylozoist likewise does not deny the general orderliness of nature but rather tries to account for it through a radically different conception of matter as endowed with an animating principle, one that perhaps entails a world soul as the ground of order. On the Spinozist, Epicurean or hylozoist hypotheses, while the ultimate source of purposiveness in nature is just as indeterminate, and hence as uncognizable, as the divine creator posited by the theist, the subjective demand for completeness of explanation is still met. As Paul Guyer (1997: 42–4) has argued, a scientific interest in mere intelligibility does not require

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any specific hypothesis about the source of order in nature but only the absence of evidence of disorder. And each of these four hypotheses can support the scientist's assumption that nature is not intrinsically disorderly.

More importantly, in his qualified preference for theism, Kant does not claim that it is better positioned than the alternatives to satisfy the demand for intelligibility, still less that it offers more secure grounds for attributing objective purposiveness to appearances. He writes:

> Theism, finally, is just as incapable of dogmatically establishing the possibility of natural ends as a key to teleology, although among all the grounds for explaining this it has the advantage that by means of the understanding that it ascribes to the original being it can best rid the purposiveness of nature of idealism and introduce an intentional causality for its generation. (*CPJ*, 5: 395)

The preference for theism is prefaced with the reminder that it is 'just as incapable' of establishing natural teleology as a theoretical doctrine. What Kant then highlights as the reason for preferring theism is that it alone introduces an intentional cause of purposive effects that is distinct from nature. The virtue of theism here is not that it respects the dogma of classical mechanics that matter is inert, contra the hylozoists, or that it supplies a more intelligible account of the origin of functionally adapted forms, *contra* the Epicureans. Rather, it is that of the four options it alone posits an intentional causality separate from the world. As it turns out, a purposive ground of nature of precisely this sort satisfies the practical demand for the compatibility of natural and moral law. For Kant, the comparative advantage of the theistic account of purposiveness has to do with morality's need to postulate an extramundane principle of nature rather than with the methodological interests of science.

Admittedly, Kant often does ascribe a theoretical function to physicotheology. But the philosophical reasons for it are weak, and Kant himself offers plenty of indication that the design hypothesis should not play any substantive role in empirical research. I propose that a more satisfying explanation, textually and philosophically, of Kant's positive appraisal of physicotheology consists in its strictly systematic function in bridging the gulf between theoretical and practical reason. This function emerges alongside his unambiguously favoured argument for belief in God, or ethicotheology, and of the primacy he accords to practical over theoretical reason.

3. From physicotheology to ethicotheology

In both Introductions to the third *Critique*, Kant sets out the task of transitioning from concepts of nature to concepts of freedom by means of reflective judgement (FI, 20: 246; *CPJ*, 5: 196).[13] Guyer (2005: 314) summarizes the strategy as follows. Kant argues that the possibility of the highest good as the ultimate object of morality requires that we conceive of the laws of nature as compatible with the realization of the form of happiness in this world. This requirement can only be fulfilled by postulating an intelligent author of the laws of nature who also grasps the moral law. To that end, the argument of the Critique of Teleological Judgment moves, roughly, from the subjective inescapability of conceptualizing one kind of object (organisms) to the recommendation (though not indispensability) of regarding nature as a whole as

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designed, to asking about the moral purpose for which an intelligent designer would create the world. In other words, Kant's argument ascends from a psychological fact about the limitations of human judgement about a certain kind of natural being (organisms), which warrants appeal to the concept of a purpose, to the general subjective validity of judging through the same concept the whole series of appearances insofar as it constitutes a lawful unity.

At this stage, however, physicotheology meets its limit, for it cannot deliver a determinate concept of the final end for the sake of which nature would be designed. From the mere fact that we are subjectively compelled to judge nature teleologically, we cannot infer why any material being exists, or why the world as such exists. For the intention behind the existence of particular material beings or of the world as a whole is only possible in relation to an end that is absolutely unconditioned. But an unconditioned end can only have its ground in the noumenal realm, and the only candidate we know that could fill this role is what Kant calls the 'supersensible in us', or the freedom to pursue self-legislated morality (*CPJ*, 5: 429, 474). In order to secure the possibility, then, that moral action in this world would not be in vain, or that the realization of happiness in proportion to virtue is a rational goal to set for ourselves, practical reason needs to postulate an infinitely wise being as the author of both the moral law and the laws of nature, and hence as the guarantor of their compatibility. This task exceeds physicotheology, which reaches only as far as the merely conditioned ends in nature. For this reason, at the conclusion of his criticism of physicotheology in §85 of the third *Critique* Kant calls it a 'misunderstood physical teleology', a project that might inspire the search for a theology, but that can at best only serve as preparation for one (5: 442). Accordingly, physicotheology gives the stage to Kant's moral argument for belief in God, or ethicotheology. He now argues from the conditions of possibility for the realization of the highest good in nature through moral action to the conclusion that I ought to believe that God exists. In sum, the transition from teleological reflection on nature to the moral argument involves the idea of an extramundane, living being that would underwrite our rational hope that nature is not inherently hostile to moral ends.

At the conclusion of the third *Critique,* belief in God is required to satisfy a strictly moral requirement, and involves only practical assent. It does not require what Kant in the first *Critique* calls 'doctrinal belief' (*doctrinaler Glaube*), or a theoretical belief that falls short of cognition and yet is firmly held on account of considerations having to do with knowledge of nature.[14] Unlike the aims of physicotheology and its three competitors that Kant examines in §§72–73 of the third *Critique,* ethicotheology aims to secure the possibility of the moral perfection of the world, not of the explanatory completeness of empirical science. This accords with Kant's conception of theology in general, a clear discussion of which is found in the Introduction to the *Lectures*.

In the *Lectures*, Kant maintains that theology, or the systematic cognition of God, serves a purely moral need. Not theoretical inquiry but only 'our morality has need of the idea of God to give it emphasis. Thus, it should not make us more learned, but better, wiser, and more upright' (Th-Pölitz, 28: 996).[15] The principal value of theology is to strengthen one's moral dispositions. As a result, whatever interest theoretical reason finds in theological matters should ultimately derive from the practical. To that end, Kant sets the task of the philosophical doctrine of religion as that of determining the bounds of human agency by measuring it against a 'highest', or an ideal agent that could dispense happiness in proportion to virtue. He orients philosophical

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theology in general around the question: 'what is the minimum of theology required for religion? What is the smallest useful cognition of God that can accordingly move us to have faith in God and thus direct our course of life?' His answer to the question is: 'that my concept of God is *possible* and that it does not contradict the laws of the understanding' (Th-Pölitz, 28: 998–9). For Kant, the mere possibility of God is sufficient to produce religion because it is adequate to meet the demands of the practical standpoint, even if it fails to satisfy speculation.

We can bring these reflections to bear on Kant's envisioned transition from nature to freedom in the third *Critique*. His conception of the aims of theological reasoning fits with his view of the task of reflective judgement with respect to epistemology and morals, that the philosophical function of the idea of God is not to synthetically unify the two realms but only to 'subjectively join' them, to borrow Klaus Düsing's (1990: 79) apposite phrase. By framing to ourselves the idea of a highest intelligence as the source of lawfulness in general, we come to be in a position to represent the world conceived as subject to physical laws as also suited to the requirements of acting in it under self-given moral law. The postulate of God thus helps us to move, albeit only in the space of subjective reflection on our dual vocation as simultaneously inquiring and acting subjects, from the epistemological problem of the unity of empirical laws to the practical problem of acting with the aim of realizing the form of happiness in this world.

What the postulate does not help with are the internal aims of inquiry. Consequently, the merely theoretical conception of God as designer, along with the teleological reflection on nature it encourages, is of little use for moral theology, except insofar as it might supply psychological motivation to search for it. Toward the very end of the third *Critique*, Kant dramatically underscores the difference in the force of physicotheology and ethicotheology:

> The moral proof (which of course proves the existence of God only in a practical respect although one that is also indispensable for reason) would thus always remain in force even if we found in the world no material for physical teleology at all or only ambiguous material for it. We can conceive of rational beings who see themselves surrounded by a nature that gives no clear trace of organization but reveals only effects of a mere mechanism of raw matter, and who on that account, and given the alterability of some merely contingently purposive forms and relations, seem to have no ground to infer an intelligent author, in which case there would also be no suggestion of a physical teleology; nevertheless, reason, which in this case gets no guidance from concepts of nature, would still find in the concept of freedom and the moral ideas that are grounded upon that a practically sufficient ground for postulating the concept of an original being in accordance with these. (*CPJ*, 5: 478)

For Kant, even if nature's appearances were utterly chaotic, we would still have sufficient practical reasons to believe in God. Not just physicotheology but even the merely methodological use of teleology for investigating nature could entirely collapse (for if nature were in fact chaotic, any heuristic for its study would be worthless), and the force of the moral proof would remain untouched. Despite Kant's sympathy for the design argument, and his view that adopting a design perspective for at least some natural objects is subjectively unavoidable, he ultimately deems

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physicotheology dispensable.[16] What then does it contribute, such that he could also feasibly maintain that it is not only possible but necessary?

One role for the philosophical value of the design hypothesis is suggested in Kant's criticism of physicotheology in §85 of the third *Critique*, which introduces the subsequent section on ethicotheology. There, as in the first *Critique* and elsewhere, Kant repeats the claim of its heuristic advantage. Crucially, however, he links it now explicitly to the task of clarifying the concept of a moral cause of the world. He writes that, even though a merely subjectively valid teleology cannot advance one step the project of causal explanation, it does 'open up a prospect on nature that may perhaps allow us to determine more precisely the otherwise so fruitless concept of an original being' (5: 437). Kant underscores the determination of the concept of God as a cause of the world through understanding and will as the upshot of adopting the teleological maxim suggested by the experience of purposive natural forms, not its methodological value for science. While physicotheology cannot reveal anything about the final end of nature, by leading us to a more distinct representation of the possibility of an intelligent being as its cause, it could serve to bolster confidence in assent to the practical postulate of God as creator.

This aspiration of physicotheology to frame a coherent concept of God for the sake of morality is also stressed in the *Lectures*. There, after concluding his discussion of the two species of transcendental theology, those leading to the ontological and cosmological arguments, and before entering into the discussion of moral theology, Kant indicates the proper place of physicotheology: 'before we proceed to our proper treatment of the divine will, we must first consider an introduction to it borrowed from *physicotheology*' (Th-Pölitz, 28: 1062). Physicotheology, or natural theology, sits between transcendental and moral, and is described as the kind of theology in which 'we are able to represent God in comparison with ourselves' (28: 999). Kant casts the distinction between the three types of theology in terms of how each represents God in relation to the world. In transcendental theology God is conceived as a mere cause of the world; in the design argument, as its author; and in the moral argument, finally, as ruler. Physicotheology represents God as a living being who freely creates the world, but it cannot account for the end for the sake of which he creates it. Ethicotheology, by appealing to the unconditioned freedom we discover in ourselves, is able to make good on this defect by representing God's creative act in relation to the moral and not just physical law (28: 1001; cf. *CPJ*, 5: 444).

To reiterate, the moral proof all on its own commands belief in God. Yet it does not distinctly convey the possibility of a highest being who simultaneously comprehends the laws of both nature and freedom. Physicotheology steps in to shore up the belief that nature is conformable to intention. By analogizing from the structure of our own experience of rational agency, physicotheology fulfils its propaedeutic function of lending emphasis to faith by offering a more concrete representation of how a perfectly wise, self-sufficient being would act, and thus increases subjective confidence in the belief that the world exists for the sake of the good.[17]

4. Physicotheology and the divine will

Historically, two features have been distinctive of physicotheological arguments. First, they have drawn on sensible materials, taking their premises from particular

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experiences instead of resting exclusively on the analysis of the concept of God or on the bare experience that something exists. Second, physicotheology uses analogical rather than deductive reasoning. In these respects, Kantian physicotheology follows tradition. What sets Kant's approach to the design argument apart from his predecessors' is that his emphasis is not so much, for example, on inferring particular divine motives from ocular structure or patterns of rainfall but on recognizing merely the general conformability of nature to rational agency. This feature of Kant's physicotheology is discernible in the overall movement of the second half of the third *Critique*, which proceeds from reflection on organic parts and individuals, to nature as a whole, to the end for which nature exists and ultimately to the vindication of humanity's moral vocation as the final end of existence. It is also abundantly clear in the *Lectures*. Kant insists there on the inscrutability of the particular motives of God's will, of why God gave things such forms rather than others: 'It would be presumption, and a violation of God's holy right', he says, 'to want to determine precisely that this or that is and had to be God's end in the production of a certain thing' (Th-Pölitz, 28: 1069; cf. *CPJ*, 5: 437–8). The purpose of physicotheology is instead to render a coherent representation of the divine mind such that the possibility of nature in general as a product of wisdom is made perspicuous.

In the *Lectures* the introductory function of physicotheology has to do with representing God as a living being. This requires attributing to the divine mind not only an intellect but also a faculty of desire and a faculty of being well-pleased and displeased (*Wohlgefallen und Missfallen*). More narrowly still, the problem is that of forming a coherent conception of the divine will as the power to actualize the objects represented in the divine understanding. The 'big question' motivating physicotheology is: 'How can we think of a most perfect being as having desires?' (Th-Pölitz, 28: 1059–60). *Prima facie*, a self-sufficient being such as God is stipulated to be could neither have desires related to his own nature nor desire anything external to himself, as if God stood in need of other beings. The problem is important, for the possibility of the 'conjunction of the divine understanding with volition' is needed to represent God as a creator who has freely chosen to produce the *summum bonum finitum*, the greatest finite good, namely, the most perfect world, and who thus does not stand in relation to things in that world as a *natura bruta*, a 'blindly working eternal root of all things' (28:1060–1). That is, in order to satisfy morality's need for God, we have to be able to conceive the world as the possible object of an infinite mind. This requires addressing how an all-sufficient being could be the cause of something external to itself through its faculty of desire and, since pleasure or well-pleasedness precedes desire, what God's pleasure could consist in.

The account of physicotheology in the *Lectures* carries out these tasks in two stages. In the first, Kant rebuts objections to the idea of a living God as required by the practical postulate. In the second, he fills in the content of the practical postulate by analogy with the model of human cognition as constituted by the faculties of intellect, desire and feeling. This strategy serves a dialectical function for the sake of the only 'real theology' – moral theology – by representing the highest being as an intentional cause of the things to which it relates as subjects (Th-Pölitz, 28: 1002).

In the first stage of the discussion, Kant defends the theistic hypothesis as preferable to a non-theistic one. He opens by way of a criticism of Hume's objection to the design argument in *Dialogues concerning Natural Religion*.[18] According to Kant, Hume's

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Philo is right to point out that, even if we assume a divine cause of the world through intention, we are still no closer to understanding the unity of such a cause as demanded by Christian theism. That is, Philo's criticism accords with Kant's own in the first *Critique*, that the design argument neither renders the idea of a single author of the world nor explains the unity of its attributes needed for the compatibility of natural and moral law.[19] Nevertheless, Kant objects that, in pressing his point against Cleanthes, Philo incorrectly presents the choice between the following hypotheses as a matter of indifference: the theistic one, that 'a supremely perfect being is the author of the world through understanding', and an accidental origins one, that 'a blindly working eternal nature is the cause of all the purposiveness and order in the world' (Th-Pölitz, 28: 1063). As Philo puts it in Part VII of the *Dialogues*, there is no more difficulty in supposing that the order and organization of animal bodies, and even of the world whole, may have arisen spontaneously than in supposing that it has resulted from intelligence (Hume 1998: 46–8).

Kant's initial response to Philo appears to be a bit of foot-stamping, as he declares the equivalence to be mere sophistry. He asserts that purposiveness in the effects presupposes understanding in the cause and expresses incredulity that the structure of a mere moth could arise spontaneously, or that the totality of the world might have been generated by a fertile material cause. But beneath the polemic lies an argument which targets an unacceptable consequence of Philo's scepticism and reveals the moral relevance of the design standpoint:

> The latter supposition [i.e. accidental generation] cannot even be thought without contradiction; for assuming that we think of nature as such a blindly working original being, it would never have had the capacity to relate itself to subjects, to things outside it. How, then, could it have the causality or the capacity to actualize things outside it, and indeed things which are to agree with a plan? (Th-Pölitz, 28: 1064)

Kant's emphasis here is on the incapacity of a merely ontological cause to relate to its effects as to subjects, that is, to relate to the things it produces with moral interest. The objection here does not concern the theoretical conditions for representing material generation, or the conformity of appearances to physical laws. The unacceptable conclusion is that, even if we could conceive of a non-intentional cause of the world as the ground of physical laws, we would not be in a position to conceive of it as a source of the moral law. The plan for which non-theistic alternatives – that is, all those which deny a unified, extramundane will and understanding – turn up inadequate consists in a moral scheme in which the realm of ends should be realizable in nature. For Kant, where Philo goes wrong is in thinking that the question of the reason for the existence of the world should be settled by theoretical considerations alone. The demand for an extramundane ground of purposiveness arises from the moral need to believe that nature is not intrinsically antagonistic to our self-legislated pursuit of the highest good. Since moral conduct requires belief in the possibility of the realization of the form of happiness in this world, the physicotheological thesis of an intelligent plan for nature and history is rationally preferable to the Epicurean alternative (or, for that matter, to the Spinozist or the hylozoist). In its polemical function, the design argument serves to buttress practical belief in God. Its internal value for science is not what is relevant.

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After this defence of the theistic hypothesis, Kant turns to explicating the nature of a perfect will in which practical reason enjoins belief. He defines the divine will as 'the divine understanding determining God's activity to the production of the objects he represents', or as 'the causality of God's understanding' (Th-Pölitz, 28: 1065, cf. 1061). Kant frames his account of the divine will by considering two objections. The first is that willing is usually understood to presuppose an interest in the existence of something else. But God is supposed to be perfectly self-sufficient, in need of nothing to increase his contentment and blessedness, and thus would neither take pleasure in nor be moved by an interest in anything external to him. So, God would not create anything. In response, Kant draws an analogy between the relation of the good in the world to God's will and the relation of a benevolent deed to the will of the beneficent person. Just as a beneficent person is one who takes pleasure in doing a good deed without any motive of self-interest or expectation of reward, God's will can be represented analogously as relating to everything good in the world as its benefice. By calling this an analogy, Kant means to say that the relation between the two cases is one of perfect similarity, which allows us to represent more distinctly the relation of God's will to the greatest possible finite good. In other words, while there may be a vast difference between the potencies of an infinite and a finite will, the relation of each to their objects is identical.[20] Although a divine agent, unlike human agents, is not limited to realizing only some of what it deems good, with this analogy we can nevertheless have a clearer representation of the possibility of divine creation.

Kant acknowledges a crucial difference between the two cases, which lies in the manner in which a finite and an infinite will relate to the feeling of pleasure, the third faculty in Kant's psychological model. This anticipates what Kant will put in print a few years later in the second *Critique.* In 1788 he notes the involvement in human willing of incentives (*Triebfedern*). Kant defines incentives as 'subjective determining grounds of the will of a being whose reason is not already in virtue of its nature necessarily in accordance with the moral law' (*CPrR*, 5: 72). In the case of human willing, incentives typically have to be added to the judging of a course of action as good in order to determine the will (5: 74). When incentives determine an agent's will, they also determine her being well-pleased in choosing. If this subjective relation of incentives to the will were removed, Kant says, the choice of the apparent good would also be removed, and consequently also the feeling of well-pleasedness (*Wohlgefallen*). The perfection of the divine will, by contrast, precludes any need for incentives in order to determine it to choose the good. In the case of divine action, then, it would seem that willing the good could not have any relation to God's pleasure.

In the *Lectures*, Kant argues that the subjective need for incentives results from the limitations of human power, not from an inadequate grasp of the moral law (Th-Pölitz, 28: 1065–6). That is, for agents like ourselves, in addition to the recognition of the good as good, it is often necessary to choose some goods at the expense of others, and this is where incentives come into play. In the divine case, however, there is no need for such incentives because God not only cognizes all possible goods, he also cognizes himself as having the power to actualize the greatest possible good. In virtue of his omnipotence, God's creative act does not require any subjective grounds in addition to the objective one, the representation of the maximum finite goodness possible. Kant writes: 'If, therefore, we talk about God's motives, nothing but the goodness of the object can be understood by it, but no subjective relations, as if God were

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out for praise or glory' (28: 1066). Yet, he argues, the absence of external motives does not entail the absence of choice or of the associated pleasure, for the objective sufficiency of the good in determining God's will indicates God's complete well-pleasedness with his own existence, or the blessedness suited to an all-sufficient being (28: 1060, 1066). Divine agency can thus coherently be conceived simply as God's cognition of the good determining his will.

But this account of the reasons for divine action provokes a further objection having to do with the freedom of God's will. The objection arises naturally from Kant's strongly intellectualist view of the divine will. Given the perfection of God's intellect, Kant maintains that it is incoherent or at best trivial to conceive of God's activity as a decision, for it must be wholly determined by his perfect knowledge of the good. God does not have to forego certain actions for lack of power, as is the case in human agency. But such a conception of the divine will threatens to lead to fatalism, that is, to a view of God's activity as the operation of mere logical necessity, and thus contrary to the idea demanded by morality of God as a free ruler of the world.

Kant responds by clarifying the notion of freedom of the will, or 'the capacity to determine oneself to actions independently of subjective causes', as it applies to the human will and to the divine ideal. He notes that the concept of human freedom is beset with difficulties because it is clear from experience that human beings are subject to the laws of physical and psychological mechanisms. Yet we are also conscious of ourselves as intellectual beings, and as having the capacity to will *a priori*. Despite the theoretical undecidability of the question of whether the human will is free, we postulate freedom in ourselves 'if the whole of morality is not to be abolished' (Th-Pölitz, 28: 1068). That is, we believe ourselves to be free because the possibility of moral conduct presupposes it. In the case of God's freedom, however, we represent to ourselves a purified ideal of a will that is entirely independent of physical and psychological conditions. In this consists God's complete self-sufficiency (*Selbstgenügsamkeit*), that he is not subject to inclinations or in need of incentives to determine his will. The activity of such an agent could thus only be represented as free. But we should not thereby be misled into suspecting that the idea of divine freedom is somehow flawed, either because of conceptual incoherence or an absence of concrete instances. Kant's crucial point is that the reason we attribute transcendental freedom to an all-sufficient moral agent is exactly the same reason why we attribute it to ourselves: that it is a practically necessary condition of moral conduct as such. Again, the analogy is sound, for the relation of both human and divine wills to their practically necessary conditions is identical, however their natures or the circumstances of their exercise might differ. That God would always choose the same action – the objectively best one – does not indicate a lack of freedom but rather his perfect freedom to will what is best without needing external incentives. Conversely, the fact that human beings sometimes act in ways contrary to morality is a limitation due to human nature, but it does not undermine the grounds for postulating freedom in ourselves. The charge of fatalism, for Kant, rests on a failure to distinguish between natural necessity and practical necessity.

In this way, Kant undertakes a defensive enterprise on behalf of the moral postulate of God as a free ruler of the world. But how does this treatment of the divine will constitute a physicotheology? If measured by the standard of most eighteenth-century natural religion, one would have to conclude that it does not, at least not

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in its content. Kant's positive appraisal of physicotheology has little to do with inferring God's motives from observations of the structure of insect bodies or meteorological patterns. In concluding the discussion of physicotheology in the *Lectures*, Kant firmly declares God's will to be inscrutable with respect to its particular motives, or to 'what there was in the world that made God arrange it as he did' (Th-Pölitz, 28: 1069). At the same time, however, the appearance of teleological order incites us to seek an answer to the more general question: 'From the purposive order of nature can one infer an intelligent author of this order?' (28: 1063). The crucial part of this inquiry, in Kant's hands, consists in determining the concept of a highest being as having a cognitive life relevantly similar to our own, so that we could coherently represent nature to ourselves as suited to purposive action. At the formal level, this project employs the style of reasoning distinctive of the physicotheological tradition, namely reasoning by analogy. Unlike transcendental theological arguments, it also appeals to particular facts, albeit ones drawn from the practical rather than the theoretical domain. Briefly, Kant's discussion analogizes from our experience of finite rational agency to construct a model of an ideal agent. The account of physicotheology that thus emerges indicates that his interest lies not so much in furthering knowledge of nature itself but rather in understanding intentional agency under natural conditions for the sake of bringing into view the possibility of an ideal moral world. Perhaps a better formulation of Kant's question for physicotheology would be: 'what kind of world would a perfectly moral being create?'[21]

An answer to this question, however, is beyond the scope of analogical reasoning about experience, whether objective or subjective. Considered merely as a natural being in the series of appearances, the human being is always conditioned by physical and psychological laws. But whatever should exist as a final end, and thus serve as a purposive and not just ontological ground of existence, must be conceived as an unconditioned ground through intelligence and will. Teleological reflection on phenomena cannot disclose the final end for the sake of which anything whatsoever exists. Accordingly, having served its preparatory function of producing conviction in the possibility of nature in general as a realm of ends, physicotheology cedes the stage to the ethicotheological argument for why nature must be conceived in relation to God as the legislative sovereign of a specifically moral realm of ends, and why nature acquires its value only in relation to a community of rational beings under moral laws (*CPJ*, 5: 442–4).

5. Conclusion

I have argued that Kant's affection for the design argument is best explained by the need to reconcile the domains of nature and freedom rather than by the internal interests of natural science. Although he frequently suggests that a view of nature as intelligently designed has methodological advantages for empirical research, his arguments for the thesis are unsatisfactory and at odds with some of his own epistemological commitments. Kant's positive appraisal of the design standpoint should instead be interpreted as being in service of a problem that is strictly internal to the critical system, arising from his sharp separation of theoretical and practical rationality. This is the problem of transitioning from nature to freedom, which frames the task of the third *Critique*, and which involves appeal to the idea of God as the unified

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ground of both moral and physical law. In that context, Kant concludes that physicotheology is incapable of supplying theoretical grounds for belief in the unity of two domains. Its real value consists in increasing subjective confidence in theistic belief held independently on moral grounds. In this office, physicotheology serves as preparation for his argument for belief in God's existence as a practically necessary postulate. Physicotheology thus turns out to have a largely polemical and clarificatory function, which it carries out by rebutting dogmatic denials of purposiveness in nature, and by analogizing from the structure of finite intentional agency to ideal intentional agency in relation to nature. When placed in this scheme, the design standpoint occupies a far more modest position than some of Kant's stronger statements in the context of scientific inquiry suggest, and accords with his convincing criticisms, in the first *Critique* and elsewhere, of early modern natural religion.

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Notes

1 All references are to the Academy edition of Kant's texts (Kant 1900–). Where available, I follow the Cambridge translations, using the following abbreviations: OPA: Only Possible Argument in Support of a Demonstration of the Existence of God (in Kant 1992); A/B: *Critique of Pure Reason* (Kant 1998); *CPJ*: *Critique of the Power of Judgement* (in Kant 2000); Th-Pölitz and Th-Baumbach: Pölitz and Baumbach notes from Kant's Lectures on the Philosophical Doctrine of Religion (in Kant 1996a); FI: First Introduction to *Critique of the Power of Judgement* (in Kant 2000); UTP: On the Use of Teleological Principles in Philosophy (in Kant 2007); *R*: *Religion within the Boundaries of Mere Reason* (in Kant 1996a); *CPrR*: *Critique of Practical Reason* (in Kant 1996b); *P*: *Prolegomena to any Future Metaphysics* (in Kant 2002).

2 For a helpful account of Kant's theory of the postulates, see Willaschek (2010), who defines a practical postulate nicely as a proposition 'that is theoretically undecidable and practically binding'; see also Kahn (2020).

3 This is the technical sense of the polemical use of reason that Kant lays out in the first *Critique* (A739–40/B767–8).

4 The earlier arguments are in the Canon of Pure Reason chapter of the first *Critique* (A807–17/B835–45) and in the Dialectic of the second *Critique* (*CPrR*, 5: 124–6).

5 The text of Kant's *Lectures* is drawn from student notes, and so must be used with caution as a source of his considered views. I have situated the account in the *Lectures* against the background of the third *Critique*, and I use the former to the extent that it is consistent with and fleshes out Kant's discussion of physicotheology vis-à-vis ethicotheology in the latter. For the *Lectures*, I draw mainly on the Pölitz notes in volume 28 of the *Akademie Ausgabe*, following Allen Wood's translation in Kant (1996a). For details of the textual history of the *Lectures* and an account of their significance for interpreting Kant's views on philosophical theology and religion, see Palmquist (2015), who notes their consistency with Kant's views on theological topics in the three *Critiques*.

6 My focus here is on the critical period. Kant's interest in the design argument and in the broader question of the compatibility of science and religion spans the length of his career. His most detailed pre-critical treatment of physicotheology is in the 'Only Possible Argument' essay of 1763, where he adopts Pierre Maupertuis' focus on universal mathematical necessities in nature, as opposed to contingent local patterns, as the basis for inference to an intelligent designer. In 1763 Kant is engaged in revising the design argument, which he still regards as a viable means for unifying theology and Newtonian physics. He states his conciliatory intent in clear terms: 'I shall have achieved my purpose, as far as this book is concerned, if, with confidence established in the regularity and order which may issue from the universal laws of nature, the reader opens up a wider field to natural philosophy, and can be induced to recognise the possibility of an explanation such as the one offered here, or one like it, and to acknowledge

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the compatibility of that explanation with knowledge of a wise God' (OPA, 2: 148). See Waschkies (1987) for a comprehensive study of physicotheology in the pre-critical Kant.

7 Kant has in mind Reimarus' popular *Abhandlungen der vornehmsten Wahrheiten der natürlichen Religion* (1755), which had gone through five editions by the time Kant wrote the third *Critique*.

8 In the theoretical context, Kant uses the concept of purposiveness as the ground of belief in intelligent design in a variety of ways. In the first place, he refers to organic parts and individual organisms as natural purposes, i.e. as having internal ends determining their activity. But Kant also speaks of nature in its totality as a system of ends, and thus as a purposively unified system of empirical laws, in both the first and third *Critiques*. These distinctions affect how we should understand Kant's philosophy of science and his philosophy of biology. With respect to the issue of supporting belief in God, however, all of these uses of purposiveness come down to the question of locating the intentional cause of naturally purposive effects, and the recognition that it must exceed the kinds of causality we know from experience: the mechanism of mere matter and our own intentional activity. Within the bounds of causal experience, we can just as little explain the production of a single organism as the purposive construction of the universe as a whole. In what follows, I focus on the general claim that the appearance of purposiveness in nature, whether at the organismal or systematic levels, warrants belief in intelligent design for the sake of inquiry.

9 In support of the design hypothesis, Kant explicitly appeals to the fact that practising scientists in his time do make such an assumption, e.g. in UTP, 8: 181: 'Now the concept of an organic being is this: that it is a material being which is possible only through the relation of everything contained in it to each other as end and means (and indeed every anatomist as well as every physiologist actually starts from this concept).'

10 Besides Reimarus, these include C. M. Seidel, *Bombycotheologie* (1718), F. C. Lesser, *Lithotheologie* (1735) and B. de Rohr, *Chionotheologie* (1740). See Schönfeld (2000: 102–3) for a catalogue. The term 'physicotheology' became popular after William Derham's *Physicotheology: A Demonstration of the Being and Attributes of God from His Works of Creation* (1713). But it has an earlier provenance, going back at least to Walter Charleton's *The Darknes of Atheism Dispelled by the Light of Nature. A Physico-Theologicall Treatise* (1652), and Samuel Parker's *Tentamina physico-theologica de Deo* (1665). Christian Wolff's popular *Vernünfftige Gedancken von den Absichten der natürlichen Dinge* (1723), however, does not belong to this tradition, as Wolff thinks observations of nature only confirm but are not sufficient to prove theological truths; see Hamid (2019).

11 By optimality explanations, I mean accounts of phenomena that appeal to principles of economy. The Leibniz/Maupertuis law of least time, for instance, accounts for the behaviour of light rays through the principle that a ray seeks to minimize the time taken from point A to point B. Generally, such accounts rest on the principle that in physical events some local quantity is always minimized or conserved. They are thinly teleological insofar as they begin with an end state and propose rules that would explain why that state should result. By contrast, mechanical explanations begin with initial conditions and propose rules that predict future states.

12 Wood (1978: 143–4) levels a similar charge against Kant's defence of the design argument.

13 The project of such a transition is not a new development. Already when introducing the ideas of pure reason in the first *Critique*, Kant highlights their possible use in a transition from nature to freedom (A329/B386). See Düsing (1968: 102–15) for an insightful discussion of the origins of the question in Kant.

14 In the Canon of Pure Reason chapter of the first *Critique*, Kant uses the label 'doctrinal belief' for belief in God as creator (A826–7/B854–5). Kant describes doctrinal belief as a theoretical 'analogue' of pragmatic belief, and maintains that doctrinal beliefs are rationally held to be true even though we lack objectively sufficient grounds for them, and indeed even when none are possible (A825/B853). Chignell (2007: 345–54) explains that, in the Canon of Pure Reason, theoretical or doctrinal belief involves 'freely holding an assent on account of its non-epistemic but still in some important sense *theoretical* merits'. The character of the non-epistemic yet theoretical significance of belief in the existence of God, or the existence of extra-terrestrials (another one of Kant's examples), is left murky, however, as Kant himself seems to acknowledge: 'But there is something unstable about merely doctrinal belief; one is often put off from it by difficulties that come up in speculation, although, to be sure, one inexorably returns to it again' (A827–8/B855–6). Stevenson (2003: 90) emphasizes the instability of doctrinal belief in the critical philosophy as a whole, and Pasternack (2011b: 300–1) convincingly shows that the notion does not survive into the third *Critique*. I agree with the latter commentators on this issue.

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15 See Sturm (2020) for a clear account of the distance between the epistemic aims of inquiry and the moral ends of Kant's religion.

16 The difference in force of the design argument and the moral argument is thus far greater than some commentators recognize. Goy (2014: 217–19), for instance, interprets Kant as working with two separate concepts of God, a physicotheological and an ethicotheological God, each of which accesses a different aspect of God and 'proves' it from a human point of view. This approach has *prima facie* appeal, but it understates the vast gap Kant maintains between the determining force of concepts of nature and of freedom with respect to the idea of God and to the rationality of faith.

17 Kleingeld (1998: 335–6) distinguishes thin versus thick unification of theoretical and practical reason. Borrowing her distinction, I suggest that physicotheology aims at the latter.

18 For details of Kant's acquaintance with Hume's *Dialogues*, published posthumously in 1779, see Hatfield (2001: 188n.). For an account of Kant's reaction to it, see Winegar (2015).

19 In Part V of the *Dialogues,* Philo declaims: 'And what shadow of an argument . . . can you produce from your hypothesis to prove the unity of the Deity? A great number of men join in building a house or ship, in rearing a city, in framing a commonwealth; why not may several deities combine in contriving and framing a world? . . . But while it is still a question whether all these attributes are united in one subject or dispersed among several independent beings; by what phenomena in nature can we pretend to decide the controversy?' (Hume 1998: 36–7).

20 Kant holds a relational theory of analogical judgment. That is, analogy has to do with similarity of relations, and not, in its more colloquial sense, with similarity between objects. That is, a good analogical inference rests on a similarity of the relations between two sets of *comparanda*, not on similarity in their natures (*P*, 4: 357–8).

21 In fact, Kant gives a very similar formulation in the Preface to *Religion within the Boundaries of Mere Reason*: 'Assume a human being who honours the moral law, and who allows himself to think (as he can hardly avoid doing) what sort of world he would create, were this in his power, under the guidance of practical reason' (*R*, 6: 5).

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