Intellectualism, Relational Properties and the Divine Mind in Kant's Pre-Critical Philosophy

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Abstract

I demonstrate that the pre-Critical Kant is essentialist and intellectualist about the relational properties of substances. That is to say, God can choose whether or not to create a substance, and whether or not to connect this substance with other substances, so as to create a world: but God cannot choose what the nature of the relational properties is, once the substance is created and connected. The divine will is constrained by the essences of substances. Nonetheless, Kant considers that essences depend upon God, in that they depend upon the divine intellect. I conclude by gesturing towards some possible implications of this interpretation, when considering the role that might be played by God – both historically and conceptually - in relation to the notion of 'laws of nature', and when understanding Kant's transcendental idealism and his Critical conception of freedom.

Introduction

In this article I argue that the pre-Critical Kant has an intellectualist rather than a voluntarist conception of God, and that once this is understood it becomes clear that Kant is essentialist about relational properties. This aligns Kant with the rationalist theological tradition running through Leibniz, Wolff, and Baumgarten. In this tradition we find a conception of the divine intellect rather than the divine will as the source of laws of nature. This is a conceptual texture that has been overlooked in recent discussions of the role of God in the emergence of the notion of a law of nature, with a tendency to focus exclusively upon a voluntaristic God commanding contingent laws. As well as being crucial for grasping Kant's pre-Critical position on the status of dispositional and relational properties, conceptual textures uncovered in Kant's early philosophy have suggestive implications for how we might understand aspects of Kant's transcendental idealism and his Critical conception of freedom.

By 'intellectualism' I mean the view that the divine will is constrained by the structure of reason, within which are contained all possible combinations of properties, which constitute the essences of things; and by an 'essentialist view of relational properties', I mean that although God can choose whether or not to create a particular substance, and whether or not to place it in connection with other substances, God cannot choose all the relational properties of a substance, some of which are fixed by its essence. Although commentators such as Laywine (1993: 37-42), Schönfeld (2000: 149-54), Langton (2004: 107-23), and Watkins (2005: 149-55) correctly identify the importance of God in creating and connecting substances, there is not as vet a systematic treatment of the early Kant's intellectualist conception of God, and of its wider implications. This article seeks to fill this gap.

In the first section of the article, I set out Kant's pre-Critical position, which is generally well-understood in the literature, that without the divine mind there would be no community between substances, because substances would not have (actual) relational properties. As we will see, without such a community between substances. Kant considers that there would be no space, and no change, succession, or causation between substances.

In section 2, I set out two fundamental models for how to construe this dependence of the creation upon the divine mind, both of which have venerable theological genealogies. One model emphasizes the freedom of God to create the relational properties of substances according to his arbitrary will, such that the same substance could have different relational properties if God so wills. This conception forges a link between a voluntaristic conception of God and a commitment to contingent laws of nature. The alternative 'intellectualist' account restricts the freedom of the divine will to the choice of whether or not to create a substance, such that the relational properties of the substance are to some extent fixed by the nature or essence of that substance, where these essences are contained within the divine understanding. In the process of outlining these two models, I will set out more precisely what I mean by 'essentialism' and 'intellectualism', and how these relate to the characterization of properties as intrinsic, extrinsic and/or relational. We will see why Langton is tempted to ascribe to the pre-Critical Kant a voluntarism about God, with a contingent conception of the laws of nature, but why this neglects significant interpretative possibilities, fully explored in section 3.

In section 3, I do the substantive interpretative work of demonstrating that the early Kant is intellectualist about God, and essentialist about relational properties. It should be noted that my task is Kant exegesis rather than philosophical reconstruction; I do not seek to defend Kant's intellectualism and essentialism, but simply to understand his position, and to set out the supporting reasons he explicitly provides in his texts. Other commentators have offered extensive reconstructions and critiques of some of the texts discussed, and I refer to this literature at appropriate points, intervening only on exegetical points. That said, in the fourth section, I briefly gesture towards some possible implications of this interpretation, when considering the role that might be played by God – both historically and conceptually – in relation to the notion of 'laws of nature', and when understanding Kant's transcendental idealism and his Critical conception of freedom.

1. Kant in Context: The Divine Mind and the Metaphysics of Real Relations

From an early stage in his thought, under the influence of Martin Knutzen, Kant adhered to key Newtonian principles,2 albeit putting them in a metaphysical key: in particular, the principles of inertia and real causation. The notion of real causation between substances was under pressure in Kant's context because of perceived problems with the discredited scholastic 'way of influence', which posits something passing 'from one substance into another' (Leibniz 1998b: 192). Leibniz rejects the notion that an accident could 'migrate' between substances, as 'monads have no windows through which anything could come in or go out ... accidents cannot detach themselves and stroll about outside of substances' (1998c: 268). Although Kant attempts to restore a notion of real causation, he is also anxious to 'exclude' this conception of 'physical influence' (Kant 1992: 44, NE 1: 415), sharing Leibniz's conviction that 'the action of one substance upon another is not an emission or a transplantation of an entity' (1998a: 152). Accordingly, much of Kant's early thought can be understood as a preoccupation with two tasks: first of all, defending the principles of inertia and real causation against the opposition of thinkers such as Leibniz, Baumgarten, and Wolff; secondly, protecting these same principles against the *support* of thinkers such as Knutzen and Crusius, who defended real causation, but from Kant's point of view, on erroneous grounds.3

Kant is keen to avoid the implication that substances stand in relation to one another by virtue of their existence alone: this, he thinks, is a mistake made by the scholastic 'way of influence', and repeated by both Knutzen and Crusius (see below). For Kant, it is only by virtue of the divine will that substances stand in relation to one another. In what follows, I will set out some key passages where Kant describes this dependence upon a divine decision. God has a choice whether or not to connect substances, and unless God does so connect substances, there are no real relations. I will look in turn at *Living Forces* (1747), at the principles of succession and coexistence in A New Elucidation (1755), and at the Physical Monadology (1756). When attending, in section 3, to the intellectualist dimension of the divine mind, and the limitations placed on the scope of the divine will, I will also consider evidence from The Universal Natural History (1755) and The Only Possible Argument (1763).

In his earliest work *Living Forces* (1747) Kant insists that it is possible for substances to exist without any external relations with others, which is to say that substances are not in connection with one another by virtue of their mere existence alone:

A substance is either in connection and relation with another substance outside of itself, or it is not. Because any selfstanding being contains the complete source of all its determinations in itself, therefore it is not necessary to its being that it stand in connection with another thing. Therefore substances can exist and nonetheless have no external connection at all with other substances, or they can stand in a real connection with other substances. (*LF* 1: 21–2)

For there to be a 'world' we require substances to be in connection with one another. Given that it is possible for things to exist without being in connection, it is therefore possible for substances to exist, but not to belong to a world. Equally, it is possible that substances are connected with each other, but not with this world, such that there exists another world. Kant criticizes the view, propounded in the 'lecture halls', that 'there could not exist more than a single world' (LF 1: 22). It is 'really possible' that 'God has created many millions of worlds' (LF 1: 22). It remains 'undecided whether they really exist or not', and we commit the mistake of thinking otherwise because we fail to understand that we only have a world when things 'stand in a real connection with other things' (LF 1: 22).

In his 1755 work the New Elucidation Kant sets out two principles 'extremely rich in consequences': the principles of succession and coexistence (Kant 1992: 37; NE 1: 410). The 'principle of succession' asserts that no substance has the power to change itself:

No change can happen to substances except in so far as they are connected with other substances; their reciprocal dependence on each other determines their reciprocal changes of state. (Kant 1992: 37: NE 1: 410)

Without this 'connection of substances', 'succession and time would likewise disappear' (Kant 1992: 37; NE 1: 410). As Laywine points out (1993: 36), we see here something like the Newtonian principle of inertia applied at a more fundamental level: more fundamental, because Kant is not just describing a truth about matter, but about any substances whatsoever.⁴ The Newtonian conception of force 'presupposes place, direction and change', whilst for the early Kant, 'force applies in more spheres than bodies', and includes, for example, 'a change of perception in a soul' (Laywine 1993: 36).

Kant distinguishes his position from the 'system of physical influx' (1992: 44; NE 1: 415), and Leibnizian pre-established harmony, represented in the 'Wolffian philosophy' (1992: 38-9; NE 1: 411-12). Kant argues that if Leibniz were correct that monads are isolated from other monads, then they would remain 'completely immutable' (1992: 37; NE 1: 410). Even if the substance were in connection with another substance, 'if this relation did not change' there would be no motion or succession 'even in the inner states of substances', and so therefore 'time would likewise disappear' (1992: 37; NE 1: 410). Kant is dismissive of the 'sterile' attempts of the 'Wolffian philosophy' to account for change within substances, by positing an 'inner principle of activity' through which 'a simple substance' is 'subject to constant change' (1992: 38; NE 1: 411). For a change to occur, Kant argues, 'a determination' must 'come into being which was not previously present' (1992: 37; NE 1: 411), but as the essence of a substance is necessary and immutable, it is hard to see where this change in determination could come from.

It is at this point that the divine mind plays a crucial role, with Kant arguing that the required external connection arises 'in virtue of the connection' by means of which the substances 'are linked together in the idea entertained by the Infinite Being' (1992: 34; NE 1: 415). Because of this connection in the divine mind there is 'a universal harmony of things', which avoids being a Leibnizian pre-established harmony in that what the divine mind sustains is 'a real reciprocal

action between substances', such that there is an 'interaction between substances by means of truly efficient causes' (1992: 44; NE 1: 415). Kant is confident that the connecting role of the divine mind distances his system of 'truly efficient causes' from Knutzen's 'threadbare system of efficient causes', where 'the principle of substances, considered as existing in isolation' is regarded by Knutzen as sufficient to ground connection, when in fact the 'origin itself of the reciprocal connection of things ... is to be sought outside the principle of substances', in God alone (1992: 44-5; NE 1: 416). At the same time, God does not need constantly to intervene by a 'special influence' along the lines of 'Malebranche's occasional causes ... now one way, now another, according to circumstances'. This is unnecessary in Kant's system because 'the same indivisible act, which brings substances into existence and sustains them in existence, procures their reciprocal and universal dependence' (1992: 44; NE 1: 415).

In the second of the principles set out in the New Elucidation, the 'principle of coexistence', Kant also reflects on the role of the divine mind. This principle is made up of two claims. First of all, 'finite substances, do not, in virtue of their existence alone, stand in relationship with each other'; and secondly, the 'divine understanding' as the 'common principle of their existence' is required to maintain the substances 'in a state of harmony in their reciprocal relations' (1992: 40; NE 1: 413).

The 'principle of coexistence' effectively targets Crusius's claim that the mere existence of a substance is sufficient to connect it with other substances. Crusius tells us that through the 'mere existence' of substances 'the existence, or a certain manner of existing, of another thing is made possible, impossible, or necessary' (Crusius 2009: §79, 156-7). Even though Crusius is careful to add that such an 'existential ground' is in itself 'inefficacious', with the need for a further 'active power' to produce an effect, it is nonetheless the case that the existential ground alone establishes a common world, and also that the 'active power' arises from the 'inner property of its essence ... due to which something else is actual or comes to be', without the need for God to establish connections over and above the act of creating the substances. Reading the 'principle of coexistence' in the context of Crusius helps us to appreciate the ontological force of Kant's claim here: he is not just commenting on a Leibnizian reduction of relational properties to nonrelational intrinsic properties,⁵ but is insisting on a substantive ontological dependence of relational properties upon the divine mind.

When discussing the nature of space in his 1756 work Physical Monadology, Kant is able to apply the distinction drawn both in Living Forces and the New Elucidation between the mere existence of a substance and the forces that arise from the divinely willed connection between substances. Already in 'Living Forces', Kant reflects that 'it is easy to prove that':

there would be no space and no extension, if substances had no force which has an effect external to themselves. For without this force, there is no connection, and without this there is no order, and finally, without this, there is no space. (LF 1: 23)

In the Physical Monadology Kant argues that monads are spatially extended, inasmuch as they have a sphere of activity in relation to other monads: space is the appearance of this connectivity between monads. In this way, Kant hopes to reconcile a metaphysical commitment to simple and indivisible substances with the infinite geometrical divisibility of space: if space is derivative from the relations between substances, it can be divisible, without the fundamental substances from which it is derivative also needing to be divisible.

Alison Laywine (1993: 48–9) helpfully draws attention to the parallel between the New Elucidation and the Physical Monadology. In the New Elucidation. Kant tells us that the mere existence of substances is not sufficient to put them in relation; it is only because these substances are put into community by the mind of God that they are in relation, and that a world, time, and succession are possible. Similarly, in the Physical Monadology Kant reflects on how space, and the volume and extension of bodies are derivative from the connection of substances. which are themselves not infinitely divisible or extended. As Laywine puts it, so long as Kant is entitled to 'distinguish between the core of an element's inner determinations and the sphere of its activity', which according to the principle of coexistence he is, then he is entitled to say 'that an element has volume by reason of the latter and the status of a true, simple substance by reason of the former' (1993: 49).

Kant gives God a two-fold role in the Physical Monadology. First of all, and most importantly, God is the source of the connectivity between substances, from which space is derivative⁶ as the appearance of external relations. Secondly, God's relation to the creation provides Kant with an analogy of how something can give rise to spatial phenomena, without being itself spatial, as God can be 'internally present to all created things by the act of preservation', without us fearing that in dividing things in space - the 'orbit of His presence'- we therefore 'divide God' (1992: 58; PM 1: 481).

2. Voluntarist and Intellectualist Construals of the Role of the Divine Mind

At the outset I acknowledged that commentators such as Laywine, Schönfeld, Langton, and Watkins all correctly identify the importance of God in connecting substances, as set out above. What is less clear in the literature is the precise role of the divine understanding in relation to the divine will in this creative and connecting process. In this section, I outline the distinction between the divine will and understanding as it came to Kant through the German rationalist tradition. At this point, I will clarify my use of key terms, certainly not exhaustively, but sufficiently for our purposes in the following discussion. I will discuss the following in turn: relational and dispositional properties, in the context of the distinction between intrinsic/extrinsic properties; substances, natures, and essences; essentialism, and intellectualism/voluntarism. Langton's voluntarist and anti-essentialist interpretation of the pre-Critical Kant will be set out, and located in a wider voluntarist theological genealogy, with a suggestion towards the end of the section as to the source of Langton's misreading of Kant.

Through the rationalist theological tradition coming through Leibniz, Wolff, and Baumgarten, Kant inherits the traditional theological distinction between the divine 'properties of understanding and will', which belong 'to the necessary being', because 'understanding and will are, both of them, true realities, and they can both co-exist together with the greatest possible reality in one thing', such that 'understanding and will, and all reality of the nature of mind, would have to be possible in others through the necessary being as a ground' (1992: 132; OPA 2: 88). Echoing the scholastic Christianized Platonism that remained in rationalist theology, Kant writes of the divine understanding as containing the 'real ground', 'the possibility of all other things, in respect of what is real in them' (1992: 131; OPA 2: 86), such that 'all other reality [is] given through the necessary being as its ground' (1992: 131; OPA 2: 87).

The idea, also found in Leibniz (1989: 151), Baumgarten (1926: §§863-5, 168), and Wolff (2009: §989, 51), is that instantiated created reality is a metaphysically possible restriction and combination of all the possibilities contained in the divine mind, such that 'all reality is, in one way or another, embraced by the ultimate real ground' (1992: 136; OPA 2: 92). The 'essences of things' (1992: 136; OPA 2: 92) are grounded in the 'data of all possibility ... found in the necessary being' (1992: 129; OPA 2: 85), with the essence of each created substance representing a particular set of possibilities, obtained by the restriction and combination of the total set of possibilities in the divine understanding. For any particular substance, the subset of total possibilities constitutes the 'nature' or the 'essence' of the substance: this 'essence' constitutes the set of properties that the substance must have in order to be that substance.

This conception of God as the ens realissimum survives as a regulative idea in Kant's first Critique (1998: 553-9; CPR A572/B600-A583/B611), where Kant explains the regulative use of the idea that 'the thoroughgoing determination of every thing rests on the limitation of this All of reality' (1998: 556-7; CPR A577/B605), where 'all possible predicates of things' are contained in the 'storehouse' of the divine mind (1998: 555; CPR A575/B603). The 'particular possibility of every thing' (1998: 554; CPR A573/B601) is obtained through a process of limitation, whereby with 'every given pair of opposed predicates', one 'must always apply' and the other be denied, so that the 'determination of a thing is subordinated to the allness or the sum total of all possible predicates' (1998: 555; CPR A575/B603).

In order to relate this rationalist position to wider interpretative and philosophical issues, it is helpful to say something here about the distinction between intrinsic and extrinsic properties. Roughly speaking, a property of a substance is extrinsic if it depends upon the existence of another created substance. It is an intrinsic property if it belongs to the substance independently of the existence of other created substances. We need to add the qualifier 'created' here to make the distinction work against a theistic framework, as even intrinsic properties will be dependent upon the existence of God.

There is a vast literature that attempts to give a more finely grained and precise account of the intrinsic/extrinsic distinction.⁷ It is not necessary for our purposes to enter into an intricate discussion of this, for three reasons. First of all, as I will show below, the distinction drawn in the paragraph above is sufficient for our purpose of setting out Kant's intellectualism and essentialism. Secondly, as it is unlikely that Kant has anything much more precise in mind, any further elaboration will be a reconstruction and an extrapolation. Thirdly, the contemporary debate about the intrinsic/extrinsic distinction arguably does not map all that well onto Kant, in that it tends to test intrinsicality by asking, through an extensional logic, whether ascription of a property extends over all or only some possible worlds in which the substance exists. Kant is more interested in tracking the subset of intrinsic properties of substances that are structurally fundamental and explanatory of substances, rather than all the properties that extend over 'possible worlds/sets' (see section 3).

The intrinsic/extrinsic distinction relates to talk about the 'essence' or 'nature' (these can be used interchangeably for our purposes) of a substance in the following way. Where the 'essence' of a substance represents those properties the substance must have in order to be that substance. we can ask whether the essence of a substance contains only intrinsic properties, or intrinsic and extrinsic properties. Given the rough distinction drawn above, this amounts to asking whether the substance can be the substance it is, if it exists without being in connection with any other substances. In the discussion in section 1, it became clear, particularly in Living Forces and the 'principle of coexistence', that Kant does indeed consider that a substance can exist without being in connection with any other substances. This means that, for Kant, none of the essential properties of a substance - those it must have to be what it is - are extrinsic. All essential properties of a substance, for Kant, are intrinsic properties. When in formulations below I talk of 'essential (and therefore intrinsic) properties', it is to this substantive commitment of Kant's that I refer.

I note here that although all essential properties are intrinsic, it does not follow that all intrinsic properties are essential. There might be intrinsic properties that are not essential to the substance. For example, that Socrates is five feet tall would look like an intrinsic property, but not an essential property, in the way that 'being rational' might be considered to be. The contemporary debate tends to draw the intrinsic/extrinsic distinction in the noted logical and extensional way by asking of any property whether it extends over the set of a substance's properties irrespective of the existence of other substances. For this reason, the literature about the intrinsic/extrinsic distinction is beset with problematic properties that seem to generate troubling results: for example, the property of 'being accompanied by the number 21' (Francescotti 1999: 596), if we suppose numbers to exist and to be necessary beings; and disjunctive properties such as the property of 'being square-andaccompanied' or 'being circular-and-unaccompanied' (Vallentyne 1997: 210-11). As these 'properties' gravitate towards the set of properties that the object has irrespective of the existence or absence of other objects, they tend to count as 'intrinsic' to the object. Meanwhile, our

'intuitions' about intrinsic properties – about what it is we are trying to track here – continue to tell us that these properties should not count as intrinsic. The literature then divides into those who think that the problem is with our intuitions, such that we should be prepared to count 'being accompanied by the number 21' as intrinsic (Vallentyne 1997: 209-19; Langton and Lewis 1998: 333-45), and those who try to repair the membership criteria of the sets, to exclude such properties (Francescotti 1999: 560-609).

One line of attack, in the light of these difficulties, would be to deny the value of an extensional approach to intrinsic properties when dealing with historical thinkers such as Leibniz and Kant (see Cover and O'Leary-Hawthorne 1999: 19–26). This could be joined up in interesting ways with the argument made by Ellis (2001: 26-32) that a causal and explanatory way of discerning intrinsic properties is also more illuminating when considering the practice of contemporary science. Although it might seem plausible that Kant is more interested in those intrinsic properties that are structurally and causally explanatory for substances, it is not necessary for us to adjudicate on this issue; the interpretative dividing line that concerns us arises when we ask whether any of the subset of intrinsic properties that are essential to the substance are dispositional, whether intrinsic properties are construed extensionally or causally. By a 'dispositional' property I mean a property such that the substance would have determinate relational properties in the event that the substance were placed in connection with other substances. The point needs to be put in this subjunctive way - relational properties the substance would have were it placed in connection - because we already know that none of the essential (and therefore intrinsic) properties of a substance are actually relational, because, for Kant, substances can exist in isolation from other substances.

I will defend the claim that Kant has an 'essentialist' position about relational properties. What I mean by 'essentialism about relational properties' is precisely the following: Kant is 'essentialist' in that he considers that some of the properties the substance needs to have to be that substance (its essential and therefore intrinsic properties) are indeed dispositional, determining, or partly determining, some of the relational properties that the substance would have if it were placed in connection with other substances. In the remainder of the article I will just refer to 'essentialism', but it should be understood that I intend the precise sense set out here. It is important to qualify the essentialist claim, as I have done, so that it reads 'determining, or partly determining, some

of the relational properties'. There will be some relational properties of a substance that are jointly determined by the intrinsic essential properties of more than one substance, or that are determined by intrinsic but not essential properties (for example, 'Simmias is taller than Socrates'). Depending on how broadly we construe relational properties, there might also be relational properties that have very little to do with the substance itself, such as 'being such that the Second World War is over', or 'being accompanied by the number 21', if numbers exist and are necessary beings.

These qualifications need not concern us in any detail, just because the voluntarist construal of Kant, represented here by Langton, amounts to the claim that for Kant the essential (and therefore intrinsic) properties of the substance, those properties the substance has when considered in isolation from the superadded connection with other substances, do not include any dispositional properties that determine how the substance would relate to other substances if placed in connection with them (although the substance could still have uninteresting logical intrinsic 'relational' properties such as 'being identical with itself'). For the voluntarist relational properties that determine how the substance relates to other substances are added by the divine will, when the substance is placed in relation with other substances: hence they are extrinsic. Furthermore, and herein lies the contingency of the laws of nature, the divine will can choose which relational properties will be paired with which essential intrinsic properties, such that there are no immanent patterns of entailment from any set of intrinsic properties to any determinate relational properties.

We are now in a position to offer a precise account of what we mean here by 'intellectualism' and 'voluntarism'. One has an intellectualist position if, and only if, God's will is constrained by the structure of the divine understanding, which is itself constrained by an essentialist metaphysics (in the sense defined above), which conceives of some of the relational properties of substances being constrained by the intrinsic dispositions of substances. We have a 'voluntarist' construal of God if, and only if, God's will is unconstrained even by a 'divine understanding', such that none of the relational properties of substances (in connection with other substances) are constrained by the intrinsic properties of substances. God has the power to superadd to intrinsic properties whatever relational properties God wishes. Just as the intellectualist conception of God involves an essentialism about relational properties, the voluntarist conception commits us to a view of relational properties as contingent.

The history of Christian theology, according to a standard narrative at least, 8 reflects these two fundamental philosophical patterns for conceiving the relationship between the creator and the creation. Particular theologians become associated with each of these positions. As what matter to us here are the positions as set out in the standard narrative. I will report these traditional characterizations of theologians, without thereby endorsing them as accurate or fair interpretations of the historical thinkers.

On the intellectualist model, represented by aspects of a thinker such as Aquinas, informed by Platonic and Aristotelian thought, there are immanent patterns of structured order within the essences of things, such that even the divine will is constrained by these patterns of order, which are themselves part of the divine nature (the divine understanding). Here we have something like a Christianized account of Platonic forms, located in the divine mind. In reaction to this, theologians such as Duns Scotus and Ockham are concerned that such patterns of order constrain the sovereign freedom of God. Meditating on the freedom of God suggests, for such thinkers, that there can be no necessary immanent connections in nature: God wills the nature of the connection between created substances, and can change his will at any time. To know the will of God, we need to discover the structure of things as chosen and willed by God, placing an emphasis on both revelation and empirical observation, over and above a priori reasoning, which attends to the structure of our concepts and thought.

Langton represents particularly clearly a tendency to read the role of the divine mind in Kant along voluntarist lines. It is not hard to see the temptation of such a line of thought. Kant tells us that substances can (conceptually speaking) enjoy an independent existence without any relations to other substances, such that it requires the will of God to connect substances so that they enjoy relations amongst one another. Relations between substances arise because of the 'arbitrary will' of God, which can be 'omitted or not omitted at his pleasure' (2004: 121). Langton understands this as suggestive of a looseness of fit between the properties the substance has intrinsically and those that it has in relation to other substances: because God could in principle create the very same substance but superadd different relational/causal properties.

Langton considers that Kant shares with recent philosophers a widely held commitment to the contingency of the causal and relational properties of substances and the laws of nature that govern/describe

these causal and relational properties (2004: 121). On Langton's interpretation 'Kant's intuition' is that 'things could be just as they are with respect to their intrinsic properties, yet different with respect to their causal powers', because of the 'contingency of the connections – if any – between intrinsic properties and causal powers' (2004: 118). So, for example, 'in a world where the laws of nature were different, things might not have an attractive power, despite having the very same intrinsic properties that attractive things actually have' (2004: 118).

Langton insightfully draws the links between such a conception of the contingency of the laws of nature and a doctrine about the freedom of God 'to add or not to add any powers he pleases', such that God's creative act is 'unconstrained and arbitrary', with 'this talk of the arbitrariness of God's actions' being a 'way of talking about the contingency of laws of nature, and hence of the contingency of causal powers' (2004: 119).

Philosophically and historically Langton is correct about the conceptual momentum that runs from a voluntarist doctrine of God to the contingency of laws of nature. The problem with Langton's approach is not so much with the way in which the conceptual possibilities are carved out, but with where Kant is placed on the map. As I will argue in the next section, the problem with this reading is that it misunderstands what Kant actually says about the restricted role of the divine will: although the divine will does play a vital role in 'switching on' relations between substances. Kant is otherwise intellectualist and essentialist about the nature of relations. Langton is correct to observe that substances need an 'arbitrary act of God' (2004: 121), but wrong to assert that therefore they do not supervene, in a strong sense, upon the intrinsic properties of substances.

Where I talk above of a 'strong' sense in which actual relational properties supervene on intrinsic properties,9 I mean that there is no possible world where the divine will could create these substances (with their essential intrinsic properties) and decide to connect these substances, and where certain actual relational properties do not constitute this interconnection between substances. Talking of 'possible worlds' in a context of philosophical theology makes the phraseology unusually literal. There is a possible world where God creates substances, but decides not to connect these substances: in which case actual relational properties do not follow. Passages where Kant defends the position that God needs to will substances into connection in a conceptual moment over and above creating them can be mistaken for a voluntarist denial of strong supervenience between intrinsic and relational properties.

We find Langton making exactly this mistake when she dismisses the possibility that Kant allows 'powers' or 'dispositions' to belong to the intrinsic properties of substances (2004: 117). Langton argues that this cannot be what Kant means, given that 'if the power' is 'itself intrinsic', then 'of course it is reducible to intrinsic properties', which would mean - Langton wrongly thinks - that there would be 'no need whatsoever for God to engage in any creative acts over and above the creation of substances with their intrinsic properties', which would indeed be, as Langton says, 'thoroughly at odds with what Kant wants to say' (2004: 117). What this misses is that God could create substances with potential intrinsic dispositions, which would require the further creative act of putting the substances in connection with one another, in order to turn the dispositional intrinsic properties into actual relational properties.

3. An Intellectualist Interpretation of the Role of the Divine Mind

Indications of Kant's intellectualism can be found in the New Elucidation (1755), with more extensive evidence from his Universal Natural History (1755). In this section I offer an interpretation of relevant passages from these texts, before moving onto the Only Possible Argument of 1763, which clears up any remaining ambiguity, firmly establishing that the early Kant is intellectualist about God and essentialist about relational properties.

In relation to the distinction between the divine will and understanding set out above, it is notable that in the New Elucidation (1755) Kant locates the 'common principle' of the existence and connection of substances in the 'divine understanding (divino intellectu)' (1992: 40; NE 1: 413). It is 'the scheme of divine understanding (intellectus divini schema)' which establishes 'the relations of things to each other', such that 'it is most clearly apparent from this that the universal interaction of all things is to be ascribed to the concept alone of this divine idea (divinae ideae)' (1992: 41; NE 1: 413). Although the divine will is given a role, in that whether or not there are relations between substances is a matter that can 'be admitted or omitted in accordance with His pleasure', the 'reciprocal connection of substances' once activated is located in the 'divine intellect (intellectus divini)' (1992: 42; NE 1: 414). Whenever Kant discusses the reciprocal connection of substances in this work, he refers to the divine understanding, intellect or 'the idea entertained by the Infinite Being' (1992: 44; NE 1: 415).

In the Universal Natural History (1755), Kant is concerned with the way in which naturalist thinkers and religious believers can seem to be in conflict, describing the task of the work to involve reconciling 'the order of nature according to mechanism' and 'the immediate hand of the supreme being' (1969: 17; UNH 1: 221). Kant comments on the 'proofs' for the existence of God 'drawn from the beauty and perfect arrangement of the universe' that, although they constitute 'irrefutable reasons', they are used in a 'bad way' by the 'defenders of religion', who present a 'weak side to their position' (1969: 19; UNH 1: 222). The problem with the proofs is that although, on the one hand, they 'elevate' nature by reflecting on 'harmonies', 'beauty', and the perfect relation of 'means' to the 'end of things', on the other hand, such proofs 'belittle' nature (1969: 19; UNH 1: 223). They do this by claiming that the 'admirable adaptation' we see in the world is 'foreign to nature' left to its own resources, and that nature 'abandoned to its own general laws ... would bring forth nothing but disorder' (1969: 19; UNH 1: 223). The defenders of religion tend to invoke the 'wise plan' of a being who is 'alien' to 'a matter that is wanting in all order or regularity' (1969: 19; UNH 1: 223).

Kant sees two problems with such an approach. First of all, in an intriguing anticipation of Kant's critique of the physico-theological proof for the existence of God in the first Critique (1998: 578-88; CPR A620/B648-A630/B658), Kant complains that it implies a picture where 'matter and its general laws' are in some sense 'independent' of the 'Supremely Wise Power', who then needs to impose providential purposes upon an unformed and chaotic nature, which would imply a being who is 'indeed great, but not infinite', 'powerful, but not all-sufficient' (1969: 20; UNH, 1: 223). As Kant puts it in the first Critique, we end up with the 'highest architect of the world', limited by 'the suitability of the material on which he works' (1998: 581; CPR A627/B655).

Secondly, Kant is convinced that belittling nature and bringing in an interventionist God does not do justice to the necessary patterns of order and harmony that are contained within nature. Kant agrees with the naturalist that the 'useful arrangements' of nature can in fact 'be derived from the most general and simple laws of nature', such 'that matter, while determining itself by the mechanism of its own forces, possesses a

certain rightness in its effects and ... satisfies without compulsion the rules of harmony' (1969: 22; UNH 1: 224-5). Kant sees 'a beautiful and orderly whole quite naturally developing itself', not 'by accident, or of chance', but by the 'natural qualities' that 'necessarily bring it about' (1969: 25-6; UNH 1: 227). Putting strain on the interpretation of Kant offered by Langton, where a voluntarist God oversees contingent laws of nature, Kant tells us that 'matter', by which he means the 'primitive constituent of all things', is 'bound to certain necessary laws', such that 'when it is freely abandoned to these laws it must necessarily bring forth beautiful combinations. It has no freedom to deviate from this perfect plan' (1969: 25-6; UNH 1: 227-8). Again, later on in the same text, 'the elements have essential forces with which to put each other in motion, and thus are themselves a source of life. Matter immediately begins to strive to fashion itself '(1969: 75; UNH 1: 264).

The defender of religion is concerned that 'those harmonies which may be explained from a natural tendency of matter, may prove nature to be independent of Divine providence' (1969: 20; UNH 1: 223). It is at this point that Kant's emphasis on the divine understanding comes into play. The harmonies that necessarily exist in nature have their source in the divine understanding, rather than in the divine will: for this reason, God does not need to bring about the harmonies in nature through a 'special government' (1969: 22; UNH 1: 224). The harmony and lawfulness of the nature can only be supported by being itself grounded in the divine understanding:

How would it be at all possible that things of such diverse nature should tend in combination with each other to effectuate harmonies and beauties so admirably, and even to subserve the ends of such things as are found in some respects outside of the sphere of dead matter (as in being useful to men and animals), unless they acknowledged a common origin, namely, an Infinite Intelligence, an Understanding (Verstand) in which the essential properties of all things have been relatively designed? (1969: 23; UNH 1: 225)

As the 'general and simple laws of nature' have their source in the divine understanding, the believer has nothing to fear from heaping up 'examples which prove that the general laws of nature are fruitful in perfectly beautiful consequences' (1969: 20; UNH 1: 223). We have what we might call a 'supported essentialism' at work. Nature unfolds according to 'its inherent essential striving' which 'brings ... a result necessarily with it', with this essential striving itself constituting 'the most splendid evidence of its dependence on that pre-existing Being who contains in Himself not only the source of these beings themselves but their primary laws of action' (1969: 23-4; UNH 1: 226).

That which seems to be a consideration against the need for God, the orderliness of nature without divine interventions, becomes for Kant a consideration in favour of the need for God, as the source of the general order in nature: 'reasons which, as used in the hands of opponents, are dreaded as prejudicial, are rather in themselves powerful weapons by which to combat them' (1969: 22; UNH 1: 225). Kant's position is a subtle one: in order for nature to be such that it does not require the constant intervention of a divine will, there needs to be a divine understanding, supporting, and sustaining the structure of the laws of nature.

In terms of the voluntarism/intellectualism distinction used above, Kant considers that an intellectualist conception of God is required to explain the order of nature. The defenders of religion adopt a voluntarist conception when they 'belittle' nature, and then invoke an interventionist God to create order out of chaos. That a 'beautiful and orderly whole' is 'necessarily' brought about by 'natural qualities' is an 'undeniable proof of the community of their origin at first, which must have been a universal Supreme Intelligence (Verstand)' (1969: 25-6; UNH 1: 227), with the 'essential character' of the 'elements' of nature 'being a consequence of the eternal idea of the Divine Intelligence (göttlichen Verstandes)' (1969: 74; UNH 1: 263). Proofs for the existence of God do not depend upon a wilful designer, imposing order where we would expect chaos, but upon a structure of design as such, which is not external to God, because it is part of what is meant by Kant's intellectualist conception of God. We can now understand Kant's precise meaning when he complains that proofs for the existence of God, although irrefutable, can be used in a 'bad way' (1969: 19: UNH 1: 222): they are used in a bad way when they lead us to the divine will, rather than to the divine understanding.

Someone keen to defend the voluntarism-contingency model, over the intellectualism-essentialism account, is not entirely without possible resources even at this point. The essentialism I ascribe to Kant is a precise metaphysical commitment, and not simply a tendency to use the language of essences, which could be done by non-essentialist thinkers. It could be suggested that the passages from the Universal History are compatible with the following picture: God creates isolated substances, and in a separate conceptual moment determines – for this world – what the properties of these substances will be. These properties are fixed by the divine will, and insofar as they are indeed fixed, could be called 'essential' properties of the fundamental constituents of nature. According to this account, the apparent 'essentialism' at work in Kant derives from a conceptually prior act of divine fiat, which decides the contents of the divine understanding. At a more ultimate level, God voluntaristically determines what the 'essential' properties of substances (in this world) are going to be; but it would have been possible – there is a possible world – where God could have created the same substances but with different 'essential' properties, such that matter would 'necessarily' (in that world) have always and everywhere 'strived essentially' in a different way.

I do not think that this would be a plausible or natural reading of the texts presented above, but the determined advocate of the voluntarismcontingency interpretation could hold out for this as a possible reconstruction. What such a sceptic would need to see, to be convinced of the intellectualist and essentialist interpretation, would be an explicit statement from Kant that the divine will does not and cannot change or determine the content of the divine understanding, because the divine will is indeed constrained, in any possible world, such that where a certain substance is brought into existence, and put into connection, God has no choice but to create that substance with determinate causal and relational properties. It is in the The Only Possible Argument (1763) where Kant does indeed state precisely this, definitively settling the interpretative issue in favour of intellectualism about God and essentialism about relational properties. 10

In the Only Possible Argument Kant speaks a great deal about the 'essences of things' (1992: 137; OPA 2: 93), which he explains are necessary and binding, even on the will of God. When we encounter order and harmony, it would be 'quite alien to the nature of the things themselves' to say that they 'stand in this harmonious relation' because 'a Creator has ordered them this way' (1992: 140; OPA 2: 96). God does not make the 'claws of a cat' retractable 'with a view to protecting them from wear' (1992: 140; OPA 2: 96). Kant considers that positing this sort of design invites Voltaire's satirical comment that God has given us noses 'so that we can wear spectacles' (1992: 172; OPA 2: 131). Rather, we should say that the 'simple law was the source of further usefulness and harmoniousness, not by art, but rather by necessity', and that there inheres 'in the very essence of things themselves universal relations to

unity and cohesiveness', such that 'a universal harmony would extend throughout the realm of possibility itself' (1992: 140; OPA 2: 96).

Although God decides upon 'the existence of things', he does not decide their internal possibilities; rather the 'internal possibility of things, namely, furnishes Him ... with the material' for the creation (1992: 144; OPA 2: 100). The 'essences of these materials' contain within themselves 'an extraordinary adaptedness to harmony' (1992: 144; OPA 2: 100). Kant is explicit that this 'adaptedness and harmony' should 'not be attributed to a free choice' (1992: 144; OPA 2: 101) of God, because the harmony 'is inherent in the very possibility of the things in question', so that 'the element of contingency, presupposed by any [divine] choice, here disappears' (1992: 146; OPA 2: 103). The 'union of numerous diverse consequences' that we find in the world is 'not a contingent union', and so not a 'product of a free will' (1992: 144; OPA 2: 101). Kant even says that it would be 'absurd' to attribute the 'great harmony' of 'beautiful relations' to 'a will' (1992: 144-5; OPA 2: 101). There is no legitimacy in an appeal to the 'divine power of choice', when the 'essences' of things 'contain within themselves an agreement which is extensive and necessary' (1992: 171; OPA 2: 131).

Kant illustrates this with concrete examples drawn from the harmony and lawfulness that constitute the earth's atmosphere, 'the possibilities of the pump, respiration, the conversion of liquids ... into vapours, the winds, and so on' (1992: 144; OPA 2: 101). For example, 'the characteristic of air, in virtue of which it offers resistance to the material bodies moving in it' is to be 'regarded as a necessary consequence of its nature' (1992: 145; OPA 2: 102). It is 'inherent in the essence of the thing itself' that 'a celestial body in its liquid state should, entirely necessarily ... strive to assume a spherical form', which 'harmonises with the other purposes of the universe better than any other possible form' (1992: 145; OPA 2: 102).

The role of God in the Only Possible Argument is consistent with the earlier texts discussed above. The existence 'of all this harmoniousness along with its consequences' continues to be 'attributed to the power of choice of the first cause' (1992: 145; OPA 2: 101), to the 'wise choice of Him who created them on account of that harmony' (1992: 146; OPA 2: 103). Furthermore, and again consistent with the earlier texts, it would be false to say that the harmonious connection of the essences does not depend upon God. Although they do not depend on the divine will, they do depend entirely on the divine *understanding*. It is not Kant's intention to restrict the extent of the dependence of the creation on the divine mind, as if the essences of things are somehow independent of God. Rather, Kant seeks to differentiate two types of total dependence on God, which Kant names 'moral' and 'non-moral' dependency. We have a 'moral' dependency when 'God is the ground of that thing through his will', and a 'non-moral' dependency in the case of the 'internal possibility of things', of which the divine understanding is the 'ultimate ground' (1992: 143-4; OPA 2: 100).

It is this distinction between moral and non-moral dependency on God that lies behind Kant's discussion in the Only Possible Argument of the distinction between 'existence' and the properties that constitute an essence. This anticipates Kant's Critical refutation of the ontological argument (1998: 563-9; CPR A592/B620-A602/B630), which revolves around the observation that 'existence' is 'not a real predicate' (1998: 567; CPR A598/B626). Kant opens the Only Possible Argument by observing that when God utters 'His almighty Let there be over a possible world' by bringing it into existence he 'he adds no new predicate to it', but 'posits it with all its predicates' (1992: 120; OPA 2: 74). This understanding of existence, as not adding any new predicates, is related to Kant's essentialist and intellectualist position that 'all determinations and predicates of the real thing are also to be found in the mere possibility of that same thing' (1992: 120; OPA 2: 75).

4. Wider Implications for the Interpretation of Kant

The interpretation of Kant that I present here places him in considerable agreement with Leibniz and Wolff on the two issues of intellectualism about the divine mind and essentialism about nature. 11 Schönfeld (2000: 206) draws attention to the way in which for Leibniz essences 'exist in a certain realm of ideas ... in God himself' as the 'reason for things must be sought in metaphysical necessities or in eternal truths' (Leibniz 1989: 151), with God's creative act restricted to choosing from the essences contained in the divine understanding:

Since ... God's decree consists solely in the resolution he forms, after having compared all possible worlds, to choose that one which is best, and bring it into existence with all that this world contains, by means of the all-powerful word Fiat, it is plain to see that this decree changes nothing in the constitution of things: God leaves them just as they were in the state of mere possibility, that is, changing nothing either in their essence or nature or even in their accidents, which are represented perfectly already in the idea of this possible world. (Leibniz 1985: vol. 1, pp. 52, 151)

Similarly Wolff restricts the extent to which one can 'appeal to the will of God', observing that as the 'divine understanding is the source of essence, or of what is possible', and the divine will 'the source of actuality', one cannot 'appeal to the will of God when asking about how something is possible, but rather only when one desires to know why something is actual' (Wolff 2009: §989, 51).

This is of more than antiquarian interest. There has recently been a significant and growing minority report against the Humean orthodoxy about the contingency of laws of nature. 12 For example, Ellis argues that the actual practice of science requires some form of 'essentialism' about the identity of substances, properties, or events, such that the 'laws of nature are what they are, because things of various kinds have the dispositional properties that they have essentially' (2001: 1). In line with our discussion above, Ellis construes essential properties of a substance as properties 'in virtue of which an object/process is the kind of thing it is' (2001: 21). One of the central issues for Ellis, and also for Mumford (2004: 149-53, 183-6) and Bird (2001: 267-74), is a concern about the 'quidditism' implied by the Humean picture: the notion that a substance (property or process) can somehow be the *same* substance (property or process) across different worlds, even if all of its causal relations are entirely different.¹³ The Humean picture allows this because dispositional and relational properties are not considered to be part of the identity of substances.

From our discussion of Kant above it should be clear that he would agree with this concern about quidditism, and that he would be essentialist in thinking that the identity of substances is necessarily bound up with (potential) relational properties of the substance, which constitute the essence of that substance. When Kant is mentioned in the new essentialist literature, as he is occasionally, he is listed as one of the ancestors of the Humean contemporary orthodoxy about the contingency of the laws of nature, along with Descartes and Newton (Mumford, 2004: 13, 69, 185; Ellis 2001: 1, 263). 14 With regard to his early philosophy at least, this is incorrect.

The role of God in the contingent conception of laws of nature has not gone unnoticed in the new essentialist literature. Mumford argues that talking about 'laws of nature' as the source of regularities in nature only makes sense against a theistic backdrop, where there is a being who can issue and impose such commands, so that 'only theists' need to take such 'law-talk seriously' (2006: 201). Ellis comments that when in the early modern period the laws of nature are no longer considered to be immanent in the structure of things. God is then invoked as the source of these laws (2001: 261-3). The 'contemporary orthodoxy', according to this analysis, is what happens when God is abandoned, but the voluntaristic conception of laws operating on an inert world anachronistically remains.

Appreciating the vital role played by God in Kant's thought helps to open up a different historical and conceptual texture: for Leibniz, Wolff, and Kant, God is vital, but not in his commanding voluntaristic capacity. God, specifically the divine understanding, is crucial as the source of the structure of reason itself, within which are contained all the possible combinations of properties that constitute the essences of things found in the world. A reference to God as sustaining the laws of nature is not necessarily a commitment to voluntarism about God, or to the contingency of imposed laws of nature. It would, in principle at least, be possible for the divine understanding to play a similar explanatory role, albeit suitably adapted, in supporting a position aligned with the 'new scientific essentialism', with the divine mind sustaining the immanent necessary structural properties of fundamental particles, processes, and events.

As well as placing Kant more plausibly in his intellectual context, this interpretation of Kant's pre-Critical philosophy opens up intriguing possibilities, which will only be briefly touched on here, for how to interpret aspects of Kant's later Critical philosophy, specifically his transcendental idealism, and his notion of freedom.

Our discussion has two implications for how to read Kant's transcendental idealism: one more negative and the other more constructive. On the negative side, pressure is placed on approaches to transcendental idealism that trace strong lines of continuity between the Critical noumenal/ phenomenal distinction and Kant's pre-Critical distinction between the intrinsic and extrinsic properties of substances. Langton's account is one of the more developed interpretations along these lines (Langton 2004: 97-123), although other commentators have experimented with similar views, if only to reject them (Ameriks 2000: 267-77).

Langton, as we have seen, considers that the 'intrinsic' properties of substances, for the early Kant, do not in themselves determine what the relational properties of substances will be. God has the ability to pair

up intrinsic and relational properties as God wills, so that relational properties are irreducible to intrinsic properties. Langton goes on to argue that there is an epistemic dimension to this that continues to be relevant in Kant's Critical work: because any property of a substance that we know about is by definition a relational property (relating to our cognition), and because relational properties are only loosely and contingently fitted to intrinsic properties, we can never know the intrinsic properties of things-in-themselves. Kant's transcendental idealism is to be understood as a thesis about our epistemic humility, much of which is already implicitly in place in Kant's early philosophy, in terms of our inability to know the intrinsic properties of substances.

Whether or not a plausible account along these lines can be given of Kant's later philosophy, our discussion shows that it does not describe Kant's pre-Critical position, which Langton draws on extensively when justifying her interpretation of Kant's mature philosophy. Relational properties are determined by the intrinsic properties of substances, and Kant seems to indicate that knowledge of the essential intrinsic properties of substances is therefore possible. He talks in the Only Possible Argument of our 'mature judgement' concerning the 'essential properties of things known to us through experience', which enables us to 'perceive unity ... and harmoniousness', and to 'argue regressively to a single principle of all possibility', establishing that the 'essence of things themselves' indicates 'an ultimate common ground' (1992: 136; OPA 2: 92). In the Inquiry Concerning the Distinctness of the Principles of Natural Theology and Morality (1763), Kant is positive about our epistemic access to essences. In the context of talking about our knowledge of a physical world and metaphysics Kant writes that 'even if you are not acquainted with the complete essence of the thing, you can still safely employ those characteristic marks to infer a great deal from them about the thing in question' (1992: 259; 2: 286).

On the more positive side, our discussion is suggestive for an interpretation of transcendental idealism, which I develop extensively elsewhere (Insole, 2011a, 2011b). At this point I offer only suggestive hints. In his pre-Critical philosophy, as we saw above in the discussion of the 'Physical Monadology', Kant considers that space (and time) are the external appearances of relational properties that are superadded to substances by the divine mind. In his Critical philosophy, Kant continues to think of space and time as features of reality that arise from mind, except that this mind is now the human noumenal mind, rather than the divine mind. 15 Kant has a number of reasons for making this

shift, some epistemic and others relating to his concern to make a noncompatibilist conception of freedom possible for human beings (in as much as we are regarded as noumenal beings), which Kant begins to want in the 1770s (prior to which he was content with an exhaustively compatibilist account of human freedom).16

Having in mind this pre-Critical background enables us to understand how many features of reality as we experience it can be, for the Critical Kant, in some sense mind-dependent, vet also given and non-negotiable. In his early philosophy, the dominance of intellectualism and essentialism ensures that a reliance upon the divine mind does not imply a constructive or voluntaristic divine mind; similarly in his Critical philosophy, a reliance on mind (albeit a different sort of mind) does not imply constructivism or voluntarism, because of the given and nonnegotiable structure of the mind-dependent structures. Furthermore, and also to be discussed fully elsewhere, properly understanding the role of the divine mind enables us to construe continuities in Kant's conception of freedom, running from his pre-Critical to the Critical writings. It is tempting to think that God is constrained by the structure of reason itself; but that would not be quite right for Kant, as the structure of reason is itself identical to the understanding of God. The structure of reason constitutes the understanding of God, and equally, the understanding of God is the structure of reason itself. Although the divine will is constrained by the structure of reason, God is not constrained, because the structure of reason is not in any real sense external to God. This is an intimation of something that will become very important to Kant: transcendental freedom and autonomy. We see it here first, albeit that it is enjoyed only by the divine mind.

Notes

References to Kant use the author-date system for the trans./edn used, where applicable, and – with the exception of the Critique of Pure Reason – a reference to the Akademie edition, Kant's gesammelte Schriften, ed. Royal Prussian (later German) Academy of Sciences (Berlin: Georg Reimer, later Walter de Gruyter & Co., 1900–). These references are prefaced by an abbreviation of the title of the work, as set out below. Citations to the first Critique are to the A (1st edn) or B (2nd edn) pages, as translated in The Cambridge Edition of the Works of Immanuel Kant, Critique of Pure Reason (CPR), ed. and trans. Paul Guyer and Allen Wood (Cambridge: Cambridge University Press, 1998). Where available I use a standard trans. All trans. by David Walford are from The Cambridge Edition of the Works of Immanuel Kant: Theoretical Philosophy, 1755–1770 (Cambridge: Cambridge University Press, 1992).

- LFGedanken von der wahren Schätzung der lebendigen Kräfte (1747). Thoughts on the True Estimation of Living Forces, my trans., 1: 1-182.
- NE Principiorum primorum cognitionis metaphysicae nova delucidatio (1755). New Elucidation of the First Principles of Metaphysical Cognition, trans. Walford, 1: 385-487.
- UNH Allgemeine Naturalgeschichte und Theorie des Himmels (1755). Universal Natural History and Theory of the Heavens, trans. W. Hastie in edn by Milton K. Munitz (Ann Arbor, MI: University of Michigan Press, 1969).
- РМ Metaphysicae cum geometria iunctae usus in philosophia naturali cuius specimen I. continet monadologiam physicam, quam consentiente amplissimo philosophorum ordine (1756). The Employment in Natural Philosophy of Metaphysics Combined with Geometry, of Which Sample I Contains the Physical Monadology, trans. Walford, 1: 473-87.
- OMVersuch einiger Betrachtungen über den Optimismus (1759). An Attempt at Some Reflections on Optimism, trans. Walford, 2: 27-35.
- OPADer einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes (1763). The Only Possible Argument in support of a Demonstration of the Existence of God, trans. Walford, 2: 63-163.
- ICUntersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und der Moral (1763). Inquiry Concerning the Distinctness of the Principles of Natural Theology and Morals, trans. Walford, 2: 273-301.
- I Although God can choose whether or not to create a world at all, this does not mean that God can choose which world to create, if God decides to create substances, and to place them in connection with one another, thus constituting a world. In 1759 Kant endorses the Leibnizian position that God chooses to create this world because it is the best possible world (1992: 71-6; OM 2: 29-35). What matters for our purposes is that Kant thinks that whether or not any created substances exist at all, and whether they are connected so as to constitute a world, is subject to the divine will.
- 2 For extensive treatments of the importance of Newton to Kant's pre-Critical philosophy, see Cohen (1885), Friedman (1992) and Schönfeld (2000).
- For an extensive account of Kant's intellectual context, to which I am indebted in this section, see Watkins (2005: 23-100).
- 4 See Guyer (1987: 11–12). Guyer makes the suggestion that in the 'principle of succession' we see Kant anticipating the arguments of the Refutation of Idealism (B275-94).
- For an interpretation of the principle of coexistence as a response to such a Leibnizian position see Langton (2004: 107-23). In my treatment of the passage as directed at Crusius, I am indebted to Watkins (2005: 140-9).
- 6 See Buroker (1981: 42), and Langton (2004: 101)
- 7 For a helpful survey see Francescotti (1999: 560-609). Attempts to capture the distinction revolve around notions such as 'duplication', the properties the substance would have in any possible world (Lewis 1983: 51-70); 'loneliness and lawlessness', the properties the substance would have if it were alone and unconstrained by causal laws (Kim 1982: 51-70); and 'independence', the properties the substance would have

- whether or not it is accompanied by other substances (Vallentyne 1997: 209-19; Langton and Lewis 1998: 333-45).
- 8 For a more extensive discussion, to which I am indebted, see Oakley (1961: 433-57).
- See Kim (1984: 153-76).
- 10 For reconstructions and evaluations of the success of the proof for the existence of God offered by Kant in this text, see Fisher and Watkins (1998), Adams (2000), Schönfeld (2000: 183–208), Wood (1978: 64–71), Chignell (2009), and Stang (2010). For our interpretative purposes here, nothing hangs on the success or otherwise of Kant's proof. These discussions concern Kant's claim that an absolutely necessary being is required to ground all possibility as such. The issue of the relative priority of the divine will or intellect in grounding possibility is not the focus of interest, although Chignell (2009: 181) construes Kant along more intellectualist lines, and Stang (2010: 281, 296-7) along more voluntarist lines. Stang interprets Kant's claim that 'possibility is given as a determination existing within the real' (2: 79) to mean that possibilities are grounded in 'God's unlimited powers' (2010: 281), and so that 'what is possible depends on what ... [God] has the power to choose'. Stang gives two reasons - contra Chignell - as to why this is not an inappropriately voluntarist reading of Kant. First of all, Stang points out that his claim is not 'that what is possible depends on what God does choose but on what he has the power to choose, and that depends on his nature' (2010: 281). Secondly, Stang argues that the antivoluntarism expressed in Kant's claim that 'the will makes nothing possible' (1992: 143-4; OPA 2: 100) is in fact directed at Descartes's 'infamous doctrine of the creation of the eternal truths by God' (2010: 297), whereby even the laws of logic and mathematics are subject to divine command. As my discussion shows, Stang's interpretation is not supported by the text, as Kant immediately applies the claim that 'the will makes nothing possible' to the essences of created substances, which make up, for example, the earth's atmosphere. As we have seen above, this is consistent with Kant's approach in UNH and NE. Whether God chooses to create x is indeed dependent upon the divine nature – as Stang observes – but what is created when x is brought into existence is dependent not on 'God's unlimited powers', but on the essences of things, which essences are in turn (non-morally) dependent upon the divine understanding. Adams (2000) and Chignell (2009) discern a difference between Leibniz and
- Kant here: for Leibniz, God grounds possibilities by thinking them, whilst for Kant, God grounds all possibilities by exemplifying them (Adams 2000; Chignell 2009). Stang (2010: 290-1) disputes this reading of Kant. For our purposes - of ascribing essentialism and intellectualism to both thinkers - nothing turns on this dispute. Although this would take further discussion, one might wonder what the supposed distinction amounts to in the end: if, for Kant, possibilities are exemplified in the divine intellect, then by virtue of divine omniscience, all possibilities would also be eternally thought in the divine mind; and coming from the other end, if all possibilities are eternally thought by God, they could also be said to be exemplified in the divine understanding. See Adams for an alternative suggestion as to how a 'representation thesis like Leibniz's' might 'lead to an exemplification thesis like Kant's' (2000: 435-9).
- 12 As well as Mumford (2006) and Ellis (2001), see also Shoemaker (1980), Swoyer (1982), Ellis and Lierse (1994: 27-45), Martin (1994), and Bird (2001: 267-74).
- Mumford prefers to abandon talk of 'laws' in nature, whereas Ellis and Bird want to retain the language, but to place it on a proper footing. Nonetheless, there is considerable agreement even here: Ellis understands laws of nature to describe regularities that arise because of the dispositions and causal properties of substances,

- processes and events. On this basis, Mumford could accept talk of 'laws of nature', as derivative upon dispositions, whilst denying that laws have a fundamentally explanatory role in nature.
- 14 For a discussion of the history of the concept of 'laws of nature', see also Ruby (1995: 289-315).
- Laywine is insightful on this point, arguing that in his Critical philosophy, Kant draws on his 'early general cosmology', by assigning 'to our understanding' tasks that were previously reserved for God, when conceived of as 'governing universal interaction among created substances' (1993: 9-10).
- 16 I am aware of the complexities involved in applying the compatibilist/non-compatibilist distinction to Kant: see Insole 2011b for a more extensive discussion.

References

- Adams, Robert (2000) 'God, Possibility and Kant'. Faith and Philosophy, 17/4, 425-40. Ameriks, Karl (2000) Kant's Theory of Mind: An Analysis of the Paralogisms of Pure Reason. Oxford: Oxford University Press.
- Baumgarten, Alexander (1926) Metaphysica. In Kant's gesammelte Schriften. Vol. 17, pp. 23-226. Berlin: de Gruyter & Co.
- Bird, Alexander (2001) 'Necessarily, Salt Dissolves in Water'. Analysis, 61, 267-74.
- Buroker, Jill (1981) Space and Incongruence: The Origin of Kant's Idealism. Dordrecht: Reidel Publishing Co.
- Chignell, Andrew (2009) 'Kant, Modality, and the Most Real Being'. Archiv für Geschichte der Philosophie, 91, 157-92.
- Cohen, Hermann (1885) Kant's Theorie der Erfahrung. Berlin: Dümmler.
- Cover, J. A. and O'Leary-Hawthorne, John (1999) Substance and Individuation in Leibniz. Cambridge: Cambridge University Press.
- Crusius, Christian August (2009) Sketch of the Necessary Truths of Reason. In Eric Watkins (ed.), Kant's Critique of Pure Reason: Background Source Materials (Cambridge: Cambridge University Press), 136-79.
- Ellis, Brian (2001) Scientific Essentialism. Cambridge: Cambridge University Press.
- Ellis, Brian and Lierse, Caroline (1994) 'Dispositional Essentialism'. Australasian Journal of Philosophy, 72, 27-45.
- Fisher, Mark, and Watkins, Eric (1998) 'Kant on the Material Ground of Possibility: From "The Only Possible Argument" to the "Critique of Pure Reason". Review of Metaphysics, 52/2, 369-95.
- Francescotti, Robert (1999) 'How to Define Intrinsic Properties'. Nous, 33/4, 560-609.
- Friedman, Michael (1992) Kant and the Exact Sciences. Cambridge, MA: Harvard University Press.
- Guyer, Paul (1987) Kant and the Claims of Knowledge. Cambridge: Cambridge University Press.
- Insole, Christopher (2011a) 'Kant's Transcendental Idealism and Newton's Divine Sensorium'. Journal of the History of Ideas, 72/3, 413-36.
- (2011b) 'Kant's Transcendental Idealism, Freedom and the Divine Mind'. Modern Theology, 27/4, 608-38.
- Kant, Immanuel (1992) Theoretical Philosophy 1755-1770. Cambridge: Cambridge University Press.
- Kim, Jaegwon (1982) 'Psychophysical Supervenience'. Philosophical Studies, 41, 51-70.
- (1984) 'Concepts of Supervenience'. Philosophy and Phenomenological Research, 45/2, 153-76.

- Langton, Rae (2004) Kantian Humility: Our Ignorance of Things in Themselves. Oxford: Oxford University Press.
- Langton, Rae and Lewis, David (1998) 'Defining Intrinsic'. Philosophy and Phenomenological Research, 58, 333-45.
- Laywine, Alison (1993) Kant's Early Metaphysics and the Origins of the Critical Philosophy. North American Kant Society Studies in Philosophy, 3. Atascadero, CA: Ridgeview.
- Leibniz (1985) Theodicy. Ed. Austin Farrer and trans. E. M. Huggard. La Salle, IL: Open
- Leibniz (1989) 'The Ultimate Origination of Things'. In R. Ariew and D. Garber (eds.), Philosophical Essays (Indianapolis/Cambridge: Hackett).
- (1998a) 'New System of the Nature of Substances and their Communication, and of the Union which Exists between the Soul and the Body' (1695). In R. S. Woolhouse and Richard Francks (trans and eds), Philosophical Texts (Oxford: Oxford University Press), 143-52.
- (1998b) 'Extract from a Letter Written by Monsieur Leibniz about his Philosophical Hypothesis' (1696) ('Third Explanation of the New System'). In R. S. Woolhouse and Richard Francks (trans and eds), Philosophical Texts (Oxford: Oxford University Press), 191-3.
- (1998c) 'Monadology (1714)'. In R. S. Woolhouse and Richard Francks (trans and eds), Philosophical Texts (Oxford: Oxford University Press), 267-81.
- Lewis, David (1983) 'Extrinsic Properties'. Philosophical Studies, 44, 51-70.
- Martin, C. B. (1994) 'Dispositions and Conditionals'. Philosophical Quarterly, 44, 1-8. Mumford, Stephen (2004) Laws in Nature. London: Routledge.
- Oakley, Francis (1961) 'Christian Theology and the Newtonian Science: The Rise of the Concept of the Laws of Nature'. Church History, 31/4, 433-57.
- Ruby, J. (1995) 'The Origins of "Scientific Law"'. In F. Weinart (ed.), Laws of Nature: Essays on the Philosophical, Scientific and Historical Dimensions (Berlin: de Gruyter),
- Schönfeld, Martin (2000) The Philosophy of the Young Kant. Oxford: Oxford University Press.
- Shoemaker, Sydney (1980) 'Causality and Properties'. In Peter van Inwagen (ed.), Time and Cause (Dordrecht: Reidel).
- Stang, Nicholas (2010) 'Kant's Possibility Proof'. History of Philosophy Quarterly, 27/3, 275-99.
- Swoyer, Chris (1982) 'The Nature of Natural Laws'. Australasian Journal of Philosophy, 60, 203-23.
- Vallentyne, Peter (1997) 'Intrinsic Properties Defined'. Philosophical Studies, 88, 209-19. Watkins, Eric (2005) Kant and the Metaphysics of Causality. Cambridge: Cambridge University Press.
- Wolff, Christian (2009) Rational Thoughts on God, the World and the Soul of Human Beings, Also All Things in General (1720). In Eric Watkins Kant's Critique of Pure Reason: Background Source Materials (Cambridge: Cambridge University Press), 5-54.
- Wood, Allen (1978) Kant's Rational Theology (Ithaca, NY: Cornell University Press).