THE METAPHYSICS OF DIVINE CAUSATION

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ABSTRACT

It is something of an orthodoxy that the nature of causation can be characterised by the following metaphysical theses: that causes do not necessitate their effects, that causes must temporally precede their effects, that causation is governed by laws of nature, that causation entails counterfactual dependence, and that causation is not systematically overdetermined. Two further commonly accepted metaphysical claims are that causal notions give us the correct tools to properly understand agency, and that the causes of actions are mental events. Classical theism, however, is comprised by certain commitments which seem to be in direct tension with each of these metaphysical theses. God is understood to be causally efficacious – a divine being who creates, sustains, and intervenes in worldly affairs – and so who is, indeed the, *paradigmatic* causal agent. Further, God is said to be atemporal, non-physical, and such that he exists independently of all else. The God of classical theism is also characterised as being omnipotent, at least in the sense that whatever he wills to be the case cannot fail to be the case. The apparent tension between these metaphysical theses which concern causation and those which concern God thus threaten the very coherence of the notion of divine causality. The goal of this thesis is therefore to examine these *prima facie* theistically problematic theses concerning causation, and to consider ways of making room for a coherent notion of divine causality. In some cases, it will argue that certain causal theses ought to be rejected, in others, it will find ways of resolving the tension.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

@:   The actual world

AT: Aseity Thesis

CECD: Causation Entails Counterfactual Dependence

CET: Causation Entails Temporality

DO: x is omnipotent = whatever x wills is necessarily actualised

HSCR: Humean Supervenience of Causal Relations.

IIPs: Interesting Impossible Propositions

NSCO: No Systematic Causal Overdetermination

ODC: Originating Divine Cause

RO: For all states of affairs x, if God wills that x occur, then x will occur

RA: For all divine actions y, if God performs y, y will be perfectly good.

SIC: Strangeness of Impossibility Criterion

ST: Sovereignty Thesis

TT: Triviality Thesis

WD: Worldly-Dependence thesis

INTRODUCTION

"Nature is but a name for an effect,
Whose cause is God."
From 'The Task'
By William Cowper (1731–1800)

I do not believe in God. Why, then, have I devoted the last four years to writing a thesis which defends the coherence of divine causality? Firstly, I have always been interested in the broadest issues within metaphysics, and looking at the nature of causation from the point of view of theism allows for a wide perspective on this: *if there can be divine causation, what does this tell us about the nature of causation itself?* Secondly, I have always found myself equally concerned with discovering the links between various positions as I am with discovering with truth or falsity of those positions. I am particularly interested in the hypotheticals: *suppose x were true, what follows?* This thesis is concerned with the following hypothetical: *If causation is necessarily characterised by certain features, might that mean that God cannot, after all, be a cause?*

There is an apparent tension between a number of metaphysical theses which characterise causation on the one hand, and those metaphysical theses which characterise the divine nature on the other. This tension threatens the very coherence of the notion of divine causality. The goal of this thesis is to examine those causal theses that are theistically problematic, and to consider ways of making room for a coherent notion of divine causality. In some cases, it will argue that certain causal theses ought to be rejected, in others, it will find ways of resolving the apparent tension.

This thesis is therefore as much of an exercise in the metaphysics of causation as it is in the analytic philosophy of religion; it explores the links between the two. Consequently, this research should be of interest, not only to the theist, but to the metaphysician, as well. Indeed, if causation can (or cannot) occur in the divine case, what does this tell us about the *logical limits* of causation? Further, though, if one is an atheist, then one really ought to have some justification for one's atheistic belief. One potential weapon in the atheist's arsenal is the contention that the concept of divine causality is incoherent. If it turns out that divine causality is indeed a coherent notion, though, then one will not be justifiably able to reject theism on *these* grounds (i.e. because it is metaphysically impossible for there to be a divine cause). Some

other grounds will, in this case, need to be sought to justify one's being an atheist as opposed to agnostic. Why, though, is there a need to defend the coherence of divine causality? What are the claims being made within the metaphysics of causation which pose a threat to the notion of a divine cause? They are as follows:

(i)   Causes do not necessitate their effects.

(ii)   Causation is law-governed.

(iii)   Causation is not systematically overdetermined.

(iv)   Causes temporally precede their effects.

(v)   Causation entails counterfactual dependence.

A further claim commonly held within metaphysics is that:

(vi)   Agency is a causal notion.

Although these claims are very often taken to be characteristic of causation, I do not mean to be taken as claiming that they offer an *exhaustive* characterisation of this notion. It is not the goal of this thesis to settle the question of what causation is. Rather, the goal of this thesis is to consider what theists can say about the possibility and nature of divine causation, given these commonly accepted claims.

The thought that causes do not necessitate their effects comes from David Hume, who famously argued that there are no necessary connections in nature, and that necessary connection is not essential to the concept of causation. Hume maintains that it is our awareness of the constant conjunction between those objects which stand as (supposed) causes and effects that is the source of our idea of necessary connection, and not the causal relation itself. Hume's idea is that, if we can take any instance of causation, and imagine, without incoherence, the cause occurring without the effect, then it must not be the case that any cause necessitates its effect. In his words, '[t]here is no object, which implies the existence of any other if we consider these objects in themselves, and never look beyond the ideas which we form of them.' (1739: 51)

The idea that causation is law-governed comes from the thought that, since there are numerous widespread regularities with regards to how objects interact causally throughout nature over time, there must be some explanation for why this is the case. The most common

explanation given is that causation is governed by natural *laws* – these prescribe the way that objects interact with each other, and ensure that events unfold in a regular manner. Advocates of this thesis include John Carroll (1994, 2008), Marc Lange (2009), and Tim Maudlin (2007).

To say that causation is not systematically overdetermined is to say that it is not the case that there are multiple, distinct, singularly sufficient causes for the same effect. One often-cited example of overdetermination is that of a firing squad, whose members simultaneously shoot at the same target – each shot is sufficient for causing the death of the target, though, for any squad member it will not be the case that, had they *not* shot, the target would have survived (since the shots from other members would have been sufficient causes of death). Individual cases of overdetermination such as these are not too problematic, but given that these kinds of firing squad cases do not appear to be systematically present in nature, many believe that a successful metaphysics of causation ought to rule out systematic overdetermination. The idea that causation should not be systematically overdetermined is often implicitly assumed, but those such as Jaegwon Kim (1993, 2001) and Trenton Merricks (2001) explicitly endorse the thesis (i.e. claim (iii)). Kim, for example, endorses the *causal exclusion principle*: if a property E has a sufficient cause C, then no other property C^* distinct from C can be a cause of E (2001: 276), and Merricks even denies the existence of non-living macrophysical objects on the grounds that if such things existed, they would overdetermine their effects since those effects would also be caused by their microscopic parts.

Causation is considered by many philosophers to be a necessarily temporal relation (see, for example, Wesley Salmon (1994) and Phil Dowe (1992)). There are a number of reasons for this (i.e. claim (iv)), but one of the major reasons cited is that all causes must temporally precede their effects (see e.g. Hume (1748: 79)). This claim is, then, the denial of the possibility of retro- or backwards-causation. A further reason is the claim that causes and their immediate effects must be (spatio-)temporally contiguous, i.e. that there can be no action at a temporal (or spatial) distance.

The claim that causation entails counterfactual dependence (hereafter CECD) may be understood as the claim that, for any true causal statement, say, for example, that 'C causes E' a corresponding counterfactual claim (that is, a conditional statement in the subjunctive mood) will be true – in this case, that 'if C had not occurred, then E would not have occurred either'. This thesis (which is endorsed by, most notably, David Lewis (1973c)) is supported by our ordinary thinking about individual cases of causation. Most would say that I couldn't have been the cause of window smashing if it would have smashed regardless of how I had acted; we'd

also take it that the brick *did* cause the window to smash precisely because we take it that the window would not have smashed if the brick hadn't hit it.

Lastly, to say that agency is understood in causal terms is just to say that action is typically taken to be a causal notion. If it's true that an agent performed an action, then it will be true that an agent caused something, or brought something about. Many philosophers, including Donald Davidson (1963) and Randolph Clarke (2003), also talk about there being causes of actions.

Each of these claims, are, however, seemingly in tension with classical theism. Classical theism, perfect being theology, or *Anselmian* theism – so-called, since it is the characterisation of God outlined in Anselm's *Proslogion* – has at its core the thesis that God is a perfect, divine, personal being – he is *that than which no greater can be conceived*. Most Anselmian theists hold that this core thesis entails the omni-attributes: God is an omniscient, omnipotent and omnibenevolent being. As Yujin Nagasawa explains: 'The idea is that if God is the being than which no greater can be thought, then he is not merely knowledgeable, powerful and benevolent, but also maximally knowledgeable, maximally powerful and maximally benevolent.' (2007: 577) In addition to this, Anselmian theism conceives God as a being who has eternality, aseity, and sovereignty as essential properties. The aseity thesis (hereafter, AT) is the claim that God exists independently of all else. The sovereignty thesis (hereafter ST) is the complementary thesis that everything external to God is dependent on him for its existence, and is under his guidance and control. The claim that God is eternal, however, is subject to much controversy. For, while perfect being theologians are in agreement that divine eternality is demanded by perfection (i.e. the core thesis), there are different interpretations of divine eternity. On the one hand, there are those who construe eternity as timelessness; on this view, God is *a*temporal – he has no temporal properties and bears no temporal relations to anything. On the other hand, there are those who interpret eternity as sempiternality – this is the view on which God is said to be *omni*temporal in the sense that he exists at every moment of time throughout history. The former view is the traditional view, and its advocates include such major historical figures as St Anselm (c. 1033–1109), St. Augustine (c. 354–430), Boethius (480–c.525), and St. Thomas Aquinas (1225–1274), as well as, in more recent times, Paul Helm (1988), Katherin Rogers (2000), and Brian Leftow (1991a), and Eleonore Stump and Norman Kretzmann (1981). Given that it is the traditional view, the atemporal conception of eternity is the one assumed in this thesis.

As we have seen, classical theism has a number of central tenets. Two of these which I have yet to mention are that *God created the world*, and that *God conserves the universe in existence*

from moment to moment. It is also very common for theists to maintain that God can *intervene in worldly affairs, perform miracles, respond to prayers*, etc. Given that each of these theistic claims seem to be distinctly causal, it is fair to say that classical theism takes God to be a causal agent.

These theistic claims, however, are under threat once they are held in conjunction with (i)-(vi): the metaphysical theses about the nature of causation which were outlined above. First, take (i), the claim that causes do not necessitate their effects. This claim does not appear to allow room for divine causality. Since, if God is an omnipotent agent, then whatever he wills to be the case will, *as a matter of necessity*, be the case. There are no possible defeaters to God's bringing about his desired states of affairs. We appear to have a direct conflict, then, between divine omnipotence and thesis (i), something that has not gone unnoticed by Quentin Smith (1996), who argues that it is *logically impossible* for the universe to have an originating divine cause (ODC). This is because, he contends, no cause can logically necessitate its effects, but since, under any possible interpretation, an ODC would contravene this principle, an ODC is impossible. I begin Chapter I by setting out Smith's argument and the reasoning behind its premises. I then contend that in focusing on *logical* possibility, Smith's argument makes a category error. In light of this, I reformulate Smith's argument in terms of *metaphysical* possibility. I then point out that the theist may endorse a realist interpretation of dispositional properties which, taken together with a certain interpretation of divine omnipotence will present Smith (and his re-formulated argument) with an irresolvable dilemma. Further, I show that even if it were the case that this dilemma was avoidable, the theist is perfectly entitled and able to reject one of the premises of the updated argument. I conclude that Smith is unsuccessful in demonstrating both that an ODC is logically impossible, and that it is metaphysically impossible.

The thesis that causation is law-governed, claim (ii), is problematic on account of being in tension with ST: the claim that everything distinct from God is created by him and is under his guidance and control. For it follows from ST that God must somehow be responsible for natural laws and regularities. Claim (ii) is also at odds with AT: the claim that God exists independently of all else. Are God's actions governed by laws? If so, God must then be restricted in some way, *contra* AT. If laws of nature have a governing role, does this mean that God is not truly sovereign over his creation? Are laws of nature abstract entities? If so, does that mean that God cannot create them? – these are the questions tackled in Chapter II. I begin by arguing that because of the problems just listed, theists need an account of the relation between (a) regularities, (b) laws, and (c) God. I examine competing accounts of laws of nature

and conclude that dispositional essentialism provides the most satisfactory explanation of the relation between (a), (b), and (c).

As noted above, the God of classical theism is supposed to be the creator and sustainer of all worldly affairs. Yet, if creation and conservation are understood to be causal notions, then all creaturely action will seemingly be systematically overdetermined. As we will see, this is because for all cases of creaturely action, there will be sufficient divine *and* non-divine causes. This means, therefore, that claim (iii), that there is no systematic causal overdetermination, would be false under theism. Investigation of this issue is the focus of Chapter III. The chapter begins by outlining the standard models of conservation and the problems they face, which include the problem of entailing systematic causal overdetermination. I next argue, however, that the failure of these models shows us that there are a number of desiderata which any successful model of divine conservation ought to meet. Following this, I argue for a non-creative model of divine conservation which endorses spacetime substantivalism—the view that space and time (or spacetime) are fundamental entities which exist independently of their contents. If the theist allows that God conserves worldly objects in existence indirectly – by means of directly causing the spacetime manifold to exist – then the worries facing the extant models can be avoided and the relevant desiderata for an account of divine causality will be met. After considering and rebutting some potential lines of objection I conclude that this substantival account provides the best model of conservation on offer.

The thesis that causation is a necessarily temporal relation (claim (iv)) seems to be an extremely popular one within metaphysics, as does the claim that if C is an unmediated cause of E, then there must be no temporal gap between C and E. However, neither of these theses can be held in conjunction with the two following central classical theistic doctrines: (a) divine atemporality; and (b) divine causality. It follows from divine atemporality and divine causality that divine causal relations must be *a*temporal in kind. However, divine causal relations cannot be atemporal if either of the aforementioned metaphysical theses about causation are true. Hence, both of these causal theses form an inconsistent triad with divine atemporality and divine causality. This only spells trouble for classical theism, however, if there are solid grounds for accepting the claims that causation is necessarily temporal in the first place. Exploring whether such grounds exist is the task of Chapter IV, which is divided into two halves. The first half focusses on the claim that causes and their immediate effects must be temporally contiguous, the second on the claim that causation is necessarily a temporal matter. I consider the various candidate justifications one might have for endorsing these theses, and argue that none is satisfactory.

The claim that agency is a causal notion, claim (vi), is not, in itself, problematic for classical theism. However, (vi) is closely associated with a number of other theses which *are* problematic for theism. For example, the most popular theory of action maintains that mental events are the causes of actions; that actions are bodily movements; and that actions are events. Yet, these do not square with the claims that God is an incorporeal, atemporal, uncaused cause. Therefore, in Chapter V, I consider what the theist ought to say about the issue of divine agency. I begin by outlining the standard event-causal model of agency and some reasons for thinking that it cannot be extended to an account of divine action. I next sketch the main alternative to the standard model – agent-causalism – and argue that it looks promising as an account of divine agency. Following this, I present some challenges to the idea that agent-causalism provides an adequate picture of divine action. Finally, I outline Helen Steward's (2014) version of agent-causalism and argue that it provides the theist with a plausible model of divine agency – one which successfully circumvents the problems outlined in the previous sections.

Finally, consider thesis (v), the claim CECD. It seems that, for a large number of statements involving divine action, the corresponding counterfactual claims will be *counterpossible* claims, i.e. counterfactuals with impossible antecedents. This is because God is a necessary being, and a necessary first cause. However, it simply isn't clear how we are supposed to reason with counterpossibles because (i) in doing so we are attempting to entertain impossible scenarios, and (ii) the standard semantics for counterfactuals tells us that all counterpossibles are *trivially* true. In Chapter VI, I consider methods of developing a semantics which allows us to make sense of theistic counterpossibles. I first outline three extant versions of a theistic semantics for counterpossibles already on offer in the philosophical literature – those presented by Brian Leftow (1989, 1990), Richard Davis (2006), and Linda Zagzebski (1990) – and then show that there are problems for each of them. Following this, I argue that, as it stands, Zagzebski's account is not fine-grained enough to adequately assess all counterpossibles, but that, once combined with some suggestions made by Alastair Wilson (2016), which concern the grounding relation and *orders of being*, it can, in fact provide a satisfactory semantics for divine counterpossibles.

One might wonder though, given these problems, why we should want to endorse a univocal account of causation in the first place – one which treats divine and non-divine causation in exactly the same way. After all, wouldn't such problems be avoided if we were entitled to maintain that there is a special divine causal relation, one which isn't subject to the various metaphysical constraints which have been outlined? This is tempting, but it is

unsatisfactory for a couple of reasons. First, if one is to adopt this method of responding to the metaphysical problems associated with theism, then it seems one isn't really engaging in metaphysics at all. Why not simply say that one can never really know anything at all about the divine nature? I find this particularly unphilosophical. Second, if there *is* some kind of special divine causal relation, then there must be some fact of the matter about why it counts as a *causal* relation – that is, there must be some commonality between this relation and the standard, worldly, relation. Some metaphysical story will need to be told with regards to what the candidate unifying feature (or features) is. Given this, the proponent of special divine action will not be able to completely avail themselves of engaging in metaphysics.

There is a popular metaphysical account of causation that stands in contrast to the Humean contention that causation involves nothing more than regularities in nature; this is the transference account of causation. Proponents of this account maintain that causation involves transference of some kind of quantity; e.g. energy, heat, momentum, etc. Such accounts have been developed by, *inter alia*, Phil Dowe (2000), David Fair (1979), and Wesley Salmon (1984). I will not, however, explore the transference account at any point in this thesis. This might well strike the reader as a glaring omission. For such accounts seem to immediately rule out divine causation: God is an atemporal, incorporeal, immutable entity – *how, then, can God cause anything if causation necessarily requires a transfer of quantity?*

I have thought it unnecessary to address such accounts since there is little evidence to suggest that they provide anything more than an accurate description of causality *as it is in the actual world*. That is, whilst it may be the case that these accounts provide a guide to how causation operates as a matter of *physical* necessity, it is doubtful that they describe how causation must proceed as a matter of *metaphysical* necessity. Indeed, it is not obvious whether the transference account does very well in terms of accounting for, *inter alia*, economic, psychological, social, and historical causation. If the transference theorist is right that worldly entities are bound to operate via transfer of some quantity, that will no doubt be because they are spatiotemporal, physical entities. However, since we are working under the assumption that God is atemporal, why ought we to think that God is likewise bound to operate by means of transference? It's my thinking that we shouldn't.

I: Divine Causation & Necessity

1. Introduction

Quentin Smith (1996) argues that it is *logically impossible* for the universe to have an originating divine cause (ODC). He reaches this conclusion by contending, first, that causation is governed by a particular logical principle and second, that any possible interpretation of an ODC contravenes this principle. In §2 I present Smith's argument and his reasons for endorsing its premises. In §3 I contend that Smith's argument makes a category error. In light of this, I reformulate Smith's argument in terms of *metaphysical* possibility. I then point out that the theist may endorse a realist interpretation of dispositional properties which, taken together with a certain interpretation of divine omnipotence will present the re-stated argument with an irresolvable dilemma. However, I then show that even if this dilemma can be avoided, the theist may reject a premise of the re-stated argument. I conclude, in §4, that Smith's argument shows neither that it is logically impossible, nor that it is metaphysically impossible, for the universe to have an ODC.

2. The Argument from Logically Sufficient Conditions

2.1 The Argument

Smith's argument for the conclusion that it is logically impossible for the universe to have an ODC can be reconstructed (*ibid*: 176) as follows:

> [P1]   For any two particular events or states x and y, if x is a logically sufficient condition of y, then x is not a cause of y.

[P2]   For any divine causal act, x, and its intended effect, y, x is logically sufficient for y.[1]

[C]   For any divine act, x, and any intended effect, y, x cannot be a cause of, y.[2]

The argument seems to be a simple case of *modus ponens:* (i) if x is a logically sufficient condition for y then x is not a cause of y, (ii) divine acts are logically sufficient for their effects, so (iii) divine acts cannot be causes of their effects. Given this, the argument appears to be valid. But is it sound? Given that God is omnipotent, [P2] seems at least *prima facie* true: since God is all-powerful, anything God were to will to be the case could not fail to be the case. There is absolutely nothing that could frustrate God's will and prevent whatever God wills from occurring. Smith argues that '[i]f an omnipotent being x wills e and e does not occur, then x is not omnipotent – which is a contradiction.' (*Ibid*: 176) This is just to say that since classical theism takes God to be omnipotent, it is simply logically impossible for God to will something to occur and for that thing to then not occur. Given this, [P2] is at least *prima facie* plausible.

What of [P1]? Since Smith takes this principle to be intuitively obvious, he does not argue for it. However, to elucidate its meaning, and to motivate its appeal, Smith asks us to consider the example of a body, x, in motion. Smith claims that whilst it is the case that x's being in motion is a logically sufficient condition for x's occupying space, it is *not* the case that x's being in motion is a *cause* of its occupying space. Presumably Smith's thought is that the cause of x's occupying space is, rather, whatever brought x into existence. Examples such as this, Smith claims, lend support to the idea that logically sufficient conditions cannot be causes.

Now, it ought to be noted that Smith explicitly specifies that [P1] ranges over particular *events* or *states*, and does not allow for the domain of quantification to range over determinate laws of nature (1999: 176). For, if it did then this would preclude *anything* from being a cause. To see this, consider the case of a glass vase, which is dropped to the floor and subsequently smashes. Smith's thought is that if the laws of nature are determinate, and [P1] ranges over them, then the vase's being dropped, taken together with these (determinate) laws *will logically necessitate* its smashing. Thus, the vase's being dropped (in conjunction with the laws of nature) cannot be a cause of the vase's smashing. Since there is nothing distinctive about this example,

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[1] I've included the term 'intended', (it's not in Smith's formulation) since there might be effects of divine causal acts which are temporally distant from those acts, and perhaps mediated by the actions of other agents – e.g. it might be argued to be an effect of the original act of divine creation that I'm currently typing this sentence – but it's arguable that the original act of creation isn't logically sufficient for my typing this sentence.

[2] To be clear, Smith does not present this argument formally. This is my reconstruction of the argument (see *ibid*: 176).

it would follow that *nothing* could be a cause. This is, therefore, an important stipulation for the success of the argument, and a point which I will return to in §3.

Smith then notes that it follows from [P1] that:

(LT)   No causal conditional is a logical theorem,

where a causal conditional takes the form: 'if *c* were to occur, then *e* would occur'.[3] Not much is said about (LT), except that 'if an omnipotent being, whose acts of will necessarily actualize what is willed, wills that the Big Bang is actualized, then the Big Bang is actualized, which is a truth of logic.' (Smith, *ibid*: 178) So, Smith concludes that statements such as:

(G)   If God wills that the Big Bang occurs then the Big Bang occurs

do not express *causal* conditionals, since they are logical theorems. Generalising from this example, Smith contends that *no* statement expressing the universe's having an ODC can be a causal conditional.

2.2 An Anticipated Objection to [P1]

In response to Smith's argument, one could argue that *any* cause may be described in such a way that it logically implies its effect(s), and therefore there is nothing particular to *divine volitions* which precludes them from being causes. Consider, for example:

(H) The explosion caused the house to burn down.

Now, (H) could also be expressed as:

(H*) The explosion which burned down the house caused the house to burn down.

Statement (H*) presents an example of a cause which logically necessitates its effect. So, the theist may claim, Smith's argument rules out *non*-divine events, in addition to divine volitions,

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[3] Smith presents causal conditionals as 'if *c* occurs then *e* occurs' (*ibid*: 178). However, the counterfactual formulation is better represented in the literature.

as causes; *any* causal statement could be formulated in such a way that the cause presents a logically sufficient condition for its effect (as has been shown in the case of (H) and (H*)).

This kind of response would be to invoke distinctions made by Donald Davidson in his paper 'Actions, Reasons, and Causes' (1963). Prior to the paper's publication, it was the general consensus that beliefs and desires could not provide *causal explanations* for an event's occurrence, since the former provide a rationalisation of the latter. Those who held this approach reasoned that since there is a logical connection between an agent's wanting to ψ and her ψ-ing, the agent's ψ-ing could not be considered as an effect of her wanting to ψ. Thus, beliefs and desires could only provide *rational explanations* (this is the anti-causalist's position). As with Smith's argument, this anti-causalist argument is motivated by Hume's condition *iv*, that causes and effects are logically distinct.

In response to such arguments, Davidson claims that when one cites the primary reason (which consists of a belief-desire pair) for an action,[4] one does indeed give an informative and, more importantly, *causal* explanation for the action – an explanation which is not merely a *rational* one. According to Davidson, one can accept that there can be causes which are logically connected to their effects but which can still be used to provide a causal explanation, because in citing the cause (the primary reason), one is giving causal information in narrowing down the ways in which the agent could perform the action (i.e. the agent acted on the basis of *that* belief, rather than another). Following on from this, Davidson reasoned that while statements such as: 'the cause of B caused B' are uninformative, and present the cause and effect as being logically related, they are nonetheless *true*. After all, if the cause of B didn't cause B, then what did?! As Davidson puts it:

> …suppose 'A caused B' is true. Then the cause of B = A; so, substituting, we have 'The cause of B caused B', which is analytic. The truth of the causal statement depends on what events are described; its status as analytic or synthetic depends on how the events are described. (1963: 696)

The point is that the mere possibility of a causal claim's being presented in such a way that it would be analytically true does not render that causal claim false, since one could always refer to the cause and effect under different descriptions such that the claim were synthetic. So in parallel fashion, the theist might claim that whilst it may be the case that:

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[4] For example, my primary reason for opening the window is the desire to let fresh air in, coupled with my belief that opening the window will in fact let fresh air in.

(W) God's willing that the Big Bang occurs $\Rightarrow$[5] the Big Bang occurs

is both analytic and such that it presents a cause as bearing logical relations to its effect, there will be an alternative description such as:

(W1) God's willing that the universe come into existence $\Rightarrow$ the Big Bang occurs

which does not present a cause which bears any logical relations to its effect, and nor is it analytically true.

Smith does, in fact, anticipate this type of response. However, he dismisses it as fallacious. In his view, no matter what description one gives of God's willing that the Big Bang occur, it will always be the case that an ODC is logically sufficient for its effect, and that is because God is *omnipotent*. Another way to put the point is that, according to Smith, unlike cases such as (H*) above, there is no way of describing an ODC which would not make it logically entail its effect. Smith presumably aims to pre-empt Davidsonian-style responses when he states:

> The expression, 'an omnipotent being', means in part a being whose acts of will necessarily actualize what is willed. Thus, the sentence "if an omnipotent being wills that the Big Bang is actualized, then the Big Bang is actualized" expresses the same proposition as the sentence, "if an omnipotent being, whose acts of will necessarily actualize what is willed, wills that the Big Bang is actualized, then the Big Bang is actualized", which is a truth of logic. (*Ibid*: 178)

Smith is claiming that it's not simply due to the *logical form* of the description of God's willing that God's willing is logically sufficient for its effect, but rather, that it is due to *the content* of that definite description. In other words, that the causal conditional expressed in (W) is a logical theorem follows not from the definite description and the way it is constructed, but rather follows from the fact that God is *omnipotent*. Therefore, whilst Davidson's rejoinder may be successful for the causalist, it is not for the theist: God's willing is unique because God is omnipotent.

I am willing to grant Smith this point since I consider there to be stronger objections to his argument which prove successful even when his response above is granted. I will present

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[5] Where ' $\Rightarrow$ ' is intended to be read as: 'causes it to be the case that'.

these in §3, since I first wish to draw attention to the background assumptions Smith has made in presenting the argument from §1.

2.3 [P1] *&* Humean Considerations

As I outlined above, Smith does not argue for [P1], though he does provide an example to illustrate its intuitive appeal. It is important to take note of the fact that Smith is working with a broadly Humean conception of causality, so, following Hume (1748: 54-57), he considers causation to be governed by the following principles:

(i)   causes are temporally prior to their effects,

(ii)   causes are spatiotemporally contiguous with their effects,

(iii)   causes and their effects are nomologically related (governed by a law),

(iv)   causes and their effects are logically distinct.

In endorsing [P1], it's apparent that Smith is making use of Hume's condition (iv), that there can be no necessary connections between cause and effect. So, Smith gets [P1] from Hume. But why does *Hume* endorse it? Hume's motivation comes from the idea that causal relations are only knowable *a posteriori*; there is no way of knowing the effects a cause will have unless one has already observed similar cases of causation occurring. In Hume's own words:

> When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find, that the one does actually, in fact, follow the other. The impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the outward senses. The mind feels no sentiment or inward impression from this succession of objects: consequently, there is not, in any single, particular instance of cause and effect, any thing which can suggest the idea of power or necessary connexion. (1748: 41)

Hume's contention is, then, that when one considers a putative instance of causation, say, one billiard ball's hitting another, one can imagine it being the case that the cause occurs without the effect, or that the cause has an entirely different effect; it's entirely conceivable that the second ball might have stayed stationary, or have moved off in a different direction, say. Another way to put the point is to say that if causes necessitated their effects then any assertion which stated that a cause occurred and denied that its effect did ought to result in a

contradiction. Since no contradictions in fact result from such assertions, however, we know that causes do not necessitate their effects.

Another important point to note is that Hume's conception of causal necessity is a projectivist one. Causal projectivism maintains that when one takes there to be power in the objects (causal relata), or necessary connections in nature, this is in fact merely an idea in the mind which passes 'from the idea of an object to that of its usual attendant.' (Hume, 1748: 55) According to causal projectivism, it is only because one observes patterns of regularity in nature that one is led to believe that there are objects which have powers to produce certain effects. One is led to believe that similar causes will always have similar effects because of such powers. However, causal projectivism maintains that such inductive inferences, whilst perhaps not unwarranted, do not track any deep connections in nature: one cannot *know* that causes will always have the same effects which have been hitherto observed; one simply expects them, as a matter of habit. In sum, objects themselves do not have powers, and apparent necessary connections in nature are merely a function of the mind. It is with this in mind that Smith argues: '… God's willing that the Big Bang occurs is a logically sufficient condition of the Big Bang, for the propositions expressed by 'God wills that the Big Bang occur' and 'the Big Bang does not occur' are logically incompatible.' (*Ibid*: 176)

So, in the case of divine creation, one can see why it is that Smith takes it that there is no logical distinctness between the cause, *C*: *God's willing that the Big Bang occur*, and the effect, *E*: *the Big Bang's occurring*. Given that God is omnipotent, it is not possible that, given *C* occurs, either anything other than *E* occurs, or that there be no effect at all. Thus, following Hume, Smith's contention is that the necessary connection between *C* and *E* precludes *C* from being a cause of *E*, and consequently, there cannot be an ODC.

3. Responding to the Argument from Logical Conditions

Smith has also made a number of assumptions about causal relata. I will consider a number of possible responses to his argument to see whether, without these assumptions, his argument still holds weight. I will argue that at the very least, the burden of proof is on Smith to provide further argument to support his position.

3.1 Agents *&* Events

As noted above, Smith has specified that causal relata are *events,* or *states*. Even though this is a controversial thesis, it is not something he argues for. He states:

> Considerations of agent causality are not germane to our discussion; our topic is the cause of the universe's beginning to exist, not the cause of God's act of willing that the universe began to exist. We are not examining the relation between God (the agent) and his act of willing (the effect), but the relation between his act of willing (an event) and the beginning of the universe (another event). Thus, definitions of agent causality are irrelevant to our arguments; we are interested only in definitions of event causality, where the cause and the effect are both events. (*Ibid*: 170)

This is not an uncontroversial thesis, since agent-causationists (such as Timothy O'Connor (2000) and Helen Steward (2012)), would maintain that causal relata ought to include agents; others still (e.g. E.J. Lowe, (2008)) would maintain that *only* objects can be causes. Unless Smith can provide a principled reason as to why the relation in question is that between God's act of willing (construed as event) and the beginning of the universe, and not God (construed as *agent*), then Smith would appear to be doing little more than question-begging. Smith effectively expresses an ODC as:

(D)   The divine willing that the Big Bang occurs ⇨ the Big Bang occurs.

But why couldn't the theist put forward an alternative interpretation of an ODC? For example:

(D1)   God ⇨ the Big Bang occurs.[6]

This interpretation fits with the view expressed by agent-causal libertarianism.[7] Alfred Mele explains this theory as follows:

> Agent-causal libertarianism features agent causation—causation of an effect by an agent or person, as opposed to causation of an effect by states or events of any kind, including a person's motivational and representational states… Think of causation as a relation between cause and effect. In ordinary event causation—for example, a lightning's strike causing a tree to crack—both cause and effect are events. These events are connected by the relation of causation. In agent causation, an agent is connected by the relation of causation to an effect. (2009: 63)

So, were they to adopt an agent-causal view, the theist could maintain that *God* – and not the event of God's willing – is the cause of the Big Bang. Theists could then contend that God's willing constitutes the causal relation that connects God to the Big Bang. This idea is further elucidated by John Bishop:

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[6] This should be read as 'God causes it to be the case that the Big Bang occurs'.

[7] Or agent-causalism for short.

The agent-causalist does indeed hold that basic intentional action is constituted by a relation whose subject is, irreducibly, the agent whose action it is. But care is needed in specifying the object of this relation. Since what constitutes a basic intentional action, on the agent-causalist view, is the obtaining of an agent-causal relation, the basic intentional action cannot itself be the object of this relation. The action is the existent relation, and may not be collapsed into one of its terms. The object of the agent-causal relation, then, is not the action itself but rather certain events or sequences of events which, in virtue of their standing in this relation, count as intrinsic to the agent's intentional action... Strictly, the basic intentional action is the relation between the agent and certain bodily movements of his. (1983: 71)

In analysing an ODC as (D1), theists will obviously not wish to maintain that in the divine case, the results of divine actions are bodily movements; however, the main point to take from the above is that the agent-causationist would maintain that (D1), rather than (D) is the correct analysis of an ODC. However, if the causal relation relates an object with an event, then Smith's argument simply cannot succeed in establishing its conclusion, at least, not as it stands. This is due to Smith's stipulation that the argument be read in terms of events or states. As a reminder, [P1] states that: for any two particular events or states x and y, if x is a logically sufficient condition of y, then x is not a cause of y. As was noted above, Smith insists that in examining divine causality we are examining the relation between *God's act of willing* (an *event*) and the beginning of the universe (another event).' Yet, Smith has provided no reason to support his claim that in analysing an ODC, we are concerned with the relation between action and event, rather than agent and event. Since there is no supporting argument for this assumption, the theist is entitled to adopt the latter construal, and side with the agent-causationist.

Now, once (D1) is adopted, the relation we are concerned with ties an *object* to an event. However, logical relations hold between *propositions*, *not* objects. To quote Lowe 'logical relations, strictly speaking, can obtain only between propositions, not between concrete objects, nor between abstract objects that are not propositional in nature.' (2010: §1). So given that Smith has construed causal relata as events, he is wrong to invoke a principle which invokes talk of *logical entailments* between them, since *only propositions* are involved in logical relations. In that case, Smith's argument is unsound since [P1] is false.

If, however, theists are for whatever reason reluctant to endorse agent-causalism, they nonetheless ought not be troubled by Smith's argument, since, the following objection undermines Smith's argument, no matter what we take causal relata to be.

Suppose, then, we grant for the sake of argument that causal relata are events. Now, the terms by which we refer to events are *perfect nominalisations*; these denote particulars - not

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abstract entities.[8] Yet, as with agents, events *qua* particulars are not in the right ontological category to be tied into logical relations. Faced with this observation, Smith will need to re-formulate his argument such that it refers to the things which do stand in logical relations, namely, propositions. In that case, he may re-state the argument as follows:

[P1'] For any two propositions *p* and *q*, if *p* is a logically sufficient condition of *q*, then *p* is not a cause of *q*.

[P2'] For any divine causal act, represented by *p*, and its intended effect, represented by *q*, *p* represents a logically sufficient condition for *q*.

[C'] For any divine act, *p*, and any effect, *q*, *p* cannot be a cause of, *q*.

Now, the problem with the argument from [P1'] and [P2'] to [C'] is that *events* are not logically sufficient conditions – indeed, they are not conditions at all! *Qua* particulars, they cannot stand in logical relations – only propositions may do that. The re-stated argument does indeed represent propositions, but this will not help matters since presumably an ODC is not a proposition – no proposition caused the Big Bang! Given this, we can present Smith with a dilemma: he must either, (i) re-state the argument in terms of [P1'], [P2'], and [C'], or (ii) eschew talk of logical sufficiency. The first option, we have seen, is unacceptable, since no proposition is an ODC; so that leaves the second option: Smith must eschew any appeals to logical necessity. Given this, I will attempt to rescue the argument by invoking instead *metaphysical* modality.

3.2 Metaphysical Necessity

As we've seen, Smith is working with a broadly Humean conception of causation, and therefore follows Hume in maintaining that the only real necessities are *logical* necessities. However, one might well think – and indeed, many *do* think – that there are other kinds of necessities, for instance, physical, nomological, and metaphysical necessities. The following are putative examples of non-logical necessary truths:

(C) Nothing is the cause of its own existence.

(S) Any object that takes up space has a shape.

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[8] See, for example, Zeno Vendler (1967) and Jonathan Bennett (1988).

(M)   Anything that has mass has volume.

(C), (S) and (M) are not logical truths since their denial would not present a contradiction. Nor are they analytically true under any other definition of analyticity. To quote John Divers, the truth of these kinds of statements, rather, get 'fixed by the natures and identity conditions of things' (2002: 4). Each of the above is true in virtue of the *metaphysical* facts, not the rules of logic. Examples such as these demonstrate metaphysical necessities; necessary truths which arise due to the identities and natures of objects.

Smith has specified that the relata of the causal relation are events. As we have seen, these are concrete entities, not propositions or abstract entities of any other kind. Causal relations hold in virtue of how the (non-linguistic) *world* is, not in virtue of logical rules or the meanings of words. This means, therefore, that the causal relations which hold between objects and events cannot be logical, they must be metaphysical. Causation is, then, a *metaphysical*, not a logical notion. If the theist accepts this anti-Humean thesis, they can simply reject the argument from [P1'] and [P2'] to [C'] as resting on a category mistake.

Now, Smith claims that some x's being in motion cannot be the cause of x's occupying space. Smith's claim is correct. However, his explanation of this fact is wrong. Smith says being in motion is a *logically sufficient* condition for occupying space, and since logically sufficient conditions cannot be causes, being in motion can't be a cause of occupying space. However, since there *are no* logical relations which hold between an object's being in motion and an object's occupying space – we have seen that logical relations only hold between *propositions* – this cannot be the reason. So what is the reason? We should begin by noting that what grounds an object's being in motion is *identical* to that which grounds the object's occupying space. So, plausibly, a metaphysical relation – that of *having a common ground* – holds between an object's being in motion and its being in space. A body's being in motion is, then, *metaphysically sufficient* for its occupying space. Given this, we may say that the reason a thing's being in motion cannot cause its occupying space is that being in motion is metaphysically sufficient for occupying space, and a cause cannot be metaphysically sufficient for its effect.

Having pointed out this error, it now becomes clear that Smith's argument ought to be re-stated in terms of *facts* – the entities which stand in these kinds of metaphysical relations. Following Mellor, facts are to be construed here as 'the entities in our world … whose existence or non-existence makes true statements true' (1995: 162). In re-stating the argument, we can also substitute logically sufficient conditions for metaphysically sufficient conditions.

With this in place, may re-state Smith's argument (in such a way as to avoid the problems of the previous formulation) as follows:

[P1″] For any two particular facts *x* and *y*, if *x* is a metaphysically sufficient condition of *y*, then *x* is not a cause of *y*.

[P2″] Any fact of the form 'divine act, *x*, has occurred' is a metaphysically sufficient condition for a fact of the form 'intended effect, *y*, has occurred'.

[C″] Any fact of the form 'divine act, *x*, has occurred' cannot be a cause of any fact of the form 'divine act, *x*, has occurred'.

Smith may then concede that his argument, as originally presented, is fallacious but claim that the revised argument is sufficient to demonstrate that God cannot be causally efficacious. Since God is omnipotent, this fact ensures that God's willing is metaphysically sufficient for the Big Bang's occurrence. In short, then, Smith may concede that whilst an ODC is logically possible, it is nevertheless metaphysically *im*possible.

In §3.4 I will argue that a particular anti-Humean metaphysical theory – namely, *dispositional essentialism* – provides theists with the resources to respond to this revised argument. Before going on to present this response, however, it is necessary first to say something about the nature of omnipotence, since this is the feature which distinguishes divine from non-divine causation, and the dispositional essentialist theory itself.

3.3 Dispositions

Traditionally, omnipotence has been construed by theists as a *property*, though the nature of this property is disputed. My contention is that omnipotence is best characterised as a *dispositional* property. Dispositional properties may be understood as powers or potentials which specify how objects will behave in certain situations. Dispositions are often characterised in terms of counterfactual conditionals, in the sense that a thing, *x*, has a disposition, *D*, if it is such that, were *x* to be placed in situation *S*, which contains certain stimulus conditions, a characteristic manifestation, *M*, would ensue. So, for example, a vase has the disposition, fragility, since it is such that, were it dropped onto a hard surface from a height, it would smash. Those who take dispositional properties seriously may be inclined to adopt a theory of causation which explains causality (partly) in terms of these properties. Dispositional essentialism maintains that the essence of a property *P* is wholly constituted by

the nomic or causal roles *P* plays (Choi and Fara (2012: §3)). The causal role of *P* is given in terms of its potential causes and effects. The dispositionalist typically maintains that laws of nature are universal descriptions of dispositional essences of properties.[9] This is just to say that the laws of nature are *grounded in* the dispositional properties.[10]

I suggest that omnipotence may be seen to entail the following dispositional property:

DO:[11]   *x* is omnipotent = whatever *x* wills is necessarily actualised.

It seems that a dispositional understanding of other divine attributes is appropriate too. For instance, omniscience is often characterised as the property of having complete or maximal knowledge. However, one might think that future facts, for example, present a problem for this notion. For, since future facts plausibly do not yet obtain, it is impossible for God to have knowledge of such facts. However, if omniscience were interpreted as meaning that for all facts, whichever facts obtain, then God knows those facts, no such problem arises. All that a dispositional understanding of omniscience would require is for any states of affairs which *do* obtain, God has knowledge of them. Omniscience would not then require God to know any future facts.[12]

If these dispositional characterisations of divine attributes are adopted, then it would seem natural for the theist to adopt an account of causation which invokes dispositions. On such an account, objects may be said to instantiate dispositional properties which have causal roles, and these dispositional properties have universal descriptions which ground the laws of nature. So, for example, a dispositionalist account of causation may explain the law of gravity as being grounded in the dispositional properties of objects which have mass: a particle, *x*, has a disposition to attract any other particle, *y*, using a force that is directly proportional to the product of their masses and inversely proportional to the square of the distance between them. Once we generalise these cases to get universal descriptions of these properties, then we are also describing the laws of nature.

In the next section, I will argue that the adoption of such an account will allow the theist to present Smith's revised argument with a dilemma. However, it is worth noting here

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[9] Hereafter, I take dispositionalism to refer to the view that takes a realist conception of dispositional properties, as well as a theory of causation which explains causality in terms of dispositional properties.

[10] I discuss this account of laws at length in Chapter II.

[11] DO stands for 'dispositional account of omnipotence'.

[12] See David Hunt (1995) for a defence of DO.

that advocating dispositional realism would not be an *ad hoc* move. In Chapter II I will argue that theists have independent motivation for endorsing dispositional essentialism, since it provides the most theologically acceptable theory of the laws of nature.

3.4 A Dilemma

Were the theist to accept realism about dispositional properties, they could present Smith with the following question: does [P1″] (the premise that for any two particular facts x and y, if x is a metaphysically sufficient condition of y, then x is not a cause of y) range over the facts concerning dispositional properties – call these the 'dispositional facts' – (and laws of nature), or not?

Suppose that [P1″] *does* range over the dispositional facts. In that case, this will preclude *all non-divine events* from being causes. To see why, consider again the dropping of a vase's onto a hard surface from a height, and the vase's subsequent smashing. We can say of the vase that it had the dispositional property *fragility*; the disposition to smash when dropped. If Smith *were* to accept that the fact that the vase has a disposition to smash is ranged over by [P1″], then we would describe the cause and the effect in the following way:

(V)   The vase's being dropped + the fact that the vase has a disposition to smash when dropped ⇨ the vase smashes.

However, the cause in this causal conditional is a (*ceteris paribus*) metaphysically sufficient condition for its effect.[13] Nothing else need be in place in order for the vase to smash, given the laws of gravity, motion etc. and the vase's disposition to smash.[14] But in this case, given that [P1″] specifies that anything which is a metaphysically sufficient condition for its effect cannot be a cause, (V) is not, despite appearances, a *causal* conditional; the dropping of the vase, together with the vase's fragility, cannot be a cause. Given that there is nothing special

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[13] William F. Vallicella (1999) makes a similar suggestion as a response to Smith's argument. He claims that the thesis that there are irreducible dispositions in nature and that when these are manifested, they are logically sufficient for their effects. However, my objection differs from his, since (i) I claim that causation is a metaphysical notion, not a logical one, and so I disagree with him that these present logically sufficient causes; and (ii) Vallicella's argument is presented as an argument for occasionalism – a thesis I do not endorse, and which is not the concern of this chapter.

[14] Strictly speaking, this only holds *ceteris paribus*, since dispositions can be 'masked'. For example, were the vase to be surrounded by layers of bubble-wrap, then its disposition to smash would be masked or cancelled out. So, (*ceteris paribus*) the disposition + stimulus conditions are metaphysically sufficient for their effect. Alternatively, one might think that the stimulus condition *includes* the absence of maskers.

about this case of (non-divine) causation, it follows that *any* cause will be ruled out. In this case, a *modus tollens* argument can be run against Smith. If [P1″] is true, *and its variables can range over the facts concerning dispositional properties*, then *nothing* can be a cause. However, since some things *are* causes, then [P1″] must be false. Or, more precisely, [P1″] must be false unless its variables don't range over dispositional facts. Presumably, the conclusion that nothing can be a cause is not one that many, least of all Smith, would happily accept, so this horn of the dilemma ought to be avoided.

Suppose, then, that [P1″] does *not* range over the facts concerning dispositional properties. In that case, the correct reading of the case of the vase's being dropped will be:

(V*)   The dropping of the vase ⇨ the vase smashes.

(V*) reflects the fact that the vase's disposition to smash when dropped is *causally relevant*, but it does so only in the sense that some background conditions need to obtain in order for the effect to occur. (Likewise, in the case of my kicking a football, for example, it is necessary that I occupy space and time. However, my occupancy of space and time is not thereby a *cause* of my kicking the ball.) If (V*) presents the correct understanding of the case of the vase's smashing, then the following is the correct understanding of an ODC:

(G1)   God's willing that the Big Bang occurs ⇨ the Big Bang occurs.

where omnipotence is causally relevant, in that it provides background conditions within which the cause and effect occur. Why is this? Well, we have stipulated that omnipotence is a dispositional property, and further, that the facts concerning dispositions are not ranged over by [P1″]. So, what it is for God to be omnipotent is for him to possess the dispositional property DO, which itself entails:

(WA)   Whatever God wills is actualised.

So the following is true:

(DW)   God wills that the Big Bang occurs.

(WA)   Whatever God wills is actualised.

Therefore:

(G1)   God's willing that the Big Bang occurs ⇨ the Big Bang occurs.

So – running with the second horn of the dilemma – God's willing that the Big Bang occur is only metaphysically sufficient for the Big Bang occurring *when considered in conjunction with his property of being omnipotent*. God's *willing* that the Big Bang occur, considered on its own, is not metaphysically sufficient for the Big Bang's occurring. Thus, it now follows that Smith must allow that God's willing *can* be a cause. Since God's willing is *not* a metaphysically sufficient condition for its effect, Smith's grounds for ruling out an ODC are removed. On this second horn of the dilemma, the theist can state that what makes it the case that God causes the Big Bang is that God wills the Big Bang. However, what makes it *necessarily* the case that once God has willed that the Big Bang occurs, the Big Bang occurs, is that God's willing, *in conjunction with* his being omnipotent, entails that what God wills in fact occurs. On the second horn of the dilemma, on which it is denied that the premises of the argument range over dispositional facts, [P2″] (that any fact of the form 'divine act, *x*, has occurred' is a metaphysically sufficient condition for a fact of the form 'intended effect, *y*, has occurred') is false.[15]

The dilemma, in sum, is as follows. Either [P1″] ranges over dispositional facts, or it doesn't. If it does, then, if one accepts a realist view of dispositions, the argument will over-generate; it will preclude any causation involves the manifestation of a disposition. If it doesn't, then [P2″] is false, since omnipotence is ruled out as a cause.

3.5 Rejecting [P1″]

Perhaps the above has been too charitable to Smith. Why ought the theist (or anyone for that matter) accept the premise [P1″]? Granted, it has been shown that there are indeed *some* cases where something's being metaphysically sufficient for its effect precludes it from being a cause,

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[15] McClelland and Deltete (2000: 11-12) make a similar suggestion. They say that (i) [P1] will be false if it turns out that dispositional realism is correct and that the relationship between the dispositional properties of objects and their manifestations is a logical one; and (ii) that if causal dispositionalism involves natural rather than logical necessity then [P1″] is simply irrelevant to such a theory of causation. They do not say anything more than this. I hope to have presented Smith with a far more robust argument. I've also pointed out that a dispositional realism may be useful for understanding other divine attributes; something not noted by McClelland and Deltete.

but why think that *all* cases are like this? Why is Smith entitled to make a generalised rule about all putative metaphysically sufficient causes? Consider the following *false* causal claim:

> (B) The banana's being coloured caused it to be yellow.

(B) is false is because there is a partial-identity relation between the purported cause and the effect – that which grounds the banana's colouredness is identical to that which grounds the banana's yellowness. However one might claim that there is a further reason for (B)'s falsity: the fact that yellow is a *determinate* which falls under the *determinable* colouredness. (Let's follow Johnson in saying that '[t]he relation of a determinate to its determinable resembles that of an individual to a class…' (1922: 35)) So, since being yellow is just *one* way of being coloured, it cannot also be the case that being coloured *causes* a banana to be yellow. To generalise, we can say:

> (DD)[16] For all properties, x and y, if x is a determinate which falls under a determinable y, then y cannot be a cause of x.

Given this, there are two possible reasons for rejecting the claim that (B) expresses a true causal claim: (i) because it contravenes [P1″], and (ii) because it contravenes (DD). So far, I have accepted that [P1″] is true precisely because it would provide an explanation for why (B) fails as a causal claim. Yet, if one accepts (DD), then one can still maintain that (B) fails to express a causal claim and deny the truth of [P1′]. In other words, it's possible to explain the falsity of (B) without appealing to the thesis that causes cannot be metaphysically sufficient conditions for their effects. Now, there are a number of philosophers who would claim that [P1″] is false; there are those who maintain that there are necessary connections in nature. Such people would claim that there are cases where causes are metaphysically sufficient for their effects, but where the causes and effects are not related as determinate to determinable. Stephen Mumford (2004), for example, has advanced an ontology under which some properties have 'necessary connections with other properties. [Such that when] they are instantiated in natural objects in the world, there is necessity in nature.' (*Ibid*: 14). One reason for endorsing [P1″] comes from Hume's argument that since it's not possible to know *a priori*

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[16] (DD) stands for 'determinates and determinables'.

what relations hold between causes and effects, such connections between causes and effects cannot be necessary. However, since Kripke, many have accepted that there can be *a posteriori* knowledge of necessary truths (e.g., we can know that 'water = H_2O'). Further, one would also think that there are necessary connections in nature if one thought that objects can have certain properties *essentially*. Take, for example, the solubility of water and the dissolvability of salt. These properties are *de re* connected such that when salt is placed in water, this is metaphysically sufficient for the salt's dissolving (Mumford, *ibid*: 168). If this is an accurate characterisation of the nature of these objects and properties, then it follows that [P1″] is false. My point isn't that theists *should* identify *de re* necessity with essential properties; it is that, they have the option of adopting such a position as dispositional essentialism, and that, were it to be adopted, [P1″] could be denied.

4. Conclusion

I began by outlining Smith's argument for the impossibility of an ODC. I then presented a number of objections against this argument: (i) a Davidsonian-style objection, (ii) a category error objection, and (iii) a dilemma. The first was dismissed, and the second successfully dispensed with the argument as stated by Smith, but in doing so made way for a revised version of the argument. However, the third objection, in the form of a dilemma, proved to be decisive. I suggested that (a) the theist may interpret omnipotence as a dispositional property and that (b) dispositional properties be taken to ground the laws of nature. Given that the theist may endorse these two theses, it turns out that, even when reformulated to avoid the category error, Smith's argument is subject to a tough dilemma: either the argument precludes *anything* from being a cause, or it has a false premise. Therefore, Smith's argument shows neither that it is logically impossible, nor that it is metaphysically impossible, for the universe to have a divine cause. In the next chapter, I will show that an appeal to dispositional realism is not an *ad hoc* one, since, I argue, the theist ought to endorse realism with respect to dispositional properties in order to provide a theistically acceptable account of the laws of nature.

II. GOD & LAWS OF NATURE

1. Introduction[17]

There are many patterns of regularity in the way that entities behave in the world. Examples of such natural regularities include the fact that heat always transfers from a hotter to a cooler body, and that the pressure of a gas tends to decrease as the volume of a gas increases.[18] Commonly, it is thought that such patterns of regularity couldn't have arisen as a matter of pure chance. Therefore, the thought goes, the existence of such regularities requires a deeper explanation.[19] For example, Galen Strawson states:

> The objection … needn't be merely negative. It needn't be just that (1) it is absurd, given a regular world, to insist that there is definitely nothing about the nature of the world given which it is regular rather than chaotic. It may also be positive: it may also be that (2) it is reasonable (in some perhaps irreducibly vague but profoundly unshakeable sense), given a regular world, to suppose, positively, that there definitely is something about the nature of the world given which it is regular, something which is therefore not itself just the fact of its regularity. (1989: 24)

Most commonly, natural regularities (*regularities* hereafter) are explained by appeal to certain laws of nature (hereafter, simply *laws*).[20] As David Armstrong explains:

> Suppose that a number of Fs have all been observed, and that each is a G. No F that is not a G has been observed. We might ask for an explanation of this fact. One possible explanation is that it is a law that Fs are Gs. If such a law really holds, then the explanation will be quite a good one.
>
> Suppose, however, that laws are mere regularities. We are then trying to explain the fact that all observed Fs are Gs by appealing to the hypothesis that all Fs are Gs. Could this hypothesis serve as an explanation? It does not seem that it could. (1983: 40)

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[17] A large portion of this paper appears in D. Adams (forthcoming).

[18] The former is an informal statement of an instance of the second law of thermodynamics, while the latter is an informal statement of Boyle's law.

[19] As I'll go on to explain in greater detail in §2, those who have a conception of laws which identifies laws with regularities themselves (the regularity theory) typically deny this claim; regularity theorists typically take the existence of regularities to be brute.

[20] I take natural regularities to be those which occur naturally, in the sense of not being man-made.

These laws are said to govern the behaviour of objects; thereby ensuring that nature unfolds in a regular manner.[21, 22] So, in the first example given above, there will be a law which prescribes that heat always transfers from a hotter to a cooler body.

Classical theism, however, maintains an additional principle regarding natural explanation: ST.[23] According to ST God is the creator of Heaven and Earth, and that all that exists is under God's sovereign guidance and potential control. In a similar vein, Brian Leftow explains the idea that all causal explanations eventually trace back to (and ultimately stop at) God; 'there is no digging deeper than God; God and nothing else constitutes the basic causal context for the rest of reality'. (2012: 6) It follows from ST that God must somehow be responsible for any regularities and laws of nature existing in our universe. Therefore, theists need an account of the relation between (i) regularities, (ii) laws of nature, and (iii) God. This chapter critically examines one such account, given by John Foster in his book *The Divine Lawmaker*. It shows that while Foster's account faces insurmountable challenges, these challenges can helpfully point us towards an account that proves to be more successful.[24]

Foster holds a metaphysically robust, anti-singularist account of laws which views laws as governing from the top down.[25] It's these aspects of his account which are problematic, for, as we will see in §4, they stand in tension with ST and AT.[26] It follows, therefore, that the best account of God's relation to regularities and laws of nature will take a singularist and bottom-up view of natural laws. §5 presents a theistic version of *dispositional essentialism* which fits this model and §6 discusses some potential lines of objection to the proposed account and shows

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[21] Along with the claim that regularities require explanation, the idea that laws of nature have a *governing* role is a contentious one. As will be explained in §2 the conception of laws which identifies laws with regularities denies that laws have any governing role. Helen Beebee (2000) argues explicitly that the thesis that laws govern is not a conceptual truth.

[22] There is an issue here concerning exactly how well laws provide an explanation for the existence of regularities. That is, one might wonder why the laws are as *they* are; why do laws exist? Justification is needed for the claim that laws are a better stopping point for explanation than regularities themselves. This is an interesting and important issue. However, it's outside the scope of this chapter to consider. I'll suppose for the sake of discussion that there's a satisfactory answer to this question.

[23] The sovereignty thesis.

[24] As far as I'm aware, there are only two theistic accounts of natural laws on offer in the contemporary analytical philosophical literature. One of these is Foster's; the other is advanced by Evan Fales (2010). It should be noted that Fales' view and the one I present in this chapter are similar, since they each endorse a dispositional essentialist view of laws. However, there are also some important differences. For example, Fales takes his position to entail Platonism; mine (which I term theistic dispositional essentialism) does not. As will be argued in §5, the theist, due to their commitment to divine aseity and sovereignty, is required to accept an Aristotelian – rather than Platonist – account of properties. Because of this, Fales' account is ruled out by my arguments. In any case, the considerations and arguments I provide for a theistic dispositional essentialism differ from those presented by Fales. Given this, Foster's account provides a good starting point from which to build a new proposal.

[25] §2.1 explains in detail what is meant by 'top-down' and 'bottom-up' accounts of laws; §2.3 explains what is meant by singularist vs. anti-singularist accounts.

[26] The aseity thesis.

that each of these can be met. Before concluding in §9, §7 and §8 will first show why the alternative *universals* and *regularities* accounts of laws are theistically unacceptable and therefore no competitors to theistic dispositional essentialism.

2. Laws of Nature

Amongst the accounts which invoke laws in order to explain regularities, there is much disagreement over what the correct account of laws is. Such accounts differ over three main issues: (i) with respect to the ontological status of laws, (ii) with respect to the modal status of laws, and (iii) with regards to whether they admit singular causation. The following section outlines these areas of dispute. The remainder of this chapter considers which account of laws best explains regularities in accordance with the commitments of classical theism.

2.1 Top-Down vs. Bottom-Up Laws

Any account of laws will have to take a stance on the ontological status of laws. In particular, it will have to take a stance on whether the truths relating to laws are supervenient on regularities (and therefore on the properties of objects and events they govern), or whether the truths expressed by statements of regularities are supervenient on those expressed by statements of laws. Any view which takes the former approach, I describe as positing laws which arise – and thereby govern – from the 'bottom-up'; the latter I take to govern from the 'top-down'.

Top-down views clearly have a more metaphysically robust view of natural laws, in that they take them to be in some sense *prior* to the regularities they govern. Top-down laws *strongly* govern in the sense that they 'are somehow imposed on things whose identities are independent of the laws'. (Ellis, 2000: 329) In other words: to hold a top-down view of laws is to view nature as essentially passive, and therefore as requiring governance from natural laws in order that objects and events enter into causal relations. According to top-down accounts, laws cannot be reduced to any non-nomic ontological category.[27] As such, top-down views may be contrasted with accounts such as the *regularity view*, which take laws to be mere generalisations of natural regularities.

There is a variety of positions proponents of top-down views may take with regard to which ontological category they identify laws with. One option is to take laws as ontologically

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[27] I take non-nomic entities to be those which do not afford any causal 'oomph', such as categorical properties, regularities, and abstracta. The class of nomic entities will include dispositions, laws, and capacities etc.

primitive, a view taken by Tim Maudlin (2007), who states that 'laws of nature stand in no need of 'philosophical analysis'; they ought to be posited as ontological bedrock'. (*ibid*: 1) Another option is to take laws to be abstract entities akin to numbers, sets, and propositions. Foster (2004) defends a theistic version of such an account. Under his view, laws are 'abstract entities whose existence consists in the relevant facts of nomic necessity'. (*ibid*: 156) A third type of top-down view identifies laws with states of affairs which involve a second-order universal, N, relating two first-order universals. This view is perhaps most famously advocated by David Armstrong (1983).[28] For Armstrong, these second-order universals are *relations* of *nomic necessity* which hold between the first-order properties of objects. Under Armstrong's *universals account*, laws are necessitation relations which hold between property *types*, as opposed to *tokens*. Therefore, objects will be governed by the relations the universals they instantiate enter into.

Bottom-up views, by contrast, are less metaphysically robust since they take laws to be ontologically dependent upon the regularities they govern. One example of a bottom-up view is dispositional essentialism, the view that (at least some of) the fundamental properties of objects are essentially dispositional. Dispositional properties are usually characterised as those which confer causal powers or capacities on the objects which instantiate them. Typically, they support counterfactual statements involving their bearers. For example, un-boiled eggs have the disposition 'fragility' which confers the tendency to break under certain stimulus conditions, such as being dropped. Therefore, the disposition supports the truth of the counterfactual that 'if it were the case that the egg was dropped, then it would be the case that the egg would break'. Dispositional properties are often contrasted with categorical ones. Categorical properties typically are not taken to support counterfactuals since they do not 'look beyond' their bearers. Examples of such properties include the microstructure and shape of an object.[29] According to this view (held for example, by Brian Ellis (2000, 2001) and Alexander Bird (2007)), laws are identified with universal descriptions of the essentially dispositional properties of objects. Ellis explains his own version of this view as follows:

> It is a bottom-up sort of theory, rather than top-down, and it depends on taking a realist, non-reductionist, view of the causal powers, capacities and propensities of the most fundamental things in nature, and assuming them to be ultimately responsible for determining how these things are intrinsically disposed to behave. So, according to scientific essentialism, the causal laws are ontologically dependent on the dispositional properties of things. They are not laws which are

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[28] For Armstrong, universals are immanent, repeatable entities which can only exist if they are instantiated by some object(s).

[29] The dispositional essentialist account of laws will be presented in greater detail in §5.

imposed on things which are essentially passive, and are thus bound to do as the laws command. (2000: 330)

Dispositional essentialism, then, views nature as essentially powerful – laws do not impose themselves on the world to produce causal relations, for it's the *dispositions of objects* which confer causal powers. As George Molnar explains, '…what powers there are does not depend on what laws there are, but vice versa, what laws obtain in a world is a function of what powers are to be found in that world'. (1990: 41) It is for this reason that dispositional essentialism is a bottom-up view.

Another type of bottom-up view is the regularity theory. According this view, laws are nothing over and above natural regularities. In its most basic form, the regularity theory maintains that laws are simply universal generalisations of regularities. According to the more sophisticated version, *the systems approach* developed by David Lewis (1973), laws are those regularities which belong to all the true deductive systems with a best combination of simplicity and strength. As such, the regularity theory views regularities as ontologically prior to laws: if there were no regularities in nature, there would be no laws. So, laws do not *give rise to* regularities; rather, the laws supervene on the regularities.

2.2 The Modal Status of Laws

There is also dispute over the modal properties of laws.[30] For instance, while our best physical theories take it as a law that nothing with a mass can be accelerated to the speed of light, it's much less clear what kind of modal status this law should have. There are three options available here. Laws might be taken to be (i) logically necessary; (ii) metaphysically necessary; or (iii) metaphysically contingent.

One would be hard pressed to find a philosopher who has defended the first view. Presumably the view is out of favour because it simply just does not seem inconceivable that the laws of nature could have been different in the way that it seems inconceivable that the sum of 2 + 2 could not have equalled 4.

I take metaphysical necessities to be broadly logical; i.e., I take them to be strictly necessary truths whose denials are not contra-logical. Metaphysical necessities are grounded by the natures of objects and are often expressible in terms of identity statements such as

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[30] There is an issue concerning whether laws ought to be considered as entities, or statements which express facts. If laws are entities then they'll have modal properties; if statements then they'll have modal status. For ease I will speak in terms of laws having modal properties.

'necessarily, water is H_2O'. Typically, dispositional essentialists take the view that laws hold of metaphysical necessity for the following reason: since the laws are supervenient upon the dispositions objects possess essentially, the same laws must hold in any world where the same dispositional properties are instantiated. (I am assuming here that if an object, x, is essentially F, then it will also be the case that x is necessarily F.[31]) The laws supervene on the essential properties of objects in the sense that no two worlds can differ in terms of their laws without there being a difference with respect to which properties are instantiated in them. I also take it that this supervenience relation holds of necessity. Hence, it is true at every world that the laws of nature supervene on the essential dispositional properties of objects. As Bird explains:

> If properties have a dispositional essence then certain relations will hold of necessity between the relevant universals; these relations we may identify with the laws of nature. The necessity here is metaphysical… Since the relevant relations hold necessarily, this view is committed to necessitarianism about laws—laws are metaphysically necessary… (2007: 43).

However, it is possible for a dispositional essentialist to take either a weak or a strong position with respect to the metaphysical necessity of laws. According to the weak position, 'the necessity of laws is a restricted metaphysical necessity—a law holds in all possible worlds *where the relevant universal exists.*'[32] (*Ibid.*) According to the stronger position, the laws and the properties exist in all worlds without exception. In what follows, I assume only the weaker version: the laws *conditionalised on the existence of the properties mentioned in them* are metaphysically necessary.

According to Armstrong's universals approach, laws are contingent, since the second-order universals involved in relations of nomic necessitation are merely *contingently* associated with the first-order universals of the objects which instantiate them. This means that whichever laws hold in the actual world will be restricted to the actual world. However, under the universals approach, the laws do *confer* necessary connections between the objects they govern. Those who hold a regularity view also maintain that laws hold contingently. For, given that the laws supervene on the regularities, if the regularities had been different, so too would the laws. And, given that the laws don't *govern* the regularities, there is no reason to think that there couldn't have been different regularities.

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[31] I consider this assumption to be relatively uncontroversial. See, e.g. Kripke (1980) and Fine (1994).
[32] Emphasis added.

2.3 Singularism

A third area of disagreement concerns whether to admit singular causation. Call those theories which do 'singularist', and those which don't 'anti-singularist'. A theory admits singular causation if it allows that two or more causal relata – say, events c and e – have, *in themselves*, some property (or properties) in virtue of which we can say that one caused the other without knowing whether, and without its being the case that, C-type events are always followed by E-type events. One defender of singularism is C. J. Ducasse, who elucidates the concept as follows:

> … recurrence becomes related at all to causation only when a law is considered which happens to be a generalisation of facts themselves individually causal to begin with. A general proposition concerning such facts is, indeed, a causal law, but it is not causal because it is general. It is general, i.e. a law, only because it is about a class of resembling facts; and *it is causal only because each of them already happens to be a causal fact individually and in its own right* (instead of, as Hume would have it, by right of its co-membership with others in a class of pairs of successive events). *The causal relation is essentially a relation between concrete individual events* … (1926: 61).[33]

Dispositional essentialism is one view which allows for singular causation. This is because, according to this account, the laws are ontologically dependent upon the causal relata – taken as individuals – themselves. Therefore, in order to know whether particular objects c and e are causally related, all we need do is look to their respective dispositional properties; we need not look beyond these tokens to their respective types C and E. Ellis (2000: 329), for example, states that under dispositional essentialism, the causal laws are 'concerned with necessary connections between events or circumstances of precisely the sort required for a decent account of singular causation.' However, it does not follow from this singularist view that, for example, the law that H_2O freezes at $0°C$ does not apply to non-actual samples of water, or worlds in which there is no water. As Bird explains, where L(P) is a law concerning some property, P, then:

> Just as worlds where Eric Blair was never born are not counterexamples to the claim □(Eric Blair = George Orwell), worlds where P does not exist are not counterexamples to the claim □L(P)… What □L(P) rules out are worlds where P exists but is not governed by the law L(P)… (2007: 49).

The Humean regularity theory, by contrast, is anti-singularist because causal relations are taken to be logically supervenient on the laws. What it is for a particular causal relation to hold e.g. for event c to cause event e, according to the regularity theorist, is just for it to be the

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[33] Emphasis added.

case that (i) *c* is temporally prior to *e*; that (ii) *c* and *e* are spatiotemporally contiguous; and that (iii) each event of kind *C* is followed by an event of kind *E*.[34] Further, the regularity that all *F*s are followed by *G*s constitutes a law, according to this view. It follows therefore that the regularity theorist must be anti-singularist since condition (iii) on causal relations implies that each causal relation must be lawful.

The universals account takes laws to be relations between second-order universals. So, for example, if it's a law that: $\forall_x [F_x \rightarrow G_x]$, then this will be explained by the holding of the necessitation relation *N* between the two universals F and G: *N* [*F, G*]. Importantly, the first-order universals (*F* and *G*) here are *types*. It follows, therefore, that on this account causal relations are supervenient on the nomic necessitation relations. Since the laws strongly govern the objects and events which instantiate these universals (i.e. they govern top-down), we *do, therefore,* need to look beyond the tokens *c* and *e* to their types *C* and *E*.

With these distinctions in place, we can now consider what kind of theory of laws best accounts for God's relation to laws and regularities. Is there any reason to think that theists cannot admit anti-singularism? Does either the metaphysical necessity or contingency of laws fit better with a causal story involving God? These metaphysical issues have received scant explicit discussion. However, one author who has paid this matter some attention is Foster. It will be useful, then, to examine his account in the next section. The issues that will be shown to arise with Foster's account will provide a useful platform from which to build a better view.

3. Foster's Proposal

As noted above, Foster's account of laws is of the metaphysically robust *top-down* variety. It also takes the laws of nature to hold contingently. In order to understand why Foster proposes such a view, it will first be useful to outline the assumptions around which Foster bases it. Foster's starting assumptions, both theistic and metaphysical, may be stated as follows:

> *Divine Libertarian Freedom*: God is an omnipotent, independent, perfect being so must enjoy libertarian freedom.

> *The Contingency of the Actual World, @:* Given divine libertarian freedom, God's choice to create @ was a free decision, so he could have chosen to actualise a different possible world. Therefore @ exists contingently.

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[34] See David Hume (1888/1978: 20).

Theoretical Elegance: other things being equal, we ought to accept the account of causation and laws which avoids the most unnecessary complexity, and which minimises residual sources of puzzlement.

The Metaphysical Contingency of (Natural) Laws: laws are metaphysically contingent but nonetheless *confer* physically necessary connections between causal relata.

The Causal Source of (Natural) Regularities: Since it's merely nomically necessary that things are regular in the way they are in @, there must be something that causally imposes this regularity on the universe *qua* regularity.

Divine libertarian freedom is a thesis which has a strong pedigree within the classical theistic tradition. For example, St Thomas Aquinas (1975: Ch. 88) maintains that freedom is a perfection, and given that God is the most perfect being, he must possess freedom to the highest degree; his actions must not be limited by any causal state of affairs. The thesis is also supported by a number of prominent contemporary philosophers of religion such as Thomas V. Morris (1987) and Richard Swinburne (1977). Given its pedigree, I am willing to grant Foster this thesis.

The metaphysical contingency of @, as noted above, appears to follow from divine libertarian freedom. As Klaas J. Kraay notes: 'Theists generally assert that God's decision to create is a free one. In the contemporary literature, this thought is extended to the claim that God's selection of a possible world to actualise is free'. (2008: 860) For the sake of argument, I'll set aside any worries that, if @ is the best possible world, then God had no choice but to create @.

Theoretical elegance seems to be simply a conjunction of Ockham's Razor and the idea that a theory ought to explain as much as possible. I take it that these are commonly enough held desiderata for any philosophical theory. For these reasons, I will join Foster in accepting divine libertarian freedom, the contingency of @, and theoretical elegance. By contrast, the contingency of laws and the causal source of regularities are far more controversial proposals since they each favour particular theses concerning laws.

Foster maintains that the contingency of natural laws ought to be read in the sense of mere nomological—rather than metaphysical—contingency. He states: 'for any law, we surely have to acknowledge that there are possible worlds in which that law does not obtain'. (*Ibid*: 85) The idea is that we can envisage possible worlds which contain the *same properties* as those in @, but in which the *laws of nature differ* from those in @.

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This claim is, however, questionable. Granted, it does *seem* conceivable that one can envisage possible worlds in which the properties of objects which exist in @ conform to alternative laws. However, Foster is too quick to conclude that this demonstrates that the laws are merely nomically necessary. For, there is an alternative explanation for the imagined scenario. The dispositional essentialist, for example, will maintain that what one is conceiving in these kinds of scenario is a *very similar*, but *importantly different* kind of property, which behaves differently. (Take, for example, the case of Hilary Putnam's (1975) twin-earth scenario in which the water-like substance, XYZ, exists on a different planet. XYZ may appear to be water, but it is not (because it's not composed of H_2O).) The dispositional essentialist will maintain that since the imagined property of being H_2O has different causal powers,[35] it cannot be the same property. Rather, one is conceiving of a similar such property – one with different causal powers – and this simply gives rise to the mistaken belief that the properties instantiated in @ could have been governed by alternative laws of nature. Foster is not, therefore, entitled to the conclusion that laws are metaphysically contingent. To reach *that* conclusion, Foster needs the further argument that it is indeed the very same property we are envisaging – and, moreover, an argument to justify the move from conceivability to possibility – but no such argument is forthcoming.

Foster maintains that there must be a causal source of regularities, one which causes the regularities to hold *qua* regularities. By this he means that the regularities can't hold by mere accident. For, he urges, there must be an explanation for why *these* regularities hold as opposed to some others. The only plausible explanation, says Foster, is that the existence of the relevant regularities is to be explained in terms of the deeds of a supernatural agent. The existence of any of our universe's regularities is explained in terms of God's desire to make a universe in which that regularity obtains.

Foster argues that there are three ways we can view God's creative activity in relation to regularities and laws. After rejecting two of these accounts,[36] he opts for the third model whereby God creates the universe in two stages: (i) by directly creating the universe in its initial state or phase and, (ii) by then laying down prescriptions for the systematic ways in which prior states of the universe bring about later ones. As Foster explains:

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[35] Or perhaps more accurately: the property confers different causal powers onto its bearer.

[36] In brief the other two accounts are versions of the regularity view: (i) a model under which God causes the regularities to obtain in @ directly; and (ii) a model whereby God causes the regularities to obtain in @ directly, in stages. It's outside the scope of this chapter, however, to assess Foster's reasons for rejecting these.

> What [God] creates directly is just [the universe's] initial state, along with the prescribed modes of transition for the succession of states through time, and then he leaves all the subsequent history to unfold in response—each event or state of affairs that subsequently occurs occurring, as it were, in obedience to the original prescription, in the light of the currently prevailing conditions. (*Ibid*: 151)

Thus, Foster proposes a model under which God causes the instantiation of regularities *indirectly*: God directly creates the universe in its initial state, and then prescribes the orderly ways in which the universe must unfold. Due to the fact that God is seen as creating regularities indirectly, I hereafter refer to Foster's account as the *indirect creation of regularities view* (or ICR, for short). Foster further explains that under this account, God's causing of the regularities is given a creative role:

> The regularities are imposed on the universe as regularities, leaving open all the details of how things conform to them, and their imposition is then what, in combination with the conditions obtaining at each subsequent time, is responsible for fixing the relevant items of content in a conforming way (*Ibid*: 154).

Foster's indirect creation of regularities account might be contrasted with something like a continuous creation model,[37] where God creates the whole universe in a way that ensures the direct obtaining of regularities. Foster maintains that God merely *prescribes* the regularities for the universe in its initial stage, and then leaves this prescription to order the subsequent history of the universe in a regularity-exemplifying pattern. Foster takes pains to describe this indirect creation in terms of God *imposing the regularities on the world as regularities*. But how does God impose the regularities *qua* regularities? Foster answers that God does so by instituting laws of nature. As noted earlier, according to Foster, for there to be a law is for there to be 'something which causes, and thereby causally necessitates, things to be regular in [some] way' (*ibid*: 157). In so creating the laws, God thereby endows material objects with their dispositions (*ibid*: 165). How does Foster construe laws? Foster opts for an anti-reductionist approach; taking laws to be unidentifiable with any other ontological category.[38] Laws are supposed not to be concrete entities, but 'abstract entities whose existence consists in the relevant facts of nomic necessity'. (*Ibid*: 156) Under Foster's view, laws are taken to be abstract entities

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[37] Continuous creation is the theory that God is responsible for the persistence of objects by continuously creating them – rather than merely conserving them – at each instant of their existence.

[38] He does so due to philosophical objections to the alternative approaches. However, it's beyond the scope of this chapter to examine these reasons.

representing divine prescriptions for the regular ways in which worldly states of affairs unfold. In Foster's words:

> The term 'law' is a noun, signifying a certain kind of entity. But the status of laws as entities is, in a sense, only superficial… [f]or to speak of the existence of a certain type of law is, in effect, to speak of the obtaining of a certain type of fact—the fact of its being a law that (of its being naturally necessary that) things are regular in a certain way. Of course, from a grammatical standpoint, facts themselves are a kind of entity. But it is not as entities that facts fundamentally feature in the world … the fundamental way of recording the existence or obtaining of a law is not by referring to a law entity, but by stating that it is a law that (that it is naturally necessary that) things are regular in such and such a way. (*Ibid*: 39)

So, laws are entities in a loose sense; they are objective facts of *nomic* necessity, but they hold contingently. Because he takes the laws to be metaphysically contingent, Foster maintains that God must be causally responsible for them; God must *create* the laws. According to Foster, God creates the universe by (i) directly creating the universe in its initial state or phase, and then (ii) laying down prescriptions for the systematic ways in which prior states of the universe bring about later ones. The view must, therefore, be a top-down one: it pictures God as imposing the regularities *via* laws, and this in turn means the laws are viewed as existing in a metaphysically robust sense. The theory is also anti-singularist because the regularities and local matters of fact are posterior to the laws God prescribes, if *c* causes *e*, then that will entail that all *C*-type events cause *E*-type events.[39] [40]

4. Objections to Foster's Account

The main difficulty with indirect creation of regularities is in seeing what exactly is meant to be involved in God's creating a law. What additional thing are we to envisage God as doing besides creating the regularities themselves? According to Foster, it is imposing a regularity *as a regularity*. However, it's hard to see what thus could mean over and above simply *imposing a regularity*. Without further clarification, this view is at best obscure.

Foster does tell us that God causes abstract laws of nature to obtain, and that these prescribe the way in which nature must unfold. However, since the laws are abstract entities, the kind of causation involved must, seemingly, be of a different nature than the kind Foster

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[39] Foster considers indirect creation of regularities to be the *only* model which can (i) adequately account for God's imposing the regularities on the world *as regularities*, and (ii) successfully account for the assumptions outlined in §3.

[40] There is a complication here, since events fall under many different types, only some of which are relevant to any regularities. So I should add the qualification that here it is assumed that C and E are types under which c and e are regularity-instantiating.

is otherwise seeking to elucidate. Foster cannot give an explanation referring to regularities themselves since these are the very things he is seeking to explain. Nor can Foster attempt to liken God's creation of laws with his creation of any other abstracta. For, unlike other abstracta, laws are merely *contingently* necessary. Indeed, we may well question whether the notion of a contingent abstract object is a sensible one. Usually, necessary existence is supposed to be a defining feature of abstracta. By departing from this notion, we lose part of our already somewhat loose grip on what these metaphysically mysterious entities are supposed to *be*. As noted above, for Foster, laws are entities only in a *loose* sense (they're facts). Yet, even so, the idea of divine creation of an abstract fact is just as — if not more — obscure than the creation of an abstract *entity*. Foster must, it seems, take the divine creation of abstract laws as primitive. However, were he to do so, he would fall foul of his principle concerning theoretical elegance — leaving a sizeable amount of residual puzzlement.

Moreover, it's difficult to see how Foster could explain how a law of nature itself can cause. Another defining feature of abstracta is often taken to be their causal inertness. Numbers, propositions and sets are supposed to be distinct from the concrete realm since they cannot interact with it. How, then can a law cause a concrete regularity? Again, there's much that is puzzling here.

A further objection to Foster is that it seems he has overlooked the fact that God's actions themselves are regular.[41] Consider, for example:

(RO) For all states of affairs x, if God wills that x occur, then x will occur

(RA) For all divine actions y, if God performs y, y will be perfectly good.[42]

How would Foster be able to account for such divine regularities? Presumably he needs to assert the existence of a law which governs such regularities of divine activity. However, such a proposal would undermine the divine aseity thesis. For, according to AT, God is entirely metaphysically independent and the paradigm free agent. Yet, if God's actions had to be guided and governed by abstract laws there would certainly be a real conflict with this thesis.[43]

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[41] This point is also made by Evan Fales (2004).

[42] RO and RA (my abbreviations) stand for the regularity of omnipotence and the regularity of action, respectively.

[43] There are a number of philosophers, such as William Lane Craig (2014), who argue that the existence of abstracta would undermine AT.

Furthermore, if RO and RA were accounted for by abstract laws, then, by Foster's own reasoning, these laws would also need to be caused to exist. However, since God would be required to cause them to exist, they *themselves* would be instances of RO and RA. In which case, there would need to be yet *further* laws to explain these regularities. Hence, a vicious infinite regress threatens. Moreover, God would not be able to create such laws antecedently to RO and RA; these are essential conditions on *all* his actions. In order to block such a regress, a possible move for Foster to make would be to maintain that RO and RA are exceptional cases; perhaps divine regularities do not require a governing law which explains them. However, aside from such a response being *ad hoc*, it would be an unattractive move by Foster's own lights, since the resulting picture would fall foul of his principle of theoretical elegance, in positing a disjunctive account of divine and natural regularities.

Perhaps the above is uncharitable to Foster, for his contention is that laws require explanation *because they are merely contingently necessary*. In the divine case, however, the associated regularities hold of *necessity*. Therefore, if laws are only needed to explain contingent regularities, there needn't be a law governing divine action. Running with this contention, Foster might argue that one shouldn't expect, or indeed desire, that there be an explanation of divine regularities which exactly matches the one given for natural regularities. He could add that since God is a perfect, non-spatiotemporal, omnipotent agent, we ought not to expect divine regularities to have the same kind of explanation as that one specified for imperfect, spatiotemporal worldly entities. In this case, perhaps Foster could suggest that the explanation for the divine regularities resides in *God's nature*.

Indeed, Foster *should* take this response, for God ought not to depend on laws which regulate his action; rather, God's action should be thought of as being guided by his internal character (i.e. by the divine properties: moral perfection, omniscience, etc.). This is because AT is best respected when the facts responsible for guiding God's action are those which are internal to him. Below we will see why the intuitions underlying this reasoning are ones that also ought to be applied when explaining the behaviour of *natural* objects. In the next section, the dispositional essentialist view of laws will be shown not only to be the best way of accounting for the above intuitions, but also to be the most theistically acceptable account of natural laws, regularities, and God's relation to them.

5. Dispositional Essentialism

In this section, we will see that a view Foster dismisses far too quickly is not subject to the same difficulties that Foster's own account faces. The view in question is dispositional essentialism. According to dispositional essentialism, at least some intrinsic properties have *dispositional essences*; the essence of a property P is constituted by the nomic or causal roles P plays. The causal role of P is given in terms of its potential causes and effects, and, it's the natural causal powers of things which produce the regularities.[44]As Mumford explains: 'Properties are to be regarded as clusters [of powers] whose identities are thereby fixed by extension'. (2004: 171) There is a variety of ways of cashing out dispositional essentialism. Alexander Bird maintains that some properties are essentially dispositional and these properties include the properties that figure in the *fundamental laws* of nature (2007: 438). Ellis (2001) holds a similar view but adds to his ontology a metaphysic of *natural kinds*, which, he argues, have essential properties (e.g. electrons are essentially negatively charged). Some dispositional essentialists take the stronger position, that *all sparse*[45] properties are essentially dispositional. This stronger thesis implies the transworld identity condition that: properties P and Q are identical iff they play the same theoretical roles. The theoretical roles played by a property determine how its bearer is disposed to act in various circumstances.

Foster's objection to dispositional essentialism is that even if we can make sense of the notion of an autonomous disposition—i.e. a disposition that does not rely on an underlying law of nature—the existence of individual autonomous dispositions cannot explain *collective* regularities: we still have 'no explanation of why different objects of the same intrinsic type have the same dispositions'. (2004: 115) Foster rejects this alternative because he is unable to see what could sustain a necessary association between intrinsic properties and powers or dispositions. However, dispositional essentialism maintains that (at least some of) the intrinsic properties of objects are essentially dispositional in character, so some of the intrinsic properties are the dispositions, meaning that the relation between the two types of property (at least in some cases) would be one of *identity*.[46]

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[44] The dispositional essentialist may be either eliminativist or reductionist about laws. Mumford (2004: Chapter 10), for example, maintains that once we identify properties as having certain essential causal powers, laws can no longer have a governing role – a role he takes to be a necessary characteristic of laws – and so we therefore should eliminate them from our ontology. Alternatively, one might deny, along with Bird (2007: Chapter 9) that laws require no such governing role and that laws supervene on dispositions. However, this debate need not concern us here. For either position is consistent with the view I advance below.

[45] Following David Lewis (1986b: 59-60), sparse properties are intrinsic, highly specific and perfectly natural properties; they are those which 'carve nature at the joints'.

[46] Also pointed out by Evan Fales (2004).

As noted in §2, it is something of a philosophical orthodoxy to endorse a distinction between categorical and dispositional properties. Given this distinction, and given that dispositional essentialists are realists with respect to dispositions, there are three main positions they could take with respect to the *ontology* of properties. *Mixed views* accept the existence of both types of properties (commonly, these take the dispositions to be rooted in categorical bases). *Dispositional monism*, as the name suggests, denies the existence of categorical properties, and maintains that all properties are dispositions. A third view – counter to orthodoxy – rejects any ontological distinction between categorical and dispositional properties. Mumford (1998), for example, maintains a *'neutral monism'*, which asserts that all properties are of the same fundamental type, but may be viewed both as dispositional and categorical. It ought to be noted that the second and third of these views provide further replies to Foster's objection that nothing could explain the association of dispositions and intrinsic properties. Dispositional monism will entail that all of an object's properties, including its intrinsic ones, are dispositional; neutral monism will entail that the intrinsic categorical properties of objects are identical with their dispositional ones. However, given that Mumford (1998) has argued convincingly at length that, *inter alia*, the neutral monist has an ontologically and explanatorily more parsimonious theory than their rival, it seems that this is the strongest form of dispositional essentialism to advance.

Given that dispositional essentialism is (*pace* Foster) available to theists, it would be worth fleshing out the details required in order to make sense of God's relation to natural laws. How ought a *theistic* dispositional essentialism to characterise the notion of dispositionality? Consider the example case of the disposition of water to boil and evaporate when heated to 100°C. What's involved appears to be a relation between the liquid's being composed of H_2O molecules that have a particular structure, being heated to 100°C, and gaseousness; between the dispositional/categorical property, stimulus, and manifestation, respectively. According to the dispositional essentialist, properties have their causal profiles essentially; since any property that is essential to X is necessary to X, the relations between these properties will hold *necessarily*. These relations will also be *internal* (where, following Lewis (1986b: 62), an internal relation is one that supervenes on the intrinsic natures of its relata taken separately (and external otherwise). For, if the relations between dispositional/categorical property, manifestation, and stimulus were external, then God would be required to establish them, in addition to creating the properties in question. But, if this were the case, then the ontological priority of dispositions over laws of nature would be undermined, since it is precisely those connections

(i.e. relations) which laws of nature express. For this reason, a theistic dispositional essentialism ought to maintain that such relations are internal.

What should the theist characterise these properties as? Broadly speaking, there are two main options: (i) the Platonic *ante rem* view, and (ii) the Aristotelian *in re* conception. The former view takes properties to be Platonic universals, abstract entities which exist independently of their instances. The latter view, by contrast, takes properties to exist only in their instances either as concrete universals (ones that are multiply-instantiable) or as particularised tropes (which are not multiply instantiable, but form a resemblance class with properties of the same type).

Now, in order for theistic dispositional essentialism to fare better than Foster's view, it will need to take an Aristotelian conception of properties. For, one of the criticisms levelled against Foster's view was that it relied on the conception of God's creating *abstract* laws of nature; a notion which was obscure at best, incoherent at worst. If the dispositional essentialist account on offer here were to identify properties with Platonic universals then it would face the same objection. Therefore, theists ought to countenance either concrete universals or tropes as the metaphysical kind with which to associate dispositional properties. In this case, they may maintain that in creating states of affairs and particulars, God also creates dispositional properties. It is in creating these dispositional properties that God creates laws of nature.

There are a number of theoretical benefits which follow from adopting a dispositional essentialist account of God's relation to laws (i.e. theistic dispositional essentialism) as opposed to a top-down account such as Foster's indirect creation of regularities. As noted, theistic dispositional essentialism presents a 'bottom-up' approach to laws, as opposed to indirect creation of regularities which views laws as governing objects and events in a 'top-down' fashion. A bottom-up approach to laws fits better with the sovereignty and aseity theses. If the laws were to supervene on the essential dispositional properties of objects, they would not be external entities imposing restrictions on the objects they govern. RO and RA, for example, can be accounted for by omnipotence and omnibenevolence *qua* dispositional properties.

We can see then, that theistic dispositional essentialism allows for a *unified* account of divine and non-divine causation, whereas Foster's account cannot. The dilemma facing Foster's indirect creation of regularities account arose because of the fact that Foster was unable to account for divine regularities in the same way as natural regularities. However, under theistic dispositional essentialism, both God and non-divine entities have intrinsic properties

which are essentially dispositional in nature. These properties explain the regularities in God's action, just as they explain the regular behaviour of non-divine objects.

I pointed out in §4 that Foster may respond to the objection regarding accounting for divine regularities with the claim that we should expect an explanation to come from God's nature rather than laws of nature. This seems right. Presumably, if we are explaining the regularity of action of a divine omnipotent agent, then if there is an explanation available which refers only to facts which are wholly dependent on—and internal to—an agent, then this explanation ought to be preferred over one which refers to facts that are either entirely or partly independent of that agent. This is due to AT: if God is wholly independent, then the regularity of his actions ought not to depend on facts external to him. However, theistic dispositional essentialism offers an explanation of this type since the explanation of RO and RA can be given by pointing to the respective divine properties *omnipotence* and *moral perfection*. These properties (however they are defined) would seem, at least, to imply the following dispositions, respectively:

D1: being such that whatever state of affairs, S, you will, S is actualised.

D2: being such that whatever state of affairs, S, you will, S is for the good.

Now, it may well be that there is more to being omnipotent than possessing D1, and that there's more to being morally perfect than possessing D2. However, it seems uncontroversial that any omnipotent being (*qua* omnipotent being) must possess D1, and any morally perfect being (*qua* morally perfect being) must possess D2. In other words, D1 and D2 are, respectively, necessary condition on omnipotence and moral perfection.

So, it looks like the best way to respond to the need to account for divine regularities is by adopting a dispositional essentialism with respect to the divine nature. That is, we should take it that the attributes constitutive of the divine essence are dispositional in nature. Take, for example, divine regularity D1: being such that whatever state of affairs, S, you will, S is actualised. This regularity will be accounted for by the divine property, omnipotence, taken as a dispositional property, together with the divine will. The regularity D1 will be accounted for by the internal relation which holds between omnipotence, God's will, and actualisation. Therefore, since omnipotence is part of the divine nature, theistic dispositional essentialism, unlike the indirect creation of regularities view, will not suffer the problematic consequence that there is a law external to God to which God is subject. Theists have, then, further reason

to maintain dispositional essentialism. Theistic dispositional essentialism provides an explanation of divine regularities which fully respects both AT and the thesis of divine libertarian freedom.

Now, perhaps the theist would be justified in presenting a non-unified account if there were relevant differences between divine and non-divine causality which made it such that a unified account was problematic. However, if a unified account is available, and if there are no reasons for the theist to prefer a disjunctive account, then, on the basis of theoretical elegance, a unified account should be favoured.

There are at least two respects in which theistic dispositional essentialism presents a simpler theory than indirect creation of regularities. Firstly, under theistic dispositional essentialism, since laws supervene on the essential dispositional properties of objects, God need do nothing more than create those objects (and properties) to create the regularities and laws of nature. Under Foster's account, when God creates the actual world and the objects within it, there is a further thing he is required to do – he has to create the laws *in addition to* these objects. Secondly, substance causation is *prima facie* more intelligible than causation of laws. For, as much as causation is observable, it is the causation of one object or agent by another, (or at least, events involving them) which we have experience of observing. Yet, we have no such observation of the creation of non-substances; it is unclear how one can even make sense of the creation of abstracta. At the very least, Foster owes us some kind of indication of what might be involved here.

I now turn, in the next section of this chapter, to consider and respond to some objections one may present against theistic dispositional essentialism.

6. Objections to Theistic Dispositional Essentialism

Objection 1: Under this view, properties have dispositions, powers, or potencies essentially, since it is part of a property's very nature that it behaves in the way that it does. It is therefore *necessary* that properties behave in the ways they do. However, if regularities are metaphysically necessary, then one might think this undermines the need for God. The worry is that there is no creative role left for God in respect to the instantiation of regularities.

Reply: This is misguided. Under theistic dispositional essentialism, properties have their dispositions and powers essentially and so the laws these properties ground will (*contra* Foster) be necessary. It follows, then, that it's outside the scope of God's power to decide which laws of nature will govern the behaviour of the properties and objects which exist in @. However,

it nonetheless remains within God's power to decide *which properties* to instantiate. In having causal responsibility for which properties are instantiated in @, God thereby decides how things will behave. According to dispositional essentialism, the laws are metaphysically necessary (but logically contingent) in every world in which the relevant properties exist.

Objection 2: Since God has his dispositions essentially, and since his dispositions ground laws, divine aseity undermined here too. For, God will have no control over, and therefore no responsibility for, his nature and the laws which regulate his actions.

Reply: At the very least, it's not obvious that divine aseity is undermined. Under Foster's preferred account, God is, as argued, constrained by laws which are *independent* of him, for the laws are construed as governing in a top-down manner; this definitely threatens divine aseity. However, under theistic dispositional essentialism, whilst God's dispositional nature will be essential to him, *qua* divine being, this merely constitutes a restriction in terms of facts *dependent upon, and internal to, himself only*; dispositional essentialism is a bottom-up view of governance. It's not clear that being constrained by one's own nature is the kind of thing that AT should preclude. Consider, for example, that a good number of theists already accept that God's nature precludes him from sinning, but this is not thought to impugn aseity.

Objection 3: Classical theism maintains the doctrine of *pure actuality* (*actus purus*); the idea that there is no potentiality in God's nature. (For example, this can be found in Thomas Aquinas (1975: Chapter 17 [47])). Yet, pure actuality seems in direct tension with the suggestion that God's nature be essentially dispositional.

Reply: To begin with, it's really not clear to what extent the notion of pure actuality even makes sense or what further role it has to play in perfect being theology. However, if one does go in for this view, we can allay any worries that it is undermined by theistic dispositional essentialism. Firstly, recall that the view being advocated takes dispositional properties to be identical to categorical ones. Secondly, it can be maintained that God's dispositions are *eternally manifested*: there is never any time at which these dispositions are only *potentially* manifested. Thirdly, if one finds the notion of a disposition that is never unmanifested problematic, we can still point out that the potentiality lies in the *manifestations* of God's (and other thing's) dispositions, not in the dispositional property itself: God actually possesses his dispositional properties even when those properties are only potentially, not actually, manifested. Consider: salt remains water-soluble even when it's not actually dissolving in water.

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[47] He states (*op. cit*): 'God and prime matter are distinguished: one is pure act, the other is pure potency, and they agree in nothing'.

7. The Universals Account

Aside from these objections, one may point out that there is an alternative view of laws available which is yet to be considered: the universals account. If the universals account is as plausible as theistic dispositional essentialism, then theists have two available alternatives to Foster's account. However, the universals account is not compatible with traditional theism.

As explained above, the universals account takes laws to be a relation between second-order universals. According to Armstrong, this relation is a relation of nomic necessitation, N. So, to recap, if it is a law that: $\forall_x [F_x \rightarrow G_x]$, then this will be explained by the holding of the relation N between the two universals F and G: N [F, G]. In §2.3, it was noted that, according to the universals account, causal relations are supervenient on the nomic necessity relations: the laws strongly govern the objects and events which are subsumed by them. Armstrong explains this in greater detail when he states:

> Transfer in thought the concept of necessitation from the sphere of particular states of affairs, taken simply as particular, to the sphere of sorts or types of states of affairs, that is, universals. Instead of a's being F necessitating it to be the case that a is G, without benefit of law, we have instead something's being F necessitating that something to be G, where a type of state of affairs (the universal F) necessitates a type of state of affairs (the universal G). It is then clear that if such a relation holds between the universals, then it is automatic that each particular F determines that it is a G. That is just the instantiation of the universal N(F, G) in particular cases. The left-hand side of our formula represents the law, a state of affairs which is simultaneously a relation. The right-hand side of the formula represents the uniformity automatically resulting from the instantiation of this universal in its particulars. (1985: 97)

What this means is that in order for God to be involved in any causal nexus in which he is the cause, and an event is the effect, (i.e. God's ability to cause) will be dependent on, or metaphysically posterior to, the holding of a nomic necessitation relation between universals instantiated by himself and those instantiated by whatever objects or events he is bringing about. The problem here is that the types of action God can perform and the kinds of effects he can bring about will be dependent on the laws, rather than any facts internal to himself; a result which is in tension with at the thesis of divine aseity.

A proponent of the universals approach might reply that whilst there is indeed a dependency here, it is not a problematic one. For, since the universals are merely contingently related, *God* must be responsible for setting the relations between universals in the way that they are arranged. In this case, the universals (and *ipso facto* the nomic necessitation relations) depend on God; not vice versa.

In response to this, it ought to be pointed out that God's setting the relations in that way itself must constitute some kind of causal activity. For, if God's grouping of universals is

an activity, and (successful) acts are understood in causal terms, then this will be an instance of causing. However, if such an act is to be *causal*, there would need to be nomic necessitation relations in place *already*. As explained above, this is because the account is anti-singularist.

Dispositional essentialism has the benefit that it attributes causal explanations to the dispositions of the objects involved. Contrastively, under the universals approach, the explanation is being tied to the laws. The nomic necessitation relations are responsible for the pushing and pulling. Under the dispositional essentialist account, the laws are derivative of the properties of objects, so the causal 'oomph' lies with the objects. So, in sum, theism fits better with a bottom-up, as opposed to a top-down view of laws.

8.   The Regularities/Systems Account

As we've seen, under regularity theory, laws are supervenient on the non-causal properties and relations of particulars. The regularity theory is therefore a bottom-up view. Does this mean it offers theists an alternative to theistic dispositional essentialism? Unfortunately not. For, views of this type also maintain a thesis which Michael Tooley (1984: 93) terms the Humean Supervenience of Causal Relations (HSCR):

> (HSCR):   The truth values of singular causal statements are logically determined by the truth values of statements of causal laws together with the truth values of noncausal statements about particulars.

The regularity theory maintains that the truth values of causal statements are logically determined by the truth values of statements regarding causal laws and particulars. It also maintains that causal relations are *ontologically* supervenient on causal laws and particulars. What this means is that causal laws are ontologically prior to (or more basic than) causal relations.

HSCR is to be contrasted with singularism regarding causal relations, which, recall, maintains that it is the 'causal relations between states of affairs that are primary and that *causal laws are secondary*'.[48] (Tooley, 1984: 96) singularism thus views the ontological and explanatory priority of causal relations and causal laws in the opposite direction to the regularity theory.

Since the regularity theory maintains HSCR, it apparently does not leave any room for singular causation. Aside from any philosophical worries one might have with this view, it

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[48] Emphasis added.

seems particularly problematic for the theist. Why is this? To begin with, perhaps the most important causal commitment the theist has is:

Creation: The universe was created *ex nihilo*, by an eternal, maximally perfect God.

The doctrine of Creation is taken to present a unique causal act. Since classical theism takes Creation to have occurred *ex nihilo*, there were no causal events prior to it, and there are no and never will be any causal events comparable to it. Creation is the *first* causal event – the event from which causally precedes all others. However, if this doctrine is to be maintained, then it looks to provide a strong case for singularism regarding causal relations. For, if the doctrine of Creation is to have meaning, it must do *so individually and in its own right*; its meaning must not be—indeed, by definition, it *cannot* be—determined by true statements of causal laws and particulars, because the causal laws themselves depend on the regularities in nature. Yet, Creation is ontologically prior to such regularities. Theists cannot, then, hold any version of the regularity view, since Creation implies singularism.

A second, related, reason why classical theism is inconsistent with the truth of the regularity theory comes from the regularity theory's tension with AT. As was argued in §4, contra Foster's position, if God is perfectly free then he ought not to be dependent on the holding of laws in order to act. However, if the regularity theory is true, then so is HSCR. But if HSCR is true, then God may only cause if (i) there is a class of resembling cases of acts, and (ii) if there is a covering law. Since (i) and (ii) are inconsistent with divine aseity, the regularity theory does not do justice to the commitments of classical theism.

9. Miracles

I have argued that there are two main problems with the alternative accounts to TDE: the universals approach, and the regularity theory. The first was that they attribute causal power to laws rather than agents – a thesis anathema to the commitments of traditional theism. Secondly, they each rule out singularism – a thesis which traditional theism ought to uphold. TDE, by contrast, does indeed permit singularism in addition to the characterisation of agents and objects with genuine causal power or 'oomph'. There is, however, a further feature of dispositional essentialism which puts it at a greater theoretical advantage when upheld in a theistic setting. The universals approach and regularity theory, along with any top-down view of laws such as Foster's, cannot, it seems, readily account for the existence of miracles. Let us

suppose that something akin to David Hume's characterisation of a miracle is correct; that we take a miracle to be 'a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent' (1748/1975, p. 115). Let us further suppose also that it that it would be preferable if one's account of laws provided some way of accounting for miracles. Is there any feature of laws, as conceived under any of the alternatives to TDE, which will readily account for the existence of miracles? I will argue that there is not.

Consider, first of all, Foster's approach, ICR: laws are abstract entities representing divine prescriptions for the facts of nomic necessity. Under ICR, then, laws represent God's will. Given this, explaining how there could be miraculous events proves challenging to say the least, since such events would constitute violations of God's will. To the extent that there is scope to make room for the occurrence of miracles here, it is surely only on an ad hoc basis.

The universals approach, like ICR, is a top-down account of laws. As we have seen, under this view, laws are identified with second-order universals: necessitation relations between universals. There needs to be some explanation for how these second-order relations really could still count as *necessitation* relations, then, whilst also allowing for there to be violations or counterexamples to them. With such a robust account of laws, it appears difficult to see how any explanation, if it did work, would have any independent grounds.

The regularity theorist has a well-known difficulty in accounting for miracles. For, if the laws are simply generalisations of regularities, then any apparent violation would seem to suggest that the relevant law was not, in fact, a law in the first place; thus, providing no evidence of a miracle at all.

TDR, fortunately, is in a much better position to explain the occurrence of miracles. This is because there are features of dispositional properties which readily allow for an account of divine interventions. Those such as Bird (2008) have argued for the existence of *masks* or *antidotes*; those things which block the process by which a disposition gets manifested. As an example of this, consider the case of a fragile vase which is packaged in bubble wrap. Given that the vase is fragile, it is true that it is disposed to break when dropped. However, if dropped, it would not in fact break due to the packaging. Importantly, the presence of the bubble wrap does not remove the vase's fragile disposition; rather, it masks the process that would otherwise lead to its manifestation. Given that such mechanisms have independently been recognised, the theist has a non-ad hoc explanation of miracles available: miracles can be identified with certain types of (divine) antidotes.

I do not by any means claim to have provided anything near a full account of miracles under TDE. I merely hope to have argued, firstly, that there is relatively solid ground here on

which to *base* a theory; and secondly, that this gives TDE is a crucial advantage over other views of laws from a theistic standpoint.

10. Conclusion

Foster has argued that the only feasible theistic account of laws is one that takes a realist view of laws; one where God causes those laws to obtain and thereby imposes regularities as regularities. Foster's view has been shown to be deeply problematic. However, we have seen that there are a number of ways in which a dispositional essentialist account fits more naturally with the commitments of classical theism and avoids the problems associated with Foster's view. In presenting a plausible account of how it is that the theist can endorse a theory of natural laws which accepts that laws play a governing role in causation, dispositional essentialism is at least further deserving of the theist's attention.

III. DIVINE CONSERVATION & OVERDETERMINATION

1. Introduction

A commonly-held assumption within the metaphysics of causation is that causation is not systematically overdetermined (call this thesis of No Systematic Causal Overdetermination, NSCO). To endorse NSCO is to say that it is not the case that there are multiple, distinct, singularly sufficient causes for the same effect. One often-cited example of overdetermination is that of a firing squad, whose members simultaneously shoot at the same target – each shot is sufficient for causing the death of the target, though, for any squad member it will not be the case that, had they *not* shot, the target would have survived (since the shots from other members would have been sufficient causes of death). The thesis NSCO is often implicitly assumed, but those such as Jaegwon Kim (1993, 2001) and Trenton Merricks (2001) explicitly endorse the thesis. Kim, for example, endorses the *causal exclusion principle*: if a property E has a sufficient cause C, then no other property C^* distinct from C can be a cause of E (2001: 276), and Merricks even denies the existence of non-living macrophysical objects on the grounds that if such things existed, they would overdetermine their effects since those effects would also be caused by their microscopic parts.

Why should we believe in the principle, NSCO, though? After all, singular cases of overdetermined causation are not themselves *obviously* problematic. Take the example of the firing squad above, for example. It seems perfectly acceptable in such cases to accept the existence of more than one distinct sufficient cause here. Though, one might think that in such cases, there must be a fact of the matter with regards to which shot was the one *true* cause (whichever one hit first, for example). Nonetheless, it seems perfectly coherent to think that there is a possible scenario in which all shots fired hit the target at the same time. Such scenarios are problematic for the reason that the overdetermination presents a 'worrisome causal redundancy' (Sara Bernstein (*MS*: 2), Ted Sider (2003)). If there is a set of distinct, sufficient causes for the same effect, then given that just one of those causes is sufficient for bringing about the effect, there seems to be nothing left for the other causes to do. Overdetermination is even more worrisome in the case that it is widespread. One obvious

reason for this is that any theory which did endorse systematic causal overdetermination would be far less parsimonious than any competing theory which ruled it out. So, as far as we are concerned to provide theoretically and ontologically parsimonious metaphysical theories, then *ceteris paribus*, overdetermination ought to be ruled out.

There is good reason for thinking that divine causality conflicts with NSCO, however. The God of classical theism is supposed to be the creator and sustainer of all worldly affairs. Yet, if creation and conservation are understood to be causal notions, then all creaturely action will seemingly be systematically overdetermined, i.e. for all cases of creaturely action, there will be a sufficient divine *and* non-divine cause. Take the following case as an example of this issue: suppose that object, O, persists from t_1 to t_2, and that we wish to say that, as seems highly plausible, O's existence at t_1 causes (i.e. is causally sufficient for) its existence at t_2. Suppose further that divine conservation is a causal notion. Then, it will also be the case that God's willing that O be conserved from t_1 to t_2 will be causally sufficient for O's existence at t_2. In this case, there will be two distinct sufficient causes for O's existence at t_2, meaning that O's existence at t_2 is causally overdetermined. Yet, since God created and conserves everything in existence for every moment of its existence, then the doctrine of sovereignty will conflict with NSCO.

This chapter proceeds as follows. §2 outlines the standard models of divine conservation. §3 presents a number of objections to these models, including the objection that they conflict with NSCO. §4 outlines some contemporary accounts of conservation, due to Philip Quinn (1998) and David Vander Laan (2006), which purport to circumvent the issues facing the standard models; it also gives reasons for thinking that that none of these are satisfactory. In highlighting the failings of the extant models of conservation, this discussion brings into focus a number of desiderata which any satisfactory model of conservation ought to meet. §5 presents my own model of conservation – one which incorporates a substantivalist account of spacetime. This account, I argue, can meet all such desiderata, including its being co-tenable with NSCO. §6 rebuts a number of objections, before, finally, §7 concludes that my proposed substantivalist model is the most successful account of divine conservation on offer.

2. Divine Conservation: the Standard Models

Classical theism maintains not just that God is causally responsible for bringing the universe into existence, but also that he conserves the world; God is supposed to sustain the universe in existence from moment to moment, enabling its continued existence over time. As William

F. Vallicella explains, the notion of divine conservation implies that 'creatures, once in existence, lack the power to continue in existence on their own: without divine conservation from moment to moment they would fall into nothingness.' (2002: 187) However, there is dispute as to how divine conservation ought to be understood in relation to divine creation. According to the *creative conservation model*,[49] divine conservation is effectively continuous re-creation; in conserving the world, God bears the same type of causal relation to the world as he did when he first created it.[50] The opposing view – let us call it the *non-creative conservation model* – is that conservation is a distinct type of causal relation, meaning that divine conservation and divine creation are distinct doctrines describing two distinct types of divine activity. Vallicella presents the alternatives as follows:

> No doubt creation is creation *ex nihilo*: the God of traditional theism is not a demiurge who operates upon pre-given materials. But is conservation also a species of divine action ex nihilo? Or does it, unlike creation, presuppose a pre-existent object upon which God operates? (*Ibid.*)

Supporters of creative conservation consider conservation to be a species of creation ex nihilo; supporters of non-creative conservation do not. Instead, the latter restrict the scope of divine creation to God's bringing all (contingent) things into existence at some initial moment of time.[51][52] Divine conservation is then viewed as God's continuous activity of preserving such entities in existence post-creation in a manner which does not require any form of continuous creation.

3. Problems with the Standard Models

There are well-noted difficulties associated with each of the creative and non-creative models of conservation. This section outlines and expands on these worries.

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[49] This is often referred to as 'the continuous creation model'; however, I prefer the term 'creative conservation', as it draws a better contrast with the opposing model.

[50] Well, perhaps not an exactly similar relation, since it seems that, on this view, divine creation is akin to an event, whereas divine conservation is a process – the continual re-creation of a set of entities.

[51] Whereas an initial moment of creaturely existence is not required under the creative conservation model.

[52] This oversimplifies things somewhat since it is, of course, possible that God brought some entirely new objects (human souls for instance) into existence ex nihilo at some point after the initial moment of creation. I will, however, ignore this complication in what follows since it is not relevant to the central argument of this chapter.

3.1   Against Creative Conservation

One common worry concerning the creative conservation model is that it threatens the diachronic identity of worldly objects since, as William Lane Craig puts things:

> If at every *t* God creates [*x*] ex nihilo, is it really *x* which exists at successive instants rather than a series of simulacra? Since there is no patient subject on which the agent acts in creation, how is it that it is the identical subject which is recreated each instant out of nothing rather than a numerically distinct, but similar, subject? (1998: 184)

The worry, then, is that on the creative conservation model, we have no way to differentiate the case in which (i) God creates a series of qualitatively indiscernible, but distinct, objects at consecutive times, from (ii) the case in which God continuously creates the same object such that it continues to exist over a stretch of time. But the problem here is not merely epistemic. For, besides the worry we might have about our inability to distinguish persisting objects from a series of instantaneous simulacra, there seems also to be good metaphysical reasons to doubt that the objects God sustains could properly be said to be *persisting* entities at all. This follows from what Vander Laan terms the immanent causation thesis (IC):

> IC: Necessarily, if a contingent object O exists at a time *t* and *t* is not the earliest time at which O exists, then O's existing at *t* depends causally on O's existing at some earlier time.
> (*Ibid*: 160)

If IC is true, then any object must persist in virtue of causal relations which it bears to itself at earlier times. However, if conservation is creative conservation, then any O's existing at some time, *t*, which is not the earliest moment of its existence does not depend causally on O's existing at some earlier time, *t'*, but rather, on its being *re-created* by God at *t*.

   A further issue for the creative conservation account, levelled by Nicholas Everitt (2010), is that on this account, both human free action and divine moral impeccability are seriously undermined. Take, for example, Betty's decision to pick up an axe (at t_1) and thrust it into Bertie's head (at t_2), causing him to die. Intuitively, this action is one which is freely performed by Betty, and which Betty is therefore morally accountable for. However, once we consider the fact that God is causally responsible for sustaining the chain of events[53] at t_1 and t_2, then it seems to follow that God is, either solely or additionally, morally culpable for Bertie's death. And, as Everitt (*ibid*: 81) explains, once Betty makes the decision to drive the axe into

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[53] There is a question to be answered here, about the nature of the entities that God is supposed to sustain. I will address this issue shortly.

Bertie's head, '[i]t is not simply that [God] lets or permits the ensuing sequence of events. The doctrine of divine sustaining claims that these events will not occur *unless he actively brings it about that they occur.*'[54]

There is, then, a dilemma facing theists here. In order to accommodate human free action and responsibility, theists must permit worldly agents genuine causal efficacy. That is, theists must allow that claims of the form '*s* brings about *e* at *t*' are true (where *s* stands for some subject, *t* for some time, and *e* for some event or state of affairs). But, according to the creative conservation model, God is also responsible for bringing about every event or state of affairs, so for any *e* at *t*, God is also a sufficient cause of *e*. In short, for each event that occurs, we apparently have two distinct sufficient causes: a divine cause, and a creaturely – or *secondary*[55] – cause. The first horn of the dilemma, therefore, is that creative conservation entails systematic causal overdetermination.

Is this horn of the dilemma a relatively blunt one, though, given the recent attempts (e.g. from Ted Sider, 2003) to argue that causal overdetermination is benign? Unfortunately for the creative conservationist, no. The question concerning the viciousness of causal overdetermination *in general* is not germane here, since there is reason for rejecting causal overdetermination where the particular case of divine action is concerned.[56] The reason for this is that, on the classical theistic picture, the divine will is, to borrow terminology from Jonathan Kvanvig and David Vander Laan (2014), *complete* and *irresistible*, since:

> The initial existence of the universe is due to the creative activity of God, where it is metaphysically impossible that the relevant action of God occur and yet the universe fail to come into being, and this creative activity of God is complete, in that the existence of the universe is solely due to the creative activity of God. (*Ibid.*)

I take it that by 'irresistible', Kvanvig and Vander Laan mean that the divine will is *necessarily sufficient* for bringing about the desired state of affairs; and that by 'complete' they mean that it is also *exclusive* – it is the sole cause of the desired state of affairs. Completeness and irresistibility may be seen to follow from divine omnipotence and sovereignty, respectively. It is because of these theses that overdetermination should be avoided at all costs in the divine case. Overdetermination undermines totality and exclusivity; if we have both divine and non-

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[54] Emphasis added.

[55] Secondary causation is the term commonly used to refer to those causal relations brought about by creaturely and material entities. This is to be contrasted with divine – or *first* – causation.

[56] Although, considerations of parsimony – should we deem those important – do give us reason to avoid causal overdetermination where possible. See Jaegwon Kim (1973) and Trenton Merricks (2001) for two widely-discussed rejections of causal overdetermination.

divine sufficient causes for each creature-involving effect, then *ipso facto*, creaturely action makes divine action unnecessary and non-exclusive, and consequently, God becomes *de trop*. It is for this reason that theists should seek to rule out systematic overdetermination (and so endorse NSCO[57]) in any model of conservation.

On the second horn of the dilemma, overdetermination is avoided, but only at the cost of denying secondary causation. Causal overdetermination is merely apparent, since, on this view, it is *God alone* who is causally efficacious. To make this move would, of course, be to embrace *occasionalism*,[58] the thesis that there is only one true cause – the divine cause – such that any creaturely or worldly cause is merely an occasional cause (i.e. worldly entities merely provide the *occasions* or circumstances on which God acts).[59] It is hard to see, on this view, how there could be room for creaturely freedom, if secondary causation is not genuine causation, and God alone is the one true cause. Indeed, how occasionalism can allow for creaturely moral responsibility? Occasionalism is, then, quite obviously a highly controversial thesis, and one which many theists are keen to resist.

It might be pointed out that such worries concerning causal overdetermination and divine moral impeccability are avoidable if God and worldly entities are assigned separate causal roles.[60] Perhaps God only brings about the existence of *objects*, leaving room for worldly objects to bring about the *events* involving them. This move is, however, too swift. For it simply isn't clear that such a wedge can be driven between objects and events. Take again the case of Bertie and Betty, but instead suppose that Betty's thrusting of the axe is so forceful that poor Bertie ends up decapitated. In this scenario, Betty brings about the existence of two separate objects: the body and the head. Or consider the case of conception – we shall be forced, on this view, to say that God brings about the existence of the child; but presumably any theist wanting to preserve secondary causation will want to grant that the *parents* bring about the child's existence. Of course, there will be rejoinders available here (and likewise for the previous objections), but I do not claim to have shown that any of these problems is decisive,

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[57] No Systematic Causal Overdetermination.

[58] See, for example, Nicholas Malebranche (2007).

[59] Consider the following analogy: imagine that Betty shoots Bertie with a gun, and that the bullet pierces his heart and kills him. In this case it is Betty – and not the gun – who is responsible for the murder; the gun merely providing the circumstances (or the 'occasion') in which Bertie is murdered. The occasionalist's claim is that, likewise, it is really God who is responsible for any causation, with worldly entities simply providing the circumstances on which God can act. (For further examples of this type, see Alfred J. Freddoso (1991)).

[60] Kvanvig and Vander Laan (*ibid.*) explain that such a move could be justified if objects were taken to be ontologically fundamental, and events and states of affairs etc. were construed as derived entities.

merely that the above worries are troubling enough to motivate investigation into alternative accounts of conservation.

In summary, creative conservation accounts face the following difficulties:[61] (i) they threaten the diachronic identity of worldly objects, (ii) they threaten divine moral impeccability, and (iii) they entail either systematic causal overdetermination or occasionalism.

3.2   Against Non-Creative Conservation

Non-creative accounts of conservation are also not without their difficulties. Whereas creative conservation accounts have been said to entail occasionalism, non-creative accounts have sometimes been taken to lead to *Deism*. This is the view that God's activity is restricted to the creation of the universe, and that God remains apart from the world post-creation, leaving it to administer itself through natural laws. (Deism therefore precludes the supernatural aspects of religion (such as revelation), and maintains that human reason alone can settle religious and moral issues.) The complaint is that if God's creative activity is limited to the initial act of bringing the universe into existence, then there will be no room for divine revelation or providential control over what goes on in the world post-creation.[62] There are at least three ways of responding to the charge of Deism. In what follows, I outline these responses and argue that none is satisfactory.

3.2.1 Causal Transitivity

One option is to endorse some kind of causal transitivity principle, such as that if A causes B and B causes implies C, then A causes C. Kvanvig and Vander Laan explain that in this case:[63]

> … if God causes the initial state of the cosmos and everything else that happens is a logical result of this initial creative act, then God also causes the existence of everything else that comes to be, and thus conserves the universe in a most remote way, since it is in virtue of the original creative act that the universe avoids falling into non-being. (*Ibid.*)

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[61] I do not take this list to be exhaustive. There may well be other objections to the view, but the ones outlined are those which I take to be most prevalent in the literature.

[62] One might wonder whether Deism really is entailed by the non-creative models. I think this worry is justified, and I discuss this issue in §2.1.3 below.

[63] Kvanvig and Vander Laan phrase their discussion in terms of a 'closure principle', but I presume that it is more apt to refer to a transitivity principle here. Further, formulation of the principle is that 'if A causes B and B logically implies C, then A causes C'. It's not clear to me, however, why there is a need to invoke *logical* implication here.

However, causal transitivity is highly controversial. There are numerous counterexamples which put pressure on the intuitiveness of this principle. Consider the following from Michael McDermott (1995: 532): 'I give Jones a chest massage, saving his life: without the massage he would have died in minutes. When he recovers, Jones goes to New York, where he eventually meets a violent death. It seems that the massage was a cause of his going to New York, his going to New York was a cause of his death, but the massage was not a cause of his death.' If we are inclined to shy away from the result that, for instance, Jones' massage was a cause of his death, then we ought to deny transitivity. Aside from this, however, non-creative accounts which incorporate causal transitivity – just like the continuous-creation thesis – risks slipping into the grip of occasionalism. Kvanvig and Vander Laan note that occasionalism follows from such an account if: (i) causation is univocal; (ii) divine causation is both complete and irresistible; and (iii) all events occurring post-creation are causally[64] implied by God's initial creative act. For given these, 'everything is [then] the result of the initial creative act of God and in no way the causal result of anything else' (*ibid*).

3.2.2 Weakening Conservation

A second type of response would be to weaken the sense in which God conserves creatures and other contingent entities in existence. Perhaps we could say instead that God does so in virtue of something like divine permission, or decree. Alternatively, and in an even weaker sense, we could say that God conserves the universe merely in the sense that, at any given moment of time, the universe would be destroyed, were God to will it. In this case, conservation could be seen as a kind of *omission*: the universe continues to exist because God does not decide to destroy it. However, as Vander Laan (2006: 172) explains, the problem here is that 'to permit is merely to not intend to prevent – or, better, knowingly not to intend to prevent. God doesn't have to *do* anything to permit an object's continued existence. Permission is entirely negative. This permission can't really be regarded as God's sustaining activity.' Vander Laan does not provide much by way of argument for this claim, so I'll attempt to plug that gap and offer the following reasons for rejecting the idea that conservation is mere omission (i.e. an absence of action):

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[64] Again, since causality seems to be the relevant notion, I have replaced talk of logical implication with causal implication here.

(i) <u>Absence Causation</u>: To begin with, it is highly controversial to think that omissions, and absences more generally, are capable of being causal relata.[65] If causation is a relation, then absences cannot be *nothing at all*, since relations require relata. However, if absences *are* genuine entities, then it seems that they must be negative entities, such as negative properties, negative events, or negative states of affairs. Yet, there are strong reasons to eschew such entities from our ontology. David Armstrong (1978: 23-29), for example, argues that the admission of negative properties would *inter alia* (i) seriously bloat one's ontology, (ii) entail that every particular has the same number of properties, and (iii) mean that different things of which it is true that they are not-F may yet have nothing in common (e.g. one thing may be non-yellow because it is pink, and another because it is purple, but they may bear no resemblance to one another).

(ii) <u>Moral Asymmetry</u>: The picture on which God leaves the universe to run its course and conserves it in virtue of the fact that he simply refrains from destroying it also fails to do justice to the central theistic ideas that God is omnibenevolent and deserving of the highest possible moral praise. On the conservation-as-mere-omission view, God is not actively bringing about any states of affairs or events – ones for which we may be thankful; he is merely failing to do anything to prevent such states of affairs from running their otherwise natural course. Of course, we may think God is deserving of *some* sort of praise in such a case; but any goodness we consider God to have by virtue of failing to be destructive could hardly be fairly considered to be goodness of the *highest* sort.[66]

A more mundane example might help to make the point. Suppose you find yourself on an inflatable life raft with several others. You are the only person on board with a sharp implement – only you had the foresight to bring a penknife! The raft is floating along all well and good, and everyone should make it to shore in a few hours just fine, so long as you don't decide to stab your knife into the side of the boat. You don't, as it happens, sabotage the journey ashore, not being that sort of person. Certainly, then, there's a sense in which the others on board may be thankful to you for your omission, but we'd be hard-pressed to find someone who would consider you to be morally praiseworthy in any deep sense here. Now, suppose again that you are again on board the inflatable life raft with several others, but that this time the raft can only continue to bob along so long as you blow some air into the valve at the side of the boat at regular intervals. Suppose you do. In *this* case, the boat would not

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[65] Deniers of absence causation include David Armstrong (1999), Helen Beebee (2004), and Michael Moore (2009).

[66] Though he might also avoid blame of the worst sort.

carry the others to safety if it were not for your active interventions; hence, a higher form of moral praise seems appropriate. Reflecting again on the former case then, we may well consider it a real stretch of the word 'conserve' to suppose that you are genuinely conserving your fellow passengers throughout the trip.

Indeed, there does seem to be an important and more general asymmetry between the moral status of actions and that of omissions. Most of us would be less ready to find a person morally wanting simply because they failed to pursue a line of action which would have brought about some good than we would a person who *actively prevented* some good which might have otherwise occurred.[67] And the fact that there's a clear asymmetry between actions and omissions when we are considering cases of moral *blame* lends credence to the parallel idea concerning moral *praise*.[68]

I suggest, then, that a picture whereby God conserves the world merely by failing to destroy it is somewhat incongruous with the wider theistic picture. A God who is actively responsible for bringing about good, however, deserves moral praise without question. Such a picture would therefore be preferable.

(iii) <u>Worldly Dependence</u>: Classical theism maintains ST: everything that exists is dependent on God, since it is under God's providential guidance and control.[69] Classical theism simply takes it as given, then, that without divine intervention, the universe would – to take Vallicella's words cited above – 'fall into nothingness'. As a consequence of this, theists take the following counterfactual concerning conservation to be *false*:[70]

> CFC: If, *per impossibile*, God were to forget about the universe (and so play no role in conserving it), then the universe would continue to exist nonetheless.

However, on the view that divine conservation is mere omission, the aforementioned counterfactual would be *true*. So we may set up a simple *modus tollens* argument against the conservation-as-mere-omission view:

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[67] Or actively brought about some harm which otherwise would not have occurred.

[68] For arguments in favour of the existence of moral asymmetries between actions and omissions, see Fischer and Ravizza (1998), and Sartorio (2005).

[69] The complementary thesis is that God enjoys maximal independence; God exists *a se* – independent of anything external to himself.

[70] I am assuming here that theists will want to reject the claim, made within the standard semantics for counterpossibles (due to Lewis (1973)), that counterfactuals with impossible antecedents are trivially true. See Zagzebski (1990), Leftow (1990), and Davis (2006), for discussion of why theists should reject the standard semantics.

[P1]   If conservation-as-mere-omission is true, then CFC is true.

[P2]   CFC is false.

[C]   Conservation-as-mere-omission is false.

Again, the notion that conservation is nothing more than divine omission is at odds with the wider theistic picture and as such ought to be rejected.

3.2.3 Denying the Entailment

A third way for the creative conservationist to respond is to point out that there simply is no entailment from non-creative conservation to Deism. In other words, the non-creative conservationist could make clear that the denial of creative conservation does not preclude direct divine activity (creative or otherwise) at other points in time. For while the charge of Deism is often levelled against non-creative conservation accounts, it is hard to see what might justify it. Certainly, non-creative conservation makes Deism a viable option, but further argument is needed to show that it *requires* it. What the non-creative conservationist ought to do, then, in order to fend off Deism, is to present some positive account of exactly how it is that God conserves things – one that leaves divine intervention in the world post-creation an open possibility. Such an account ought to describe not only what is involved in divine conservation, but also how it is that conservation can occur in such a way that creative conservation, overdetermination, and occasionalism are avoided. Until some explanation of the conservation relation is made available, non-creative accounts risk saying so little that they constitute little more than a promissory note. In §III I consider some relatively recent attempts to address this issue, but argue that none of these is satisfactory. However, in §IV I present my own version of non-creative conservation which fares much better.

What I hope to have shown here is not that non-creative accounts of conservation are necessarily false; rather, that (i)-(iv) demonstrate that non-creative accounts, as standardly understood, are at odds with certain plausible metaphysical claims, and more importantly, a number of central theistic doctrines.

4. Contemporary Alternatives

Noting the numerous problems for both of the standard models of divine conservation, a number of relatively recent attempts have been made to put forward an alternative kind of

model. In this section, I turn to consider three of these. The first is due to Philip Quinn (1983, 1998), and the second and third are due to David Vander Laan (2006).

4.1 Quinn's Account

Distancing himself from a causal account of creative conservation, Quinn (*ibid.*) appeals instead to ontological dependence. For him, the crucial relation involved in divine conservation is that of *bringing about*, where (the relata are states of affairs). According to Quinn, every contingent individual at every instant at which it exists does so due to divine volition. In his view, there is nothing more to creation or conservation than what is presented in the following axiom (1988: 54):

> Q. Necessarily, for all x and t, if x exists at t, God willing that x exists at t brings about x existing at t.[71]

Quinn admits that he does not have a firm grasp, or anything 'amounting to a clear and distinct idea', of what the relation of bringing about employed here amounts to. However, he does attempt to characterise the relation with the following features: (i) *totality* – that whatever does the bringing about is the total cause of what is brought about, (ii) *exclusivity* – that whatever does the bringing about is the sole cause, (iii) *activity* – that whatever does the bringing about does so in virtue of the exercise of active power, (iv) *immediacy* – that whatever does the bringing about does so directly and without mediation, and (v) *necessity* – that whatever does the bringing about (in some sense) necessitates what is brought about (*ibid.*).

In addition to axiom Q, Quinn also stipulates the relevant definitions for what it is for God to create, and for God to conserve:

> D5. At t God creates x = df. God willing that x exists at t brings about x existing at t, and there is no t' prior to t such that x exists at t'.
>
> D6. God creates x = df. For some t, at t God creates x.
>
> D7. At t God conserves x = def. God willing that x exists at t brings about x existing at t, and there is some t' prior to t such that x exists at t'.
>
> D8. God conserves x = df. For all x, if x is contingent, then God conserves x.
> (1993: 59-61)

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[71] Quinn terms this axiom 'A'.

What is important to note here is that the definitions of creation and conservation differ only in one respect: conservation requires that the thing conserved must have existed at some prior time, whereas creation does not. For Quinn, then, there is a single univocal metaphysical relation involved in divine creation and conservation. Whether, at some moment, God can be said to be conserving or creating some x depends on the contingent matter of fact concerning whether x has existed at some prior time.[72]

With this in hand, it should be relatively clear to see why, on the face of it, Quinn's account might look like it avoids the pitfalls of the standard models. To begin with, one could claim that, because it construes the bringing about relation to be exclusive, the model avoids the threat of overdetermination which troubles creative conservation. Further, one might also think that since *creation ex nihilo* has been replaced with the (rather more opaque) ontological dependence relation of bringing about, the view also avoids the threat of ruling out the genuine diachronic identity of worldly objects. Further still, one could argue that because it considers the bringing about relation to be active, Quinn's account also avoids the threat of Deism, and hence, also problems (i) – (iv) which I pressed against the conservation-as-mere-omission view.

Despite promising appearances, however, Quinn's account is unsuccessful. There are at least two reasons for this. First, it simply isn't obvious why the bringing about relation is a non-causal relation. Second, the model collapses into a version of creative conservation.[73] Given that the bringing about relation is exclusive, immediate, and necessary, and given that the very same relation is involved in creating as in bringing about, conservation simply *is* creation, and consequently, we slip back into the grips of occasionalism: there is no room for secondary causation; IC comes out false; and we lose the diachronic identity of worldly objects.[74] The fact that God brings it about that creature C exists at t_1, and also brings it about that C exists at t_2, together with the fact that bringing about is necessary, rules out that C's existence at t_2 is caused by the temporal stage of C at t_1. Indeed, how could the bringing about relation be *anything other than creation ex nihilo*, given that on this model conservation *is* creation, and that creation does not involve producing entities from pre-existent parts or materials? It simply isn't clear. Consequently, Quinn's model is no more successful than the creative conservation account.

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[72] Though, *pace* Quinn, one might well think that given its dependence on God's will, this won't be contingent in any deep sense.

[73] This objection has also been made by Kvanvig and Vander Laan (*ibid.*).

[74] Why not also the other horn of the dilemma outlined in §2? Because the exclusivity of the bringing about relation rules out overdetermination.

4.2 Vander Laan's Joint Sufficiency Model

Vander Laan (2006) has also advanced two alternative models to the two standard views on conservation outlined above. Recognising that creative conservation threatens, *inter alia*, the diachronic identity of objects, but that non-creative accounts risk undermining divine providence, he suggests two models which take conservation to be a cooperative exercise between creature and creator.

The first suggestion is that conservation be recast as a *joint* causal contribution from God and his created objects, such that 'God's causal contribution and the creature's causal contribution are *jointly sufficient* but *individually insufficient* for the continued existence of the creature.' (2006: 174) However, as Vander Laan notes, this proposal runs into difficulty when coupled with the theistic belief that the divine will is necessarily efficacious. Since (in parallel fashion to Quinn's account), if God's willings are necessarily efficacious, then all secondary causation will be systematically overdetermined; there will be no need whatsoever for causal contribution on the part of any creature. Moreover, IC could not account for the diachronic identity of any material object or creature: the fact that God wills that creature C exists at t_1, and also wills that C exists at t_2, coupled with the fact that the divine will is necessarily efficacious, will rule out that C's existence at t_2 is caused by the temporal stage of C at t_1.

In order to avoid this problem, Vander Laan suggests that we suppose that God does not act by willing the later existence of the creature – rather, by willing the following type of conditional: C exists at t_2 if it existed with certain causal powers at t_1. He states: 'In this case God's sustaining act is not by itself sufficient for the creature's existence at t_2, since it is possible that the creature not exist at t_1 and that God act in the same way without bringing about the creature's existence at t_2 (2006: 173). This suggestion allows that C play a (non-overdetermining, or non-superfluous) causal role in its own continued existence, despite the fact that God's willing is necessarily efficacious.

Vander Laan anticipates the objection that this kind of model ought not to really count as genuinely cooperative if it's the case – as it presumably would be on this view – that C first came into existence *solely* because of a divine willing. However, he responds that what really matters here is counterfactual dependence. The creature's later existence counterfactually depends on *both* the divine will to sustain, *and* the creature's earlier existence, given the following: (1) if God hadn't willed to sustain C, then C would not have existed at the later time, and (2) if C hadn't existed at the earlier time, then C would not have existed at the later time. He concludes, therefore, that 'joint-sufficiency theories can be co-operative and give a non-trivial sense to the claim that God sustains objects in existence.' (*Ibid.*)

Pace Vander Laan, I do not think this kind of joint-sufficiency model ought to be accepted. This is due to the fact that the construal of conservation as *mere* counterfactual dependence is in tension with the claim that conservation is a powerful activity. As was argued in §2, an account of divine conservation ought to construe the relevant relation to be a genuinely powerful *activity* in order to respect divine moral impeccability and the worldly dependence thesis. However, if conservation is *mere* counterfactual dependence, it is hard to see what room there is for any genuine divine powerful activity here. The reason for this is as follows. Counterfactual conditions can be true in cases where there is no exercise of power. Consider the following examples from Jaegwon Kim (1973, 570-1): 'if yesterday had not been Monday, then today would not have been Tuesday', and 'if my sister had not given birth at t, I would not have become an uncle at t'. In order for Vander Laan's proposal to respect the intuition that conservation is a powerful activity, it must differentiate the relevant divine counterfactuals from the kind presented by Kim. But in this case, Vander Laan faces a dilemma. On the one hand, if the relevant divine counterfactuals do not refer to necessary connections or powerful properties, then there is no room for genuinely powerful divine conservation here. On the other hand, if the relevant truthmakers are forces, powerful properties and the like, then causation will, *contra* Vander Laan, be an intrinsic relation and not *mere* counterfactual dependence.

So, it seems that any theist who wishes to adopt this joint-sufficiency model must reject the traditional understanding of divine power and action. But, given the arguments presented in favour of taking conservation to involve powerful activity, this makes the joint-sufficiency model highly unsatisfactory. I think, therefore, it would be better to look to an alternative model of divine conservation.

4.3 Vander Laan's Co-operative Model

Vander Laan's second proposal is to say, in contrast with the above view, that God's sustaining action is indeed sufficient for a creature to continue in existence over time, but since the immanent-causation thesis (IC) is true, God's willings *require* a creature's earlier existence to bring about its later existence. These suggested kinds of theories he terms 'co-operative divine sufficiency theories' (*ibid*: 173). Vander Laan's suggestion is to say that 'the act by which God sustains a creature includes the causal contribution of the creature; God brings about the creature's act.' (*ibid*.). He states that if we were to express such an act as a divine decree it might look something like the following: 'Let the existence of creature C at t_1 cause the existence of C at t_2'.

Unlike the joint sufficiency theory, the divine decree proposed on this co-operative model *would* entail the persistence of a creature over time. According to Vander Laan, this theory is cooperative because the creature plays a necessary causal role in its own diachronic existence because of the truth of IC. Further, because 'God's act of will is also necessary for the creature's continued existence … it's [also] clear that God sustains creation.' (*ibid*: 174).

On the face of it, the co-operative model looks successful. However, despite appearances, the account faces what is by now the familiar dilemma which has, on one horn, systematic causal overdetermination, and on the other, occasionalism. Why is this? Because the intended result of the divine willing is that C exists at t_2. But the effect of C existing at t_1 is *also* that C exists at t_2. Simply because God achieves that result *via C's* existence at t_1 doesn't seem enough to ensure that the creature itself plays a causal role. On the co-operative model, God's willing is sufficient for C's existence at t_2, and it is this fact that invites the dilemma.

4.4 Desiderata for a Model of Conservation

Where have we got to? It was concluded, in §2, that the creative conservation and non-creative conservation views, as traditionally conceived, are incongruous with the wider theistic picture, and stand in tension with certain metaphysical theses regarding causation. The contemporary accounts of conservation provided by Quinn and Vander Laan, however, fare no better in avoiding these *very same* issues. However, the above discussion has usefully provided us with a set of desiderata that a satisfactory model of conservation ought to meet:

1. The immanent causation thesis (IC).
2. Diachronic identity of worldly objects.
3. Genuine secondary causation (i.e. anti-occasionalism).
4. Powerful divine agency (i.e. anti-Deism).
5. No systematic causal overdetermination (NSCO, i.e. completeness and irresistibility of divine action).

In what follows, I present a non-creative model of divine conservation which incorporates spacetime substantivalism in such a way that it side-steps the problems associated with the traditional views whilst also meeting desiderata (1) - (5).

5. Spacetime Substantivalism *&* Conservation

Substantivalism with respect to spacetime is the view that spacetime is a fundamental entity: it is basic, ultimate, and irreducible (Schaffer, 2009: 131).[75] Substantivalism maintains that spacetime is an entity which exists independently of its contents, and which is 'properly described as having its own properties, over and above the properties of any material things that may occupy parts of it.' (Hoefer, 1996: 5) Substantivalism is to be contrasted with relationism, according to which spacetime is not an entity in its own right, nor a thing which exists independently of its contents; rather, spacetime is nothing over and above the sum of relations which exist between the objects and events which existing within it. In other words, relationism is the view that there are simply objects and events, and the spatiotemporal relations between them.

The account of conservation being proposed here is one which incorporates spacetime substantivalism: call this model the substantival model of conservation. The model is as follows. There is an initial act of creation in which God creates, *ex nihilo*, initial matter, and the (substantival) spacetime points. In doing so, he sets up the initial conditions required for the universe to persist. God then sustains the world in existence thereafter in virtue of creating the spacetime points. In creating the spatiotemporal manifold, God thereby creates the background conditions necessary for worldly entities to exist post-creation. Objects then may be seen to persist in virtue of two facts: first, the fact that God directly brings about (i.e. creates ex nihilo) the existence of the spacetime points which are required for worldly objects to occupy, and second, the fact that worldly objects bear causal relations to their past temporal stages, i.e. in virtue of IC.

The distinction between divine creation and conservation is, then, that the former is a *direct* causal relation – creation *ex nihilo*, whereas the latter is an *indirect* causal relation involving two components: (i) IC of material objects, and (ii) *creation ex nihilo* of spacetime points. Figure 1, below, attempts to present this model:[76]

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[75] I do not take a stance on the debate as to whether or not space and time are two distinct entities, or aspects of the one entity, spacetime. What follows should have no bearing on this debate, and so should be compatible with either position.

[76] This model builds on the one presented by Vander Laan (*ibid*: 161).
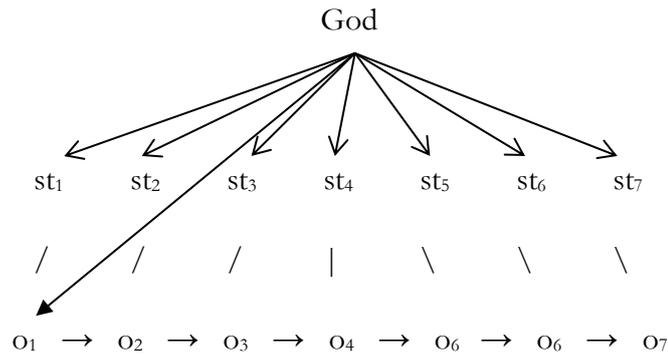
Figure 1: the substantival model of conservation

The diagram is intended to demonstrate that, on this model, God is *directly* causally responsible for laying down the relevant background conditions required for the diachronic identity of objects, and moreover, for IC to be possible. God is indirectly responsible for any object, O's, existence over time: for any time, t_n, (which is not the first moment of time)[77] at which O exists, O will exist as a direct causal result of the fact that it existed at t_{n-1}.

God is, therefore, doing something genuinely creative in conserving the world (i.e. creating the spacetime points), but because he is not continuously creating worldly objects ex nihilo, this is not a creative conservation account. Rather, this is a *non*-creative joint-sufficiency model, akin to the one proposed by Vander Laan (outlined in §3.2). However, there are important differences between the substantivalist modal and the extant joint-sufficiency and non-creative accounts, which mean that the substantivalist model does not encounter their problems. It is significant here that God and contingent material objects play *different* causal roles, as is secured by the following facts:

A. The direct causal result of *God's* action is the creation (ex nihilo) of the spacetime points.

B. The direct causal result of an *object's* existence at t_a is its existence at t_2.

C. The indirect result of God's action is the conservation of objects.

It is in virtue of facts A-C that the substantival account of conservation avoids the problems of its rivals and meets desiderata 1-5. First, the model satisfies the requirement, 4, that there be genuinely powerful divine agency, i.e. that it not entail Deism. This is because in order to

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[77] Under this view, God is causally responsible for causing an object's existence at the first moment of time. I take this to be unproblematic, since it is simply a statement of the creation thesis.

conserve, God creates each spacetime point ex nihilo. However, since God is not continuously creating each object, but, instead, creating the background conditions necessary for an object to persist, this does not rule out IC. Once God has created initial matter and the spatiotemporal manifold, each object's existence at some time will be the cause of its existence at some later time. The model therefore satisfies requirement 1, that it allow for IC. Since the model secures IC, the model allows for the diachronic identity of worldly objects; thus satisfying 2. Desideratum 4, the requirement for NSCO, is met because, as (A) and (B) state, God and worldly objects play different causal roles. Since worldly causation is not overdetermined, this in turn satisfies the requirement, 3, that there be secondary causation. And this can be true despite the fact that the divine will is, to use Quinn's terms, necessary, active, and exclusive.

6. Objections & Replies

I have argued that that this non-creative substantival account provides a coherent model of conservation, as well as successfully meeting each of the required desiderata, unlike each of the extant alternatives. However, one may nonetheless have some lingering concerns about the account. Below I attempt to allay these worries.

6.1   An *Ad Hoc* Move

An initial objection to my account might be that invoking substantivalism in order to make sense of divine conservation is an unacceptably *ad hoc* manoeuvre. There are two lines of response here. Firstly, there are a number of well-known independent arguments for the truth of spacetime substantivalism. Second, it may be pointed out that analogous moves are made in other theistic debates, which are deemed to be acceptable.

To begin with the independent arguments, there is, for example, the argument from Kant (1768) that substantival space is necessary in order to make sense of incongruent counterparts. Two objects are counterparts when they are mirror images of each other (and so each of the relations of distance and angle among each one's parts is identical); two objects are *incongruent* counterparts when they exhibit 'chirality'. Chiral objects lack a plane of symmetry and cannot be made to coincide with their counterparts through any series of continuous rigid motions. Your hands are a prime example of a pair of objects which are incongruent counterparts: your left one is the mirror image of your right (and vice-versa), and the two are distinguishable in the sense that no series of movements which preserve the shape of each one could bring one into coincidence with the other. Kant asks us to imagine a lone hand – i.e. one

detached from any body – existing in a world where no other object is present. The hand, says Kant, would have to have a particular handedness; it would, that is, of necessity be determinately either a left or a right hand. Yet, Kant contends, the relationist is unable to account for the particular handedness of the hand (whatever it may be) in this scenario. This is because (a) left and right hands agree with respect to all of their *internal* relational (or intrinsic) properties (e.g., the distance between the thumb and the index finger, the width of palm, the length of little finger etc. is the same in each case); and (b) the two (in this scenario) are in perfect agreement with respect to all of the *extrinsic* properties (since, by hypothesis, we have an isolated hand in existence). So the hand has the very same external and internal relational and non-relational properties its counterpart would have. Yet, if this is true – if there is nothing internal to or external to the hand that is different in each case – what could be the thing determining the particular handedness of the hand? Nothing, seemingly. Or at least not on the spatiotemporal relationist picture. For on this picture we fail to have any ontologically independent entity that is spacetime. But if we *did* have such an entity, says Kant, then we have something the (otherwise lone) hand could bear relations to, and those relations could bestow a particular handedness on the hand. Kant's argument, then, is that we ought to posit absolute space in order to explain what determines the particular handedness of chiral objects.[78]

A second, independent argument for substantival spacetime comes from Newton's famous bucket experiment (presented in Book 1 of his *Principia* (1729)). Newton asks us to compare, first, a bucket of water which is hanging from a rope and which is spinning about the rope's axis, such that the bucket is spinning in relation to the water it contains, and second, a bucket of water which is hanging from a rope which is rotating along with the water it contains. In the former case the surface of the water will remain flat, due to the Earth's gravitational field. In the latter case, however, the surface of the water will be concave. The conclusion to be drawn from the experiment is that the reason the surface of the water in the second case is concave is that the water is rotating *with respect to something other than the bucket*. The water is stationary relative to the bucket, and so must be moving relative to its surroundings, i.e. to *space*. So, we have good reason here to think that spacetime must be an entity in its own right – reason, that is, for taking spacetime to be substantival.

More recent arguments for substantivalism have also been given. Graham Nerlich, for example, argues that once it is recognised that space can have non-Euclidean geometries, we can see how the shape of space makes a difference to the behaviour of objects. Leibniz argued

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[78] For further discussion of this see Graham Nerlich (1973: 37) and Robin Le Poidevin (2003: 69).

that object-space relations make no difference to object-object relations: there would be no discernible change in the universe if we shifted it ten metres to the right. However, Nerlich points out that this only follows if space is Euclidean. If space is *non*-Euclidean, though, it *will* make a difference to the behaviour and shape of objects. To illustrate, Nerlich presents the example of a two-dimensional triangle placed on the surface of a sphere and explains that 'if [the] triangle on the sphere is doubled in size overnight, it changes shape. Not only is its shape different; it now has a shape it could not have had yesterday' (*ibid*: 173). It's also the case that any object moving through a space of varying curvature will undergo distortions in shape. Just as with Kant's example, only by positing substantival spacetime can we make sense of this, and so we have independent reason for endorsing substantivalism. I do not, of course, take any of these arguments to be decisively in favour of substantival spacetime; I mean only to illustrate that there are persuasive, independently-motivated, widely-accepted arguments in favour of substantivalism. I maintain, therefore, that to invoke substantivalism in order to make sense of divine conservation is not to make an unacceptably *ad hoc* manoeuvre.

The second thing to say in response to this objection is that there is an analogy to be made here with the debate over God's relation to time. The question in *this* debate is how God can bear various relations to the spatiotemporal world, if, as is traditionally maintained, he exists outside of time (and space).[79] For example, if time flows, then what time it is *now* (i.e. which time is objectively present) is constantly changing. But if change implies time, how can God know which time it is now? One move, often made, in order to deal with such questions, is for the theist to appeal to the B-theoretic view of time. Now, whilst many views of time (for example, presentism, growing block theory, and moving spotlight theory) *do* maintain that there is an objective passage, or 'flow' of time, the B-theory does not. According to the B-theorist, there is no mind-independent flow of time, and no ontologically privileged present; consequently, the passage of time is nothing more than a feature of our temporal experience. How does the B-theory aid the theist? It does so because, if there is no objective flow of time, and no privileged present, then there is no non-subjective fact of the matter about *what time is now*. Given this, there is no sense in asking how it is that God can know what time is (objectively) now. The question dissolves on the B-theoretic picture. Yet, the theist who adopts the B-theory is not charged with making an *ad hoc* move here. This is because the B-theory is an independently well-motivated, and respectable metaphysical position with regards to the nature of time. Likewise, I argue, the theist who adopts substantivalism in their model of

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[79] Leaving aside, for the sake of argument, any discussion of the incarnation.

conservation is not making an *ad hoc* move because substantivalism is an *independently well-motivated, and respectable metaphysical position with regards to the ontology of space time.*

6.2 The Threat of Super-Substantivalism

A further objection to the substantival model runs as follows: it is true that spacetime is a substance, but it is also true that material objects are to be *identified with* spacetime regions. That is, perhaps spacetime and material objects are not two distinct types of substance. This is the view of super-substantivalism.[80] Yet, if material objects simply are collections of spacetime points (or spacetime regions) then it could not be maintained – *contra* my view – that there is a distinction to be made between God's sustaining relation between (i) material objects, and (ii) spacetime points. In short, this view rules out the possibility of super-substantivalism.

My reply here is short and swift. It is indeed correct that the substantival model of conservation is ruled out by super-substantivalism. However, it is also true that the substantival model would be ruled out by relationism. Every metaphysical position rules out certain others, and these are bullets I am willing to bite. In any case, I should make it clear that what I am arguing for here is a *ceteris paribus* type position: *so long as substantivalism is on the table*, my account is the most plausible description of conservation available. Of course, if conclusive proof for the truth of super-substantivalism arises, the theist should go back to the drawing board.

6.3 Faux-Substantivalism

It might also be objected that the model I have proposed is not a genuinely substantivalist account of spacetime. This is because substantivalism is characterised as the view that maintains (i) that spacetime exists independently of its contents, (ii) that spacetime is a substance, and (iii) that spacetime is a fundamental entity that is ontologically independent. Clearly, this third claim is incompatible with the view that spacetime points must be held in existence by divine will; they are ontologically dependent on God's bringing them about. Given this, it might be claimed, the view cannot be classed as a genuine form of substantivalism.

This objection may also be dealt with fairly swiftly, however. Whilst it may be true that spacetime points, in order to be considered absolute, must exist independently of their contents, it is not true that they must exist independently of any entity which might exist beyond (i.e. outside of) them. Indeed, what is being presented here is a *theistic* metaphysical

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[80] Super-substantivalism is also referred to by e.g. Jonathan Schaffer (2009) as monistic substantivalism.

position; given that we have granted the truth of divine providence and conservation (along with divine aseity) it will not be true that *any* type of entity enjoys total ontological independence, other than God. This is just to say that the third criterion cannot be taken to express a necessary condition for substantivalism, given the truth of theism. Nor may it be objected that what I have presented here is actually a relationist view in substantival clothing. The thought might be that spacetime only exists insofar as God bears certain relations to created entities, and so spacetime, on this view, turns out to be a relational entity after all. However, that thought would be misguided. On the assumption that God is non-spatiotemporal, the spatiotemporal manifold cannot be reduced to the spatiotemporal relations between God and spacetime points because *there simply are no such relations.*

7. Conclusion

I began with a discussion of the traditional debate over how divine conservation ought to be understood, pointing out the respective merits and demerits of the two main positions taken in this debate. I also noted a number of views which aim to resolve the dispute between these two camps, and argued that these fare little better than their traditional rivals. However, I have argued that the adoption of spacetime substantivalism provides a mechanism by which divine conservation may be understood to be active and necessitating without thereby entailing either occasionalism or overdetermination, and consequently as providing a metaphysical picture in which there can be diachronic identity of material objects as well as secondary causation. The overall conclusion of this chapter, therefore, is that divine conservation is best accounted for under the substantival model proposed herein.

IV. DIVINE CAUSATION & TIME

1. Introduction

Causation is often understood in inherently temporal terms. Consider, for example, the following, which are commonly held intuitions associated with this notion: if C causes E, then there must be some times at which C and E occur; causes are always temporally prior to their effects; if C is an unmediated cause of E, then there must be no temporal gap between C and E. This last idea – that if a causal relation obtains between C and E, then C and E must be temporally contiguous – is commonly referred to as the Principle of Temporal Locality (or simply 'Locality'). Marc Lange presents this principle more formally as follows:

> Locality[81]: For any event E and for any finite temporal interval $\tau > 0$, no matter how short, there is a complete set of E's causes such that for each event C (a cause) in this set, there is a moment at which it occurs that is separated by an interval no greater than τ from a moment at which E occurs. (2002: 13)

What Locality rules out, then, is the possibility of unmediated action at a temporal distance. Since Locality stipulates that causes and their direct[82] effects must be spatiotemporally contiguous with each other, it follows *ipso facto* that causes and effects must be temporally related. What Locality entails – and what the other intuitions outlined above are characteristic of – is the more general thesis that any causal relation necessarily involves temporality. Call this thesis: Causation Entails Temporality (CET for short). It is due to the prevalence of commitment to Locality, and the other theses which imply CET, that it is held that, for example, abstracta necessarily cannot enter into causal relations. (Likewise, in quantum mechanics, there is much controversy over the notion of quantum entanglement. The idea that two (spatially separated) particles could causally interact without any associated time lapse (i.e.

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[81] Locality is my shorthand for referring to what Lange terms *the temporal locality principle*.

[82] I mean by 'direct cause' those causes which are unmediated, or those which are proximate to their effects.

that such an interaction could be instantaneous) is considered by many to be 'spooky' or absurd.[83]

However, neither Locality, nor its correlate CET, can be held in conjunction with the following two central classical theistic doctrines: (i) Divine Atemporality: i.e., the claim that God transcends space and time and so bears no spatiotemporal relations to the world; (ii) Divine Causality, i.e., the thesis that God is causally efficacious and creates, sustains, and intervenes in worldly affairs. It follows from Divine Atemporality and Divine Causality that divine causes and causal relations must be *a*temporal in kind. However, divine causal relations cannot be atemporal if either Locality or CET is true. Hence, both Locality and CET form an inconsistent triad with Divine Atemporality and Divine Causality.

The above only spells trouble for classical theism, however, if there are solid grounds for accepting CET and Locality in the first place. Exploring whether such grounds exist is the task of this chapter, which will be divided into two parts. The first considers Locality: §2 begins by outlining an argument advanced by Brian Leftow, that divine atemporal causation is co-tenable with Locality after all, and shows it to be misguided. §3 then argues that we have good reason to think that causation by abstracta and absences is possible, and that this provides theists with reasonable grounds for rejecting Locality. The second half of the chapter focusses on the CET thesis: §4 outlines what I take to be the most plausible reasons for endorsing it, and §5 argues that each of these is unconvincing.

2. Leftow's Zero-Time Relation & Locality

As we have seen, CET forms an inconsistent triad with the doctrines of Divine Causality and Divine Atemporality. Therefore, in order to defend Divine Causality, the theist should look to reject CET. Since adherence to Locality is one reason for endorsing CET (and moreover, since Locality itself is problematic for Divine Causality), the theist should look to reject the thesis. Or so one might think. Leftow, in warning the theist off such a line of dispute, argues that the conflict between Locality and Divine Atemporality is, in fact, merely apparent. In order to show why this is so, he begins by presenting what he calls the Zero Thesis: the distance between God and every spatiotemporal entity is zero.[84] As Leftow takes it, if God is atemporal, then God is at no distance from spatiotemporal entities. He reasons that:

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[83] For discussion, see French (2005) and Fine (2013).

[84] Leftow actually presents the Zero thesis as 'the claim that the distance between God and any *spatial* creature is zero.' (Emphasis added) (*Ibid*: 222) However, whilst the zero thesis is couched in terms of spatial relations, it is reasonable to assume that Leftow would be equally happy to endorse the Zero thesis with respect to temporal

…[Locality] require[s] that a cause's action be simultaneous with its effect's occurrence or (read more loosely) that there be no temporal gap between the action of the cause and the inception of its effect. But … if God is not in time, there can be no temporal gap between God's action and His temporal effects' occurrence, and so it would seem that He qualifies as temporally contiguous with His effects… (*Ibid*: 190).

According to Leftow, then, what it is for an object to bear no temporal relations is for that object (if it is a cause) to be *immediately present* to its effects. Thus, Leftow asserts that '…it follows that the *very denial* that God is in time or space entails that if He is a cause, He is a cause somehow immediately present to all of His spatiotemporal effects.'[85] (*Ibid*: 191)

Putting aside, for the time being, Leftow's controversial suggestion that Locality might require causes to be *simultaneous* with their effects, let us focus on his central idea that atemporal causes, such as God, qualify as *temporally contiguous* with their effects. If Leftow's reasoning is sound then Locality would not be incompatible with Divine Causality in any way; in fact, divine atemporal causation would necessarily satisfy Locality.

Leftow anticipates a *reductio*-type response to the Zero Thesis.[86] If the Zero Thesis is true then any abstract object would also be spatiotemporally contiguous with every spatiotemporal object: '[b]y the same token, there is no space between the color yellow and spatial things. Are we to conclude that these too are spatially contiguous?' (*Ibid*: 225). Notwithstanding the fact that Leftow is actually content to accept this result, such a *reductio* of the Zero Thesis does not identify where Leftow's reasoning has gone wrong. So what, then, is the source of the error? My contention is that it lies in Leftow's having made a category mistake.[87] The reason for this being that if an entity is non-temporal, then it *ipso facto* bears no temporal relations and instantiates no temporal properties whatsoever. Yet, if an object can bear no temporal relations or properties, then it cannot properly be said to be temporally contiguous or immediately present with anything.

As with the previous objection, Leftow does foresee that the Zero Thesis could provoke this kind of criticism, but he finds it wanting. He considers that 'the Zero Thesis is problematic only if a zero distance is a positive distance,' and further, that 'It is true and intelligible that necessarily, there is no positive (i.e. non-zero) distance between God and any spatial [/temporal] thing.' (*Ibid*: 226).

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relations. This is, given that, when discussing the notion of causes being 'directly present' to their effects, he claims that this could also be '[r]ead as concerning time rather than space'. (*Ibid*: 190) Further, there seems no good reason to apply the Zero thesis to one type of dimension and not another.

[85] Emphasis added.

[86] Though, as I will explain shortly, Leftow does not consider this reduction to be successful.

[87] This objection has also been made by William Lane Craig (1994).

However, we may leave aside Leftow's contention that the Zero Thesis and the propositions it entails are intelligible and formulable in such a way as to avoid any semantic error. The deeper issue is that Leftow makes an illegitimate inference from:

ZD1[88]: It is not the case that there's a non-zero distance between God and the world.

to:

ZD2: There's a distance between God and the world and it is not the case that it is non-zero.

ZD1 is true, given that we are working with a non-temporal conception of divine existence. However, one cannot move from a claim such as this, where the negation takes wide-scope, to a claim such as ZD2, where the negation takes narrow-scope. Yet, if the Zero thesis is to be understood as a non-positive distance, it is ZD2 which is required, since ZD2, but not ZD1, entails the Zero Thesis. Problematically, however, ZD2 commits a category mistake. Since, while Leftow is correct to claim that there is no positive distance between any atemporal entity (e.g. God) and any spatiotemporal being, whenever there is a lack of positive distance between two objects, there will be two possible explanations for this. It could be that (i) one or more of the objects lacks any temporal properties, or it may be that (ii) the relevant objects are temporally contiguous. Clearly in the case where we are dealing with the abstract or divine, the explanation is of the first type, not the second; there is no positive distance between God and worldly entities precisely because there are no distance relations *tout court* which God may stand in. The Zero Thesis is false because it predicates of an atemporal being the type of property that only a temporal entity could bear. Moreover, what this tells us is that a fully comprehensive statement of Locality ought to include the claim that direct causes and their effects must be spatiotemporally contiguous, (*à la* Lange's earlier definition) rather than being given the looser formulation (*à la* Leftow) that causally related entities must bear no positive temporal distance relations to each other.

Given that Locality and divine atemporality cannot be reconciled in this way, it is necessary to consider what else can be said in the theist's defence. In the following section I examine whether theists have any other resources at their disposal which could help them reject Locality.

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[88] ZD1 and ZD2 are my own terms which denote Zero Distance 1 and Zero Distance 2, respectively.

3. Causation by Abstracta *&* Absences

Two possible types of entity provide potential counter-examples to Locality (and CET): (i) causally efficacious abstract objects (abstracta); (ii) causally efficacious absences. The possibility of such entities will be considered below.

3.1   Abstracta *&* Absences

Absences

Amongst the putative paradigm cases of causation are those which involve negative causation; instances of causal relations which have absences, omissions, lacks, etc., as one or more of their relata. Folk intuition and common usage would class the following statements expressing such relations as truth-apt reports of genuinely causal interactions:

(A)   The absence of serotonin caused his depression.

(B)   His eating too many sweets caused a hole to develop in his tooth.

(C)   Her pressing the button brought about the absence of an inhibiting shield that had been preventing the current from triggering the explosion.

Examples such as these demonstrate the apparent fact that absences and omissions are intuitively taken as capable of standing on either side of the causal relation; by acting as causes, as in case (A); by occurring as effects, as in (B); or by serving as causal intermediaries, as evidenced in (C).

Jonathan Shaffer (2004) argues that, aside from its being prevalent within everyday folk usage, negative causation is also required by the most useful theoretical applications of causation, e.g. within causal theories of reference, perception, and decision-making. In taking the former of these as a case in point, Shaffer explains that:

> … the reference of a name is not a matter of what description a speaker would associate with the name but, rather, of the causal chain by which the name was produced, transmitted, and ultimately entered into the speaker's lexicon. It should be obvious that this transmission process is indifferent to positive versus negative causation. If a name is printed in a book, then its reference may be transmitted thereby, whichever way the printing press is wired. (*Ibid*: 201)

Schaffer's point is that one can discover the referent of a name by tracing a causal chain back to its originating point, regardless of whether or not that chain includes a transmission via disconnection, release, removal, switching-off, or any other kind of negative entity. In addition to its theoretical usage, Schaffer argues that 'negative causation is supported by all the central conceptual connotations of causation' (*ibid*: 203). The idea is that, in exactly the same way that standard positive causal claims (such as 'the opening of the window caused the temperature to drop', or 'the scoring of the goal caused the crowd to cheer') can be given a counterfactual analysis, a statistical analysis, and used in explanation, so too can negative ones. As further evidence of the ubiquity of negative causation, Shaffer points out that negative causation is both recognised and accepted within scientific practice. Biologists maintain, for instance, that what causes scurvy is a lack of vitamin C; and chemists, for example, explain acid-base reactions[89] as involving the displacement of a proton from the base. (*Ibid*: 202) Given each of these features, Shaffer submits that 'no theory … dismissive [of negative causation] deserves to be considered a theory of causation.' (*Ibid*: 205)

There is a debate to be had over how absences ought to rightly be characterised. One might think that absences and omissions should be identified with regions of spacetime (perhaps as Davidsonian events), or as negative properties, for example. However, there are well-known difficulties with thinking that absences and omissions can be given precise spatiotemporal locations. As Sara Bernstein puts it, 'there is no unique reduction base for an omission' (2015: 209). Suppose Buridan's Ass (let's call him Don Key) is stood equidistant to two bales of hay, and that in order to not starve, he must make a decision about which hay bale to walk to and eat. Suppose that it would take 30 seconds for Don to make the decision, and that he has had the past week to make the decision. Since he has failed to make a decision, he starves. Which 30 second period (i.e. absence of decision) in the past week should we identify with the cause of Don's starvation? It seems we could pick any; no period seems a better candidate than any other. Given this, it's not clear how we are supposed to identify the locations of the various absences.

There will, of course, be various moves to make here. Perhaps the absences should be identified with the disjunction of potential reduction bases, or even their conjunction. However, given that many would find disjunctive/conjunctive causes hard to stomach, I would argue that a better option would be to take (at least some) negative causes to be non-

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[89] Where an acid and base come together to produce a salt.

spatiotemporal. That is, to take negative causes (and effects) to be abstract entities. [90] In adopting such a position, one would no longer be left with these troubling identification issues, since no absence would need to be identified with any particular spatiotemporal region(s).

If Shaffer is right, then we've good reason to think that negative causation is ubiquitous and indispensable, and therefore that negative causation is genuine causation. However, as we've seen, a major implication of admitting (abstract) negative causes and effects amongst the set of genuinely causal relata is that it undermines Locality. If negative causation is genuine causation, then there are theistically-neutral grounds from which to reject Locality. Given this, divine atemporal causation is less objectionable than some would have it, given the kind of causation which Shaffer and others take to be undeniable and indispensable.

We have here a tentative conclusion: we have reasons for thinking that absences are causally efficacious, and that the most plausible account of absence causation would characterise absences as a type of abstract entity. The question to be answered, then, is: *Can abstracta be genuinely causal?* If the answer is 'yes', then Locality must be false.

Abstracta

Abstracta are to be contrasted with concrete objects (concreta). Whilst the latter category includes familiar everyday objects such as queens, quails, and quicksand, the former includes less familiar entities such as Platonistic universals, propositions, sets, and numbers. However, precisely how the distinction between these two categories should be drawn is very much up for debate; a number of characterisations pervade the literature (see, e.g., Hale, 1986 and Rosen, 2014). Following Susan Hale (1986: 86-7), we could, for example, use one of the following to characterise the concrete/abstract divide: (a) concreta are in spacetime, and abstracta are not; (b) abstracta cannot participate in causal networks whereas concreta can; (c) abstracta only have relational properties, whereas concreta have intrinsic properties; (d) abstracta are types, and concreta are tokens; etc.[91] However, so long as (b) is not adopted, and abstracta are not *defined* as those objects which are *a*causal – so that causation by abstracta is

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[90] Of course, construing absences as abstracta now means that, in one sense, the theist only has *one* line of attack against Locality, since absences are simply a subset of the set of abstract entities. However, there is a sense in which they remain distinct lines of attack. It might be that one has independent motivations for denying the existence of things such as numbers, sets, and propositions, but yet have no problem with countenancing the existence of abstracta. In this case, such a person could mount an attack against Locality without committing themselves to the existence of the kinds of entities which are paradigmatically associated with abstracta.

[91] This is just a sample of the candidate distinctions Hale presents. For brevity, I name only a few.

not ruled out by *fiat* – then there is a debate to be had over whether abstracta could enter into causal relations.

There are a number of plausible examples of abstracta which enter into causal relations, including, *inter alia*, mathematical entities, propositions, artworks, and concepts. Consider the following statements which seemingly demonstrate the causal efficacy of abstracta:

> (D)   Bertie's thinking about Pythagorean theorem caused his confusion.
>
> (E)   Bernie's marriage caused his unhappiness.
>
> (F)   The beauty of the symphony caused Bertha to weep.
>
> (G)   Betty knows that all circles are 360°.

Taking these in turn, (D) asserts that a mathematical theorem caused Bertie's confusion (or at the very least played some causal role in bringing about his confusion). On the assumption that a mathematical theorem is an abstract entity in the sense that it is not a spatiotemporally locatable entity, it is plausibly the case that (D) is true because an abstract entity is causally efficacious. Likewise, on the assumption that a marriage is not a physical entity, but, rather, an abstract concept, (E) plausibly reports the causal efficacy of the concept marriage. (F) plausibly illustrates the causal efficacy of two different abstracta – the property beauty, and an artwork – on a person's emotional state. Lastly, on the assumption that in order to have knowledge of a something, one must have some causal acquaintance with that thing, and on the further assumption that to know that 'all circles are 360°' is to have knowledge of a proposition – again, an abstract entity – then if (G) is true, that must be because Betty has some causal acquaintance with an (abstract) proposition.

If abstracta are amongst the set of genuinely causal relata then Locality would be undermined because some possible causal relata would then be non-spatiotemporal. It follows from this that it is not a matter of necessity that direct causes are spatiotemporally contiguous with their effects: causes need not be physically connected to their effects at all. If abstracta-based causation is genuine causation, then there are theistically-neutral grounds from which to reject Locality, meaning that divine causation cannot be ruled out purely because it conflicts with it.

3.2   Benacerraf's Challenge

Historically, the general consensus with respect to the answer to the above question (*can abstracta be causal?*) seems to have been to answer this question in the negative. This is presumably down to the popularity of giving a characterisation (though, perhaps not a *complete* one) of the abstract/concrete distinction in line with (b), i.e. to construe abstracta as aspatiotemporal entities. For it is likewise commonplace to deny that aspatial and atemporal entities can be causally efficacious.[92] Given this tendency to deny that abstracta have any causal efficacy, there has been a well-known epistemological challenge for anyone who wishes to countenance the existence of such entities (call such people Platonists). This challenge is perhaps most famously presented by Paul Benacerraf, in his 1975 paper 'Mathematical Truth', in which he directs the problem at mathematical Platonism (though, the main thrust of the argument may as well be directed at any Platonist). Benacerraf begins by asserting that any account of mathematical truth ought to provide the following:

(1)   A homogeneous semantical theory in which semantics for the propositions of mathematics parallel the semantics for the rest of the language.

(2)   An account of mathematical truth that meshes with a reasonable epistemology.
(*Ibid*: 661)[93]

What criterion (1) entails is that the truth of a mathematical sentence requires the existence of suitable mathematical objects to which the sentence's singular terms refer. What Benacerraf means by a 'reasonable epistemology', stipulated by (2), is the idea that an account of mathematical knowledge ought to involve a causal story, whereby a subject gains knowledge by *acquaintance*, such that there is a causal connection between the knower and the entity known. However, since mathematical objects are *abstract* (i.e. non-spatiotemporal), they apparently cannot enter causal relations, and therefore, no respectably causal epistemology could be given. Therefore, Benacerraf's two desiderata appear to deliver the result that mathematical knowledge is impossible; a consistent semantics is delivered at the cost of a failure to provide a reasonable epistemology. In his own words:

> If…numbers are the kinds of entities they are normally taken to be, then the connection between the truth conditions for the statements of number theory and any relevant events connected with the people who are supposed to have mathematical knowledge cannot be made out. (*Ibid*: 673)

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[92] As discussed in §1.

[93] (1) and (2) have been paraphrased.

Benacerraf thereby poses an *a priori* challenge: How can we make sense of the idea of causal interactions between abstract objects and ourselves? If we can't, then it seems we can't have any knowledge of such objects.

3.3   Callard's Defence

Benacerraf's challenge has been taken up by Benjamin Callard (1997), who attempts to show that there is, in fact, no good reason for thinking that abstracta are incapable of standing in causal relations, and therefore, that the epistemological challenge may be dismissed.

Callard asks us to reflect on what reasons we might have for thinking that abstracta cannot cause us to know things about them. One reason is that perhaps it is due to our having adopted some kind of contact principle, 'that contact necessarily involves touch, and that non-spatial objects cannot touch anything.' (*Ibid*: 350). But, Callard asks, why think that efficient causation must proceed by contact in this (touch-entailing) sense? Efficient causal relations unsupported by contiguity relations are perfectly intelligible and (therefore) apparently possible, even if they are not actual. He argues:

> If 'action at a distance'—that is, one physical object causally affecting another without (even indirectly) touching it—is intelligible, then the problem with the idea of causal interactions between ourselves and abstract objects is not to be found in the absence of impacts in the mathematical case…but must be sought elsewhere. (*Ibid*: 350)

The argument, then, is that even if it were the case that the causal relation must proceed via contact in the *actual* world, there is little reason to think that this must be the case in *all* possible worlds, given that we can imagine the existence of such worlds, with seemingly no incoherence. Indeed, as pointed out in §1, there is also a case to be made for thinking that causation in the actual world is not always underwritten by contact, due to certain quantum-level interactions, for example. Further, if we consider the causal interactions between magnets, or the orbits of the planets in the solar system, and so on, it seems these are not the kind which proceed via contact. It's true, of course, that in such cases, we talk of 'fields', but it also seems to be the case that we don't consider the fields *themselves* to touch; to speak of a 'field' is just to talk of the reach of an influence of an object. Now, perhaps the model in current science according to which certain forces proceed via contact since they are mediated via particles (such as the Higgs Boson), or according to which gravity simply is the curvature of substantival

spacetime is correct. Nonetheless, the fact that Newtonian model of gravity,[94] stood in scientific favour for centuries seems to demonstrate that the possibility of unmediated forces and fields is not conceptually incoherent. Since, on this model, gravity is characterised as acting unmediated; it is seen as 'a phenomenon in which a change in intrinsic properties of one system induces a change in the intrinsic properties of a distant system, independently of the influence of any other systems on the distant system, and without there being a process that carries this influence contiguously in space and time' (Berkovitz, 2008: §5.2) Further, consider the possibility of a world in which space is finite. In such a world, if an object were travelling through that space until it reached the boundary, or edge, of space, it seems that the edge of space would stop that object from moving any further. Yet, in this scenario it seems highly doubtful that any energy would thereby be transferred to that object. Given these kinds of considerations, it seems, therefore, the claim that causation—as a matter of metaphysical necessity—must involve contact cannot provide any basis from which to argue against the possibility of causation by abstracta.[95]

If not contact, then perhaps our commitment to some other physical principle involving force or energy is what makes us believe that abstracta cannot be causes. However, says Callard, whilst it may be 'strongly impossible'[96] for abstracta to *receive* energy (since they are timeless, and hence, immutable), there is no reason to think that it is strongly necessary that if abstracta *impart* energy to us then they must receive energy (*ibid*: 351). Perhaps this would be true if Newton's third law of motion (or some similar law) were a strongly necessary truth, but as Callard points out, this is simply an *empirical* truth; it does not present a metaphysical necessity. For, as with the contact principle, there seems to be no conceptual incoherence or other metaphysical difficulty with the notion of a causal relation which does not involve reciprocal (or perhaps *any*) energy transference. Given this, the idea of an unmoved mover seems perfectly intelligible (*ibid*: 351).[97]

An alternative reason why one might deny that abstracta have any causal efficacy might be the idea that causation must occur at a time, and therefore causes cannot be atemporal. But, Callard warns, we need to be careful to distinguish between two senses of 'atemporal'. One sense of the term would require an atemporal object to undergo no intrinsic or extrinsic change; another would permit that an object might undergo mere extrinsic change. The

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[94] See Newton (1729).

[95] Well, it might, but there would need to be some additional argument to show why such counter-example possibilities to the contact principle are merely epistemic.

[96] This is Callard's term for 'metaphysically impossible'.

[97] This issue is taken up again in §3.5.

Platonic theory of forms construes atemporality in the latter sense. This theory would maintain that when a beautiful chalice is created on Thursday afternoon, something happens to the form of beauty on Tuesday afternoon – it is instantiated. But, as Callard explains, '… this is hardly a retraction of … [P]latonism. In this sense of 'temporal', [P]latonists can accept that abstracta are temporal … They can still be necessary, permanent, and unchanging, and this is the sense of 'atemporal' operative in classical [P]latonism.' (*Ibid*: 352). Callard therefore suggests that it is perfectly respectable to characterise abstracta as being atemporal, yet also as capable of undergoing mere extrinsic, or 'Cambridge' change, since this is not the sort of change that threatens an object's immutability. Therefore, we can allow that abstracta may enter into causal relations whilst not also denying that their effects occur in time.

3.4   Azzouni's Objection

Jody Azzouni (2008) objects to Callard's argument and charges Callard with having overlooked an important issue. According to Azzouni, different Platonic objects must causally affect the same objects in different ways, and a singular abstractum must be capable of affecting different objects differently. However, since abstracta are located outside of the spatiotemporal order, there is no explanation available which could account for how abstracta are capable of doing this. He states:

> Given that neither 13 nor 666 is in space or time…how is it that they causally affect me differently, and affect me differently from my cat? The sheer fact that 13 and 666 are themselves different objects won't do the job. After all, different objects (notoriously) can affect something in precisely the same way. What differing causal relationships do I respectively have to 666 and 13 that enable me to think of 666 when I do (and not 13), and 13 when I do (and not 666)? (*Ibid*: 397)

Azzouni asks us to imagine a scenario according to which I have a doppelgänger elsewhere in the universe who has exactly the same molecular make-up as I do; and further, that our causal histories are identical except for the fact that my duplicate is several minutes behind me, such that when I think of the number 13, my duplicate thinks of the same a few minutes later. Azzouni contends that in this scenario, myself and my double will undergo different causal effects imparted by the number 13. But, '[h]ow is it that 13 manages to effect what it effects on me several minutes before [them]? … The difference seems to be a brute factual difference that can't turn on any differences in the relations between me and 13, and him and 13 (*Ibid*: 398).

A possible response to this issue is suggested by Azzouni: perhaps we could say that numbers each emit a particular frequency through space and time, and that once a person is

'properly attuned' to a particular number, they may be causally affected by it. However, he quickly rejects this proposal since he does not see what feature numbers could possibly have which would enable them to emit such frequencies: 'For that matter, why should certain physical states (and not others) induce a susceptibility to (causally) responding to that frequency? All of this—it seems—must be posited out of whole cloth.'[98] (*Ibid*: 400).

The conclusion drawn is that the notion of causation by abstracta has to be rejected, not only on the grounds that it is *mysterious*, but for the reason that any attempted explanation of how such a causal relation could hold turns out to be *unintelligible*.

3.5   Against Azzouni

If the theist is to use abstracta in order to refute Locality, then they will need to respond to this objection. To begin with, they may argue that the counterexample case given is not a genuine counterexample. If a perfect duplicate of me thinks of 13 and I do not, then there must be a difference in the relata; my duplicate must be in a different mental state, and if mental states are brain states, then they must be in a different brain state also. So the theist should deny that two qualitatively identical people could have different thoughts.

However, perhaps this objection misses the mark. A more general way of stating Azzouni's concern could be this: given that effects happen at specific spatiotemporal locations, we ought to expect their causes to account for why their effects occur at the time and place they do. However, if both my perfect duplicate and I can exist at time $t1$ and yet, only I, at $t1$ am thinking of the number 13, then the number 13 cannot account for why this is so. This is because the number 13 stands in the exact same timeless relation to me and my duplicate.

It certainly is true that in a great many cases of causation the cause provides the sole explanation for why it is that the effect occurs at the time and place that it does. However, this is not true across the board, as the following cases show. Suppose that my duplicate and I are sitting in a room, blindfolded in such a way that we are in total darkness. Suppose also that the room itself is lit up by a lamp in the corner. After a while, I decide to take my blindfold off, and then I perceive the white light in the room. The cause of my perception of the light is the light itself. But there is no relevant spatiotemporal difference between the light and me, and

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[98] In case the reader is unfamiliar with it, the expression 'cut out of whole cloth' means that one has fabricated something. It is explained in *The American Heritage Dictionary of Idioms* that: 'In the 15th century this expression referred to something fabricated from cloth that ran the full length of the loom. However, by the 1800s it was common practice for tailors to deceive their customers and, instead of using whole cloth, actually make garments from pieced goods. Their advertising slogan, "cut out of whole cloth", thus came to mean "made up, false"' out of whole cloth.' (2016)

the light and my duplicate, which explains why the light affects my eyes and not my duplicate's. That is, there are no facts about the light itself which explain why I happen to perceive the light at the time that I do. What *does* explain this are facts about *me and my mental states*; it is because I decided to remove my blindfold that I perceived the light at that time.

Following Fred Dretske (1988), perhaps we should draw a distinction here between standing, or *structural* causes, and *triggering* causes, where standing causes are taken to be those which provide ongoing or static conditions for an effect's occurrence, and triggering causes are those which kick into motion a process or causal chain which leads to an effect. Dretske explains his distinction as follows:

> In looking for the cause of a process, we are sometimes looking for the triggering event: what caused the event C *which* caused the M. At other times we are looking for the events that *shaped* or *structured* the process: what caused C to cause M rather than something else. The first type of cause, the triggering cause, causes the process to occur *now*. The second type of cause, the structuring cause, is responsible for its being *this process*, one having M as its product, that occurs now. The difference … is familiar enough in explanatory contexts. There is a clear difference between explaining why, on the one hand, Clyde stood up then, and explaining, on the other hand, why what he did then was stand up (why he *stood up* then). He stood up *then* because that was when the queen entered, or when he saw the queen enter the room. He *stood up* then as a gesture of respect. The difference between citing the triggering cause of a process (the cause of the C which causes M) and what I have been calling its structuring cause (the cause of C's causing M) reflects this difference.[99] (*Ibid*: 42-45)

Taking this on board, one can maintain that it is only *triggering* causes that we should expect to provide the kind of information Azzouni is after, and not the *structural* causes, as he seems to imply. In the case at hand then, we could view each abstract object as (in some sense) emitting a certain signal which is unique to it, and cognisers as having some kind of sensory faculty which is able to register and interpret such signals. So, we may say that whilst both my duplicate and I have the same relation to the standing cause, the (signal from) the number 13, the reason that I entertain the number 13 at a different time to them is that there is a triggering cause, by way of my decision to think of 13, which explains why I am affected by the number at a different time to my duplicate. Indeed, it is worth noting that theists often tell a similar story about contact with God. As Brian Davies notes, 'According to classical theism God is always everywhere, always present to creatures.' (2004: 4) It is, then, a matter of *one's turning one's attention to* God which allows one to experience God. Azzouni does seem to anticipate a response of this kind:

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[99] Original emphasis.

> Why can't it be, after all, that each number 'emits' a frequency throughout space and time, and that, for each number, that frequency is different? When I am properly attuned to the frequency of 13, I think of 13, and when I'm properly attuned to the frequency of 666, I instead think of that number? (*Ibid*: 399)

However, he considers that such a response would be *ad hoc*, since we have no good reason to think that numbers (or any other kind of abstracta) should emit any such frequency, nor that we have some special faculty for being able to latch onto this. He warns:

> We must be careful of the 'Radio Plato' analogy on offer here. Radio waves have sources, and they produce electromagnetic fields in space that a physically primed 'antenna' can receive. … But what is it about a *number* that enables it to issue (in space and time) a frequency that physically affects some things differently from other things? (*Ibid*: 400)

Azzouni's contention is that such an explanation requires us to posit 'brute spatially and temporally conditioned facts', which is objectionable. It is one thing, he thinks, to be committed to the existence of abstracta, but quite another—and a step too far—to posit, in addition, abstracta-recognising faculties in cognisers and frequency-emitting capacities in abstracta.

The argument here appears to as follows: according to the Platonist, if we have mathematical knowledge, then we have abstracta-recognising cognitive faculties. But since we do have mathematical knowledge, and we *don't* (to our knowledge) have such faculties, Platonism can't account for our mathematical knowledge. Consequently, the Platonist contention that we have abstracta-recognising cognitive faculties must be rejected. But, of course, the Platonist could equally-well argue in the following way: since we *do* have mathematical knowledge, we must have some relevant cognitive faculty. Indeed, since it is relatively incontrovertible that we do have mathematical knowledge, what better reason could we have for thinking that we must have cognitive faculties which enable us to apprehend the objects of that knowledge?

Perceiving Abstracta

One way of responding to the worry that positing a distinct cognitive faculty for recognising abstracta would be to construct such a thing out of 'whole cloth' would be to say: It *is true* that we have no such distinct cognitive faculty, but that is because we perceive abstracta in much the same way that we perceive ordinary objects. This is the route taken by Penelope Maddy in her 1980 paper, *Perception and Mathematical Intuition*. She contends that we see sets in the same

way that we see some medium-sized physical objects. In her words, we 'acquire perceptual beliefs about sets of physical objects, and … our ability to do this develops in much the same way as that in which our ability to perceive physical objects develops' (*ibid*: 178). Maddy takes the example of a person, *P*'s, opening a carton of eggs and seeing that the set of eggs in it has three members. *P* forms the perceptual belief that there are three eggs in front of him; perceptual because it is an integral part of the body of beliefs making up P's perceptual state. Maddy argues as follows:

> Other perceptual beliefs acquired on this occasion probably include details about the size and colour of the egg, … the locations of the particular eggs in the nearly empty carton, and so on. The numerical beliefs are clearly part of this complex of perceptual beliefs because they can influence the others as well as being influenced by them. …So, the various numerical beliefs acquired on this occasion are perceptual, and I further claim that they are beliefs about a set, that is, I claim *P* acquires the perceptual beliefs that there is a set of eggs before *P*, that it is three-membered, and that it has various two-membered sub-sets. (*Ibid*: 178-9)

Maddy anticipates the obvious response that, since sets do not have any location, they cannot be the objects of our perceptual states. She responds by admitting that whilst a number of sets, such as the empty set, or the set of real numbers, do not have any location, this is not so with sets of physical objects. She urges that it seems 'perfectly reasonable' to suppose that such sets have location in time, and that a set containing a particular object will go in and out of existence with that object. '[A] set of physical objects has spatial location insofar as its elements do. The set of eggs, then, is located in the egg carton … exactly where the physical aggregate made up of the eggs is located.' (*Ibid*)[100]

Even if Maddy is right here, one might still wonder why the numerical beliefs in question should not be considered to be mere beliefs concerning the *physical aggregate* (rather than the set). Maddy responds as follows:

> These beliefs are beliefs that something or other has a number property, and Frege has soundly defeated the view that a physical aggregate alone can have such a property. Frege's own solution is that such beliefs are about concepts, but it seems no less plausible to suppose that they are actually about extensions of concepts, or in other words, sets. (*Ibid*: 179-80)

Her contention is that, following Frege, it is problematic to maintain that numbers are properties of objects, since the matter constituting the eggs also makes up some large number of molecules, so the number property cannot be attributed to the underlying matter. Therefore, it must be a property of the set, and so the belief must concern the set.

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[100] I take issue with this contention in the discussion below.

Maddy's account has a number of rewards: it allows us, for instance, to have a consistent theory of causal acquaintance with abstracta and every-day concrete objects, and so provides a response to Benacerraf's challenge. Where I take issue with her view is the contention that sets are spatiotemporally located where their members are. I do not think the Platonist need revise their view of abstracta in order to make use of Maddy's suggestion. What can be argued, *pace* Maddy, is this: sets are abstract, but they are nonetheless capable of being perceived. They are perceived in the indirect sense; that is, via their members. Consider an analogy: when we perceive duration, we do not do so literally stand in a direct perceptual relation with duration, rather, we perceive duration indirectly, *via* the events which stand in the relevant temporal relations. However, though this is indirect, we nevertheless truly do perceive duration since it is something we experience.

Given that causal acquaintance tends to go hand in hand with *a posteriori* knowledge, we might have to concede that mathematical knowledge is *a posteriori* if we have causal acquaintance with mathematical objects. Although this would, perhaps, be a counterintuitive result, it is not obvious that it would be a problematic one. One might, perhaps, argue that mathematical truths could have a status akin to that of *a posteriori* necessary truths, such as that *water is H$_2$O*.

Atemporal Agency

Despite what I have said here, if one still finds this response implausible in the case of abstracta, so that it might rule out causation by *platonic objects* such as numbers, it need not rule out causation by an *atemporal agent* with various mental states. Given that agents have thoughts and actions which are directed (intentional), it is not unintelligible to think that atemporal agents could have different effects on different objects. The theist ought to say that God has eternal intentional thoughts about what should occur at particular times. This would not make God temporal; rather, his *effects* would be temporal.[101]

3.6   Conditional Locality

One conclusion to draw from the above discussion is that Locality definitely cannot be assumed to be true across the board; there is little reason to think that Locality rules out causation by abstracta, absences, or the divine. However, the further conclusion cannot be drawn that Locality therefore must be outright false. It could be, after all, that Locality has

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[101] I defend this position at greater length in Chapter V.

conditional application: where causes and their effects are spatiotemporally located, they must comply with Locality, i.e.:

Locality*: For any event E and for any finite temporal interval $\tau > 0$, no matter how short, then *if there is a spatiotemporal cause of E*, there will be a complete set of E's causes such that for each event C (a cause) in this set, there is a moment at which it occurs that is separated by an interval no greater than τ from a moment at which E occurs.

Unlike its predecessor, Locality* may be endorsed by theist and non-theist alike.

However, a question arises: *why does Locality* hold at all?* That is, if it's the case that there can be causal interactions between non-spatiotemporal and temporal entities, then why should it be the case that spatiotemporal causes must be contiguous with their effects? A number of things may be said here. First, it is not my concern to provide a positive account of causation on the part of the theist. The theist under consideration is simply someone who wishes to dismiss various lines of attack against the coherence of Divine Causality. Therefore, there is no burden on such a person to provide a comprehensive answer to such a question. Second, it seems that there are *prima facie* reasons for endorsing Locality*; one might think, for example, that spatiotemporal causes must be local to their effects, because they cause via some kind of energy transference, and there is some story to be told about such causes which requires spatiotemporal energy to be transferred via contact. Third, on the account of divine creation and conservation outlined in Chapter III, God is causally responsible for creating the substantival spacetime points, along with initial matter (and thereby also the universe's initial conditions). God is not, therefore, involved with the kinds of causal processes which involve energy transfer and contact which occur *within* the spatiotemporal manifold.

4. Causal Theories of Time Order

4.1   The Causal Theory of Time Order

Perhaps the most predominant motivation for adopting the thesis that causal relations are necessarily temporal (CET) is that it is entailed by causal theories of time order. Such theories maintain that the direction, or 'arrow', of time is grounded in the causal relation; so that the temporal direction can be defined in terms of causal direction. Now, it ought to be noted that

there are, generally speaking, two kinds of orderings: those which are directed, and those which are not. Consider, for example, the series *D, E, F*. Now, depending on which relation is used to order the elements of this set, the set may or may not be said to be directed. If *D, E, F,* is ordered only by the 'betweenness' relation, then the series will have no direction. For, knowing that E comes between D and F does not tell us whether D comes before E, and F after E, or whether it is F which comes first and D last (if either). However, if D, E, F, is ordered by the temporal 'earlier-than' relation (for example), it becomes clear that because E comes between D and F, if D is earlier than E, and E is earlier than F, it is D which comes first, and F last (i.e. the temporal ordering is *directed*). As Hugh Mellor notes:

> The direction of time is the difference between being earlier than something and being later than it. The difference is not formal, since earlier and later are formally similar, each being the other's converse (any x is earlier than any y if and only if that y is later than that x) and both being transitive (if x is earlier/later than y, and y than z, then x is earlier/later than z). And if time is linear, i.e. if the passage of time returns nothing to its origin, earlier and later will also be irreflexive and asymmetrical: nothing will be earlier or later than itself, and nothing will be both earlier and later than anything else. (2009: 449)

What the causal theory of time order seeks to explain, then, is the directedness of the temporal order; the fact that the temporal order is such that *earlier events come before later ones* (i.e. that the temporal 'arrow' is pointed from earlier to later). As the name would suggest, causal theories of time order provide an explanation of this feature of the temporal order by *grounding it in the causal order.* The causal order, like the temporal order, is directed; causes precede their effects in a way such that effects do not precede their causes. Accordingly, if our series *D, E, F,* is ordered by the 'causes' relation, then by knowing that *D* causes *E*, and that *E* causes *F*, one will know that *D* is causally prior to *E*, and *E* prior to *F*. So, by asserting that the temporal order is grounded in the causal order, and given that the causal order is itself similarly directed, the causal theory of time order can explicitly define the direction of time in causal terms. The theory holds 'that if E_1 causes E_2 then E_2 occurs later than E_1, *precisely because it is an effect of E_1.*'[102] (Dainton, 2001: 51) In short, the causal theory of time order (hereafter simply Causal Theory) may be presented thus:

Causal Theory: *C* is temporally prior to *E* iff *C* is causally prior to E[103, 104]

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[102] Emphasis added.

[103] Where *E* causally depends on *C* in a way that *C* does not causally depend on *E*.

[104] Where *C* is causally prior to *E* not in the strict sense that *C* must be a cause of *E*, since we can allow that *C* is simultaneous with some event which is an (immediate or non-immediate) cause of *E*.

If Causal Theory can be shown to be successful, then Locality will also be secured. For, if temporal order is rooted in causal order, then given that (when considering any causal chain) it is most natural to call whichever event (or state of affairs) is causally most proximate to the effect the 'direct' cause, it immediately follows from this fact, in conjunction with Causal Theory, that there could never be a temporal gap between cause and effect.

4.2   Motivating Causal Theory

What are the motivations behind a causal theory of time order? One reason (as pointed out by, e.g., Tooley, 1997: 257) is that the causal and temporal orders, at least on the face of it, seem to share the same formal properties: (i) irreflexivity – just as no event may be causally prior to itself; no time can be temporally prior to itself; (ii) transitivity – just as if *E1* is earlier than *E2*, and *E2* is earlier than *E3*, then *E1* is earlier than *E3*; if *E1* is causally prior to *E2*, and *E2* to *E3*, then *E1* is causally prior to *E3*; and (iii) asymmetry – just as if *E1* is the cause of *E2*, then *E2* cannot be the cause of *E1*; (iv) directed series – just as the temporal and causal series are directed such that 'one of the two directions associated with each of these [i.e. temporal and causal] relations has a special significance: it is *the* direction of time, or *the* direction of causation' (*ibid*). A further motivation for Causal Theory is the fact that the causal and temporal orders appear to always be co-present: wherever there is causal order, there is temporal order, and vice versa. It's natural to expect there to be some underlying fact that explains these similarities, rather than to concede that they hold as a matter of brute coincidence. As Hugh Price and Brad Weslake (2009: 414) note: 'One of the most striking features of causation is that causes typically precede their effects—the causal arrow seems strongly aligned with the temporal arrow, as it were.' The question is whether a reason can be given to explain why these arrows (asymmetries) should be aligned in this way. (Price and Weslake refer to this as 'the puzzle of the time-asymmetry of causation.' (*Ibid.*)) Proponents of Causal Theory seek to explain this puzzle of the time-asymmetry of causation by grounding the temporal arrow in the causal arrow.

In addition to having explanatory support, Causal Theory has also been given support by way of direct argument by those such as Hugh Mellor (1991; 1998). Mellor purports to 'derive [Causal Theory] from the causal mechanism by which we perceive the temporal order of events' (1991: 191). In setting up the argument, Mellor introduces the following notation:

Events: $e, f, g, h…$
x precedes y: $x < y$

S perceives that *p*:	S(*p*)
x entails *y*:	*x* |= *y*
x causes *y*:	*x* => *y*
A set of conditions:	C

(*Ibid.*)

Second, Mellor explicitly assumes three points; two 'terminological' and one 'substantial'. The first terminological point is that his argument takes causal and temporal relations to hold between events—construed as particulars, and denoted by singular terms. Mellor assures us, though, that little turns on this point, presumably because he considers that his argument could run *mutatis mutandis* whatever causal relata are supposed to be (*ibid*: 193). The second terminological point is that the notion of 'perception' used within his argument is not a success term: 'X perceives/sees that p' here entails neither 'p' nor even 'X believes that p'… [For example,] we can see that something happens on the sun just after a clock strikes one, even though we know…that it actually happens earlier.' (*Ibid*: 194) The substantial assumption is that our perceptions of the temporal order and directedness of events are of 'wholly *objective* tenseless relations.'[105] (*Ibid.*)

With these clarifications made, Mellor begins his argument by reasoning as follows:

> … suppose I see that one event, *e*, precedes another, *f*. My seeing this is itself an event… S(*e* < *f*) … But what is S(*e* < *f*)'s structure: how do I see that *e* precedes *f*? Obviously by seeing *e*, seeing *f*, and seeing *e* first: [i.e.] (S*e* < S*f*). But there must be more to S(*e* < *f*) than this. For suppose that by the time I see *f* I have completely forgotten having seen *e*… Then S(*e* < *f*) could not occur: for I cannot perceive anything about two items if they are at no time connected in my mind. (*Ibid*: 194)

His idea is that in order for one to see that *e* precedes *f*, one's seeing of *e* must somehow affect one's seeing of *f*; or, in other words, one's seeing that *e* precedes *f* entails that one's seeing of *e* causes one's seeing of *f*. This idea is stated formally as follows:

(1)   S(*e* < *f*) \|= (S*e* => S*f*)[106]

According to Mellor, in such a case: 'the causal order of my perceptions of *e* and *f* fixes the temporal order I thereby see *e* and *f* to have.' (*Ibid*: 195) For, if I were to perceive that *e* is temporally prior to *f*, then that must be because my seeing of *e* causes my seeing of *f*. Therefore,

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[105] Emphasis added.
[106] This, and the following numbered statements are Mellor's (*ibid*: 195-6).

Mellor reasons, if 'C' is the conjunction of the other conditions required for Se and Sf to constitute a perception of the temporal order of e and f, then:

(2) $C \mathbin{\&} (Se \Rightarrow Sf) \models (Se < Sf)$.

However, Mellor claims, (2) then secures the temporal order of Se and Sf (*ibid*: 195). This is because the temporal order of one's perceptions of events must coincide with the temporal order one perceives those events to have. So, in the case of e and f, if one sees that e precedes f by seeing e and seeing f, one must see e before one sees f. So:

(3) $C \models S(e < f) \leftrightarrow^{107} (Se < Sf)$.

Now, from, (2) and (3), we get that C, together with the fact that one's seeing e causes one's seeing f, entails that one's seeing e precedes one's seeing of f, i.e.:

(4) $C \mathbin{\&} (Se \Rightarrow Sf) \models (Se < Sf)$.

At this point, Mellor recognises that causal order has been shown to entail temporal order for a pair of events 'only if they are perceptions of events of whose temporal order the pair thereby also constitutes a perception', and calls this kind of property of a pair of events 'PT' (*Ibid*: 196) However, he explains that for any pair of events $\{g, h\}$, such that g causes or affects h:

(5) $g \Rightarrow h$

One can envisage that g and h might keep their actual causal and temporal orders while being so related to other events such that $\{g, h\}$ has property PT: 'i.e. while being such that, for some e and f, $g = Se$, $h = Sf$, and condition C holds… But then (4) entails that in these circumstances' (*ibid*: 196):

(6) $g < h$

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[107] As standard, $\leftrightarrow$ represents 'iff'.

That is, that *g* precedes *h*. 'But since *g* => *h* and *g* < *h* are *ex hypothesi* the actual causal and temporal orders of these events, *g* must precede *h* in any case, whether {*g*, *h*} has the property PT or not.' (*ibid*: 196). Therefore, Mellor concludes that causal order always entails temporal order.

If Mellor's argument is successful then there is good reason for thinking that Causal Theory is true. And, as we have seen, if Causal Theory is true then the coherence of Divine Causality is threatened. Fortunately for theism, we will see in the next section that Mellor's argument does not lie on solid foundations.

5. Rejecting Causal Theory

5.1   Conceptual Differences

In §3.2 I outlined the commonly held beliefs that causal and temporal arrows each point in the same direction, and that the causal and temporal orders are formally alike. Many would find it difficult to accept these similarities as a matter of brute fact; therefore, it is argued that there must be some explanation for these phenomena. However, not everyone agrees that the causal and temporal orders are, in fact, formally identical, or indeed, that the arrows of causation and time are necessarily pointed in the same direction; for, it is argued that there are important conceptual differences between temporal and causal priority.

J.L. Mackie, for example, puts pressure on the idea that the causal and temporal arrows are similarly directed when he points out that, in some cases at least, 'we seem ready to accept causes that are simultaneous with their effects—for example, Kant's leaden ball resting on a cushion and being causally responsible for a hollow' (1980: 161). Cases of this sort are abundant: the poker's being hot causes it to glow; one end of the see-saw goes down while the other goes up; the gravitational pull of the Earth keeps me sat in my chair, etc. These examples seem to present actual-world cases of causal relationships holding between two relata which are contemporaneous with one another. Indeed, it seems conceptually possible that some such causal relationships could hold in worlds which lacked any temporal dimension whatsoever; e.g. Kant's ball could presumably still be causally responsible for the cushion's shape in a static world.[108]

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[108] It has been argued by, e.g. Myles Brand (1980), that simultaneous causation is not just possible, but *universal*, i.e. that all causation must be simultaneous. Though, it will not do for the theist to endorse such arguments, since universal simultaneous causation is just as problematic for the notion of divine causality as is LOCALITY; both theses rule out the possibility of non-temporal causation.

In addition to our ability to conceive of cases of simultaneous causation, it also seems we can, though perhaps with greater difficulty, consider the possibility of backwards causation. In these cases, the cause and effect are ordered in time such that the effect is temporally prior to the cause – that is, where the temporal order is reversed with respect to the normal case, but the causal order remains the same. Imagine the drum's beat occurring prior to the drummer's hitting it, the window's smashing before the ball hits it, or the ceremonial dance on Sunday causing the rainfall on Tuesday, for example.[109] These differences between temporal and causal asymmetry put pressure on the view that 'temporal priority is just causal priority in disguise' (*ibid*: 163). For, it looks as though we can conceive of the causal arrow variously directed with respect to time.

Mackie also provides a line of attack against the formal similarities of the causal and temporal priority relations, though, in this instance, his reasoning is fallacious. Mackie argues that the temporal and causal orders are formally different since: 'The direction of time characterizes the direction as a whole, whereas the direction of causation characterizes each process or sequence on its own.' (*Ibid*: 162) His claim is that once the temporal direction is fixed between any pair of events, it is given to the system as a whole. Whereas, when we determine the causal direction between a pair of events, we do not thereby determine the causal direction for all. Consider the ordered set of events, {*B, C, D, E*}. According to Mackie, once we know that B is temporally prior to *C*, we thereby discover that C is temporally prior to D, and D to E. His contention seems to be, then, that: for all x, and for all y, it is the case that there is a temporal relation between x and y; however, it is *not* the case that for all *x*, and all *y*, there is a causal relation between *x* and *y*. However, suppose we have a temporally ordered set of events {*B, C, D, E*}, then '*B* may be causally prior to *C*, and yet *D* and *E* may be causally irrelevant to one another, or again *E* might be causally prior to *D*.' (Ibid: 163) The reason for the error is that Mackie is explicitly asking us to consider an ordered series (system) here. Now, if *B, C, D, E*, were elements of a collection which did not form a system, then it could indeed follow that knowing of *B*'s causal priority to *C* would have no bearing on knowing whether *D* is prior to *E*. But that is precisely because elements *B, C, D, E,* do not form a system. If they do, however, form a system, then that system must be defined somehow. And, if the case is to be analogous to the temporal one, the property which defines the system must be causal. Yet, if it is causal, then knowledge of the causal order of any two elements of the system will indeed provide knowledge of the ordering of the rest of the set.

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[109] The latter example is taken from Michael Dummett (1964: 349-50)

Given that we can make sense of both simultaneous causation and retro-causation, the advocate of Causal Theory cannot simply assert, without supporting argument, that the temporal the causal and temporal relations share the same formal properties and are necessarily pointed in the same direction. For, unless simultaneous, and backward, causation are shown to be impossible, then there are grounds for thinking that the formal features of the causal and temporal relations differ, in which case, the temporal order cannot be grounded in the causal order.[110]

5.3 Circularity

If there is something intrinsically mysterious about relations which have a particular directedness, then any desire to explain the direction of time's arrow will surely be matched by a desire to explain what accounts for the direction of *causation's* arrow. However, Causal Theory cannot account for the direction of causation by means of the claim that, for any two events related to each other as cause and effect, what determines which of these events is the cause is just whatever of these is the *earlier* of the two. For, if causal priority is explained by temporal priority, then Causal Theory would merely be providing a circular explanation of time's arrow.

The idea that causal priority must be understood in terms of temporal priority (call this Temporal Theory[111]) is just as problematic for theism as it is for Causal Theory. In fact, Temporal Theory is just as theistically problematic as Causal Theory. Since, if the claim that God (or God's will) stands in a relation of causal priority to the world has to be understood in terms of temporal priority, then *contra* the classical conception of God as atemporal, God must stand in temporal relations and bear temporal properties.[112] Given this, theists should *not* attempt to argue that Causal Theory is false by claiming that any analysis of causal priority would involve reference to temporal priority.

Theists can fend off the challenge posed by Temporal Theory in just the same way as they can fend off Causal Theory. That is, by arguing that simultaneous and backward causation are possible, and that the causal and temporal priority relations bear different logical properties to each other. Of course, this would still leave the theist with the task of explaining what it is

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[110] If Mellor's argument were to prove to be successful, however, then it would follow that the causal and temporal relations share the same formal properties. For, if Causal Theory is true, then the logical properties of the temporal arrow will supervene on those of the causal arrow.

[111] That is, the temporal theory of causal order.

[112] For parallel reasons, the theist will obviously not be able to ground causal asymmetry in any physical feature (i.e. thermodynamics, entropy etc.) of the world either.

that causal asymmetry consists in, but fortunately our task here is simply to fend off the implication that causation and temporality are tightly woven together.

5.4 Physicalism

A further problem facing Causal Theory is that it is seemingly in tension with the claim, held by many physicists, that the dynamical laws of physical theories are time-reversal invariant. To say that physics is time-reversal invariant is to say that fundamental physics permits processes to occur in either temporal direction, i.e. if a physical theory admits a process to occur in one temporal direction, then it also allows it to occur in the opposite direction. For this reason Hugh Price and Brad Weslake pose the following question against the advocate of Causal Theory: 'How could time-symmetric physics yield something as time-asymmetric as the cause–effect distinction?' (2009: 418) It is unclear, however, what kind of story the proponent of Causal Theory could tell which could account for the directedness of the temporal arrow, given that physics describes a world in which things could run in either temporal direction. There is room, of course, for such an account to be developed, but until one is forthcoming, there is further grounds here from which the theist may resist the implication that causation and temporality are tightly woven together.

5.5 Against Mellor

In addition to the general worries facing any Causal Theory just outlined, a more specific concern is rooted in the fact that Mellor's argument for Causal Theory does not stand up to scrutiny. As well as noting the criticisms that have been put forward by Daniel Dennett (1999), I will argue that Mellor's argument from temporal perception commits a number of fallacies.

The Cartesian Theatre

Dennett accuses Mellor's argument of relying upon a false conception of the mind, which he terms 'Cartesian materialism'. According to this misguided picture:

> … our streams of consciousness consist of events occurring in sequence, [such] that at any instant every element in that sequence can be classified as either having already occurred "in consciousness" or as having not occurred "there" yet… [I]f that is so, then (it seems) the contentful vehicles of content moving through the brain must be like railroad cars on a track; the order in which they pass by some point will be the order in which they "arrive at" the theatre of consciousness and (hence) "become conscious." To determine where in the brain consciousness happens, trace all the trajectories of information-vehicles, and see what point particular vehicles are passing at the instant they become conscious. (*Ibid*: 144)

The view Dennett describes here is one where the mind is taken to be akin to a 'Cartesian Theatre', where sensory data are presented to the observer like pictures on a theatre screen, such that '…there is a crucial finish line or boundary somewhere in the brain, marking a place where the order of arrival equals the order of "presentation" in experience because what happens there is what you are conscious of.' (*Ibid*: 107). Dennett argues that such a model of the brain cannot be accurate, since there are numerous psychological experiments which disprove it. One such case in point is the phenomenon of *metacontrast*. In cases of metacontrast, a subject is presented with two images in quick succession, such as the following two discs:

First Stimulus   *Second Stimulus*[113]
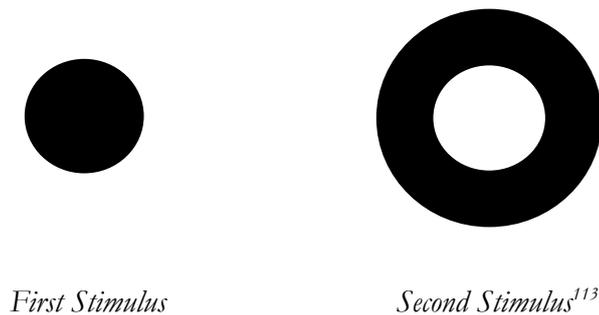
(*Figure 1*: metacontrast)

As Dennett explains, in these cases:

> If a stimulus is flashed briefly on a screen…and then immediately followed by a second "masking" stimulus, subjects report seeing only the second stimulus. The first stimulus might be a coloured disc and the second stimulus a coloured ring that fits closely outside the space where the disc was displayed. (*Ibid*: 141)

What appears to happen in such cases is that the second perception in some way cancels out the perceivers' registering the first perception. It would be tempting to explain this phenomenon by either claiming that (i) the second perception somehow prevents conscious experience of the first stimulus, or that (ii) the second stimulus obliterates any memory of the subject's conscious experience of the first stimulus. There would be no way of deciding between these two explanations. 'The result is a standoff – and an embarrassment to both sides, since neither side can identify any crucial experimental result that would settle the dispute.'[114] (Dennett, *Ibid*:142.)

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[113] This figure has been taken from Dennett (*ibid*: 141).

[114] Original emphasis.

In response to this Dennett advances an alternative 'Multiple Drafts' model, according to which there is no one privileged location in the brain where consciousness occurs. According to the model, there are a variety of sensory inputs from a given event and also a variety of interpretations of these inputs. 'According to the Multiple Drafts model, all varieties of perception … are accomplished in the brain by parallel, multitrack processes of interpretation and elaboration of sensory inputs. Information entering the nervous system is under continuous "editorial revision."' (*Ibid*: 111) The idea is that various sensory inputs will arrive at the brain and be interpreted at different times, so a single event will give rise to a succession of judgements, which we may view as being much like multiple drafts of a story (hence the name). Dennett explains that the Multiple Drafts model deals with metacontrast by maintaining that:

> … the disc was briefly in a functional position to contribute to a later report, but this state lapsed… Drafts that were composed at particular times and places in the brain were later withdrawn from circulation, replaced by revised versions, but none of them may be singled out as definitive of the content of consciousness. (*Ibid.*)

Mellor maintains that 'in order to see that e precedes e*, my seeing e* must include something like a memory-trace of my seeing e' (1998: 144). He maintains that one perceives that *e* precedes *f* by virtue of having a perception of *e* and a subsequent perception of *f*. But, says Dennett, it is wrong to envisage the mind having a set of discrete images flashing in succession through a person's consciousness; this is precisely the view of the discredited Cartesian theatre model. Dennett's charge, in short, is that to view the mind in such a way is to fail to 'distinguish the features of the represent*ings* from the features of the represen*teds*.'[115] (*Ibid*: 147)

Mellor may be able to concede Dennett's objection, however. For, he may argue that all he needs, in order for his argument to succeed, is that *where we do have* such perceptions as in Se and Sf, this would be *sufficient* for one's having the more complex perception (i.e. of perceiving the temporal order, S(*e<f*)). His argument does not require the additional claims that *one must have* the separate perceptions, S*e* and S*f*, in order to have a perception of precedence.

It's not clear how successful this response would be, however. For, if something like Dennett's multiple drafts model is correct, then perception is *never* like this. In other words, it would be a very weak conclusion of Mellor's argument if it merely consisted in the hypothetical claim that *were perceptions of precedence constituted of separate, distinct perceptions, then the causal order of*

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[115] Original emphasis.

those perceptions would ground the temporal order of the perceptions, if it turned out that the antecedent is never actualised. In any case, I won't dwell on this point since there are further reasons to reject Mellor's argument, which do not rest on the truth of any particular model of consciousness.

Against (3)

To recap, the main four steps in Mellor's argument, were as follows: (1) My seeing that *e* precedes *f* entails that my seeing of *e* causes (or in some way affects) my seeing of *f*; (2) the fact that my seeing of *e* causes my seeing of *f*, and the set of other conditions (C), that are required for my seeing of *e* and my seeing of *f* to constitute a perception of the temporal order of *e* and *f*, together entail that I see that *e* is prior to *f*; (3) the set of conditions, (C), entails that I see that *e* is prior to *f* iff my seeing of *e* is prior to my seeing of *f*; (4) the set of conditions, (C), together with the fact that my seeing of *e* causes my seeing of *f*, entails that my seeing of *e* is prior to my seeing of *f*. Or, more formally:

(1) $S(e < f) \models (Se \Rightarrow Sf)$
(2) $C \,\&\, (Se \Rightarrow Sf) \models S(e < f)$
(3) $C \models S(e < f) \leftrightarrow (Se < Sf)$
(4) $C \,\&\, (Se \Rightarrow Sf) \models (Se < Sf)$

Mellor stipulates that his use of the term 'perception' should not be taken to be veridical; one's seeing that *e* precedes *f* need not entail that *e* does, in fact, precede *f*. So, perhaps his usage should be construed along the more liberal lines of 'it seems to one that *x*' or 'one has a representation of *x*'. Yet, if the argument is read in those terms, then it is very difficult to see how the conclusion follows. For, if the kind of perception under consideration is a mere seeming or representation, then the third premise looks to be false. (3) states that one perceives that *e* precedes *f* *if and only if* one's seeing of *e* precedes one's seeing of *f*. But how could *its seeming to one* that *e* precedes *f* tell one anything at all about the *objective* temporal order of the individual perceptions S*e* and S*f*? That is, how could it's seeming to one that something is the case have truth conditions which require that reality matches up to one's experience? It might be, for example, that I am hallucinating and for this reason it seems to me that the clock strikes one before it strikes two, but that by no means requires me to have the individual perceptions of the clock striking one, and striking two. Now, it looks plausible enough that having these two perceptions would be *sufficient* for my having the more complex perception of its seeming

to me that the clock strikes one before it strikes two, but surely this cannot be a *necessary* condition. Therefore Mellor's contention that perceptions of temporal order require temporally ordered perceptions is at best unjustified and at worst false.

Given this problematic result, one might think that Mellor ought to restrict his use of 'perception' to strictly veridical cases. This would be a mistake, however. Mellor feels he must use perception in the broad sense because he wants to be able to allow that 'we can see that something happens on the sun just after a clock strikes one, even though we know (because we know that sunlight takes eight minutes to reach us) that it actually happens earlier.' (1991: 194) However, a further reason (not noted by Mellor) that relations of temporal precedence cannot be perceived in the narrow, veridical, sense, is that such temporal relations are features of the world which have to be *inferred*; they cannot be *directly experienced*. As Robin Le Poidevin attests:

> …it is one thing to form beliefs about order and duration on the basis of our perceptions, and quite another actually to perceive order and duration… [A]lthough we may come to be aware of the temporal features of events, those features are never themselves the objects of our perceptual states… (2004: 110).

The reason for this is that, if we take it as true that whatever is directly perceived must be present, and that whatever is present must be instantaneous (since, if the present had duration, then it would be divisible into earlier and later stages – and hence past and present), then only one instant could be perceived at a time. Since temporal precedence relations hold over durations of time, they cannot be directly perceived in the instantaneous present we have available to us at any one time.[116] What *are* directly perceived are the *relata* of temporal precedence relations; that is, the events, states of affairs, and properties which are temporally located and ordered. Mellor's use of 'perception' is a broad one, then, because it *has* to be. For that reason, there looks to be little reason to accept (3).

Perhaps, however, Mellor could make a similar response here to the one against Dennett's objection. He might well concede that it is only where Se and Sf *do* constitute a perception of S($e < f$) that the temporal order of Se and Sf must coincide with their perceived temporal order. This would mean that Mellor's argument could sidestep the above troublesome cases, since it would not apply to them. Yet, if Mellor were to respond in this

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[116] Perhaps the earliest statement of this kind of argument – that duration (and therefore also temporal precedence) cannot be experienced – comes from St. Augustine in the *Confessions*, Book XI. For a more recent discussion of this see Le Poidevin, 2015.

way, it would then seem inappropriate for (3) C $|=$ S($e < f$) $\leftrightarrow$ (S$e <$ Sf) to involve a bi-conditional. For, the preceding discussion has shown that all Mellor's argument requires is a sufficiency claim (i.e. the left-to-right conditional in (3)).[117] In that case, (3) ought to be amended to read: C $|=$ (S$e <$ Sf) $\rightarrow$ S($e < f$), but it seems the argument would still go through. However, this will turn out to be a small comfort, since I shall now argue that the other premises in the argument are insecure.

Against (1)

(1) can also be called into question. Recall that this premise stated that one's seeing that e precedes f entails that one's seeing of e in some way causally affects one's seeing of f (i.e. S($e<f$) $|=$ (S$e =>$ Sf)). This is because, Mellor contends, in order to see that one event temporally precedes another, there must be some memory trace of the earlier event at the time that the second event is perceived (otherwise one might forget that one has seen e by the time one sees f, and so wouldn't be able to have the complex perception: S($e < f$).) This entailment does not follow, however.

Take the case of my seeing the clock hand pass one before it passes two. It seems reasonable enough to maintain, as Mellor does, that in such a case I would need to have some memory of the clock striking one when I see the clock striking two. Further, it is no doubt true that my seeing that e precedes f would require that both my seeing of e and my seeing of f each play some causal role. But does it follow from this that my seeing of f *must be affected by* my seeing of e? That looks highly dubious, since there is a good case for thinking that all that is causally required for my seeing of f is f itself. Surely what *does* follow is that at the time of my seeing that e precedes f, I have a memory of e, and a perception of f. So what would be a more plausible premise is that my seeing that e precedes f entails that my seeing of e causally affects my seeing that e precedes f (i.e. S($e < f$) $|=$ (S$e =>$ S$e <$ Sf)). But that will not be enough to get Mellor the conclusion he wants.

Against (2)

I will now argue that we should also reject (2) – the premise that the fact that my seeing of e causes my seeing of f and the set of conditions (C) together entail that I see that e is prior to f. This is because (2) encounters various counterexamples. Consider the following case involving

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[117] Perhaps, then, we ought to view C as simply restricting the application conditions.

a perception of a Hermann grid, for example. A Hermann grid is an optical illusion which is named after Ludimar Hermann (1870) who first reported it. The illusion involves the perception of grey blobs or dots which are seen to be located at the intersections of a white grid on a black background, as shown in Figure 2:
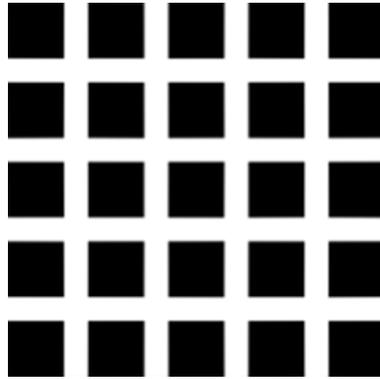
(*Figure 2*: a Hermann grid.)

Suppose, then, a person were to look at Figure 1, and as a result perceive the grey dots along with the black and white shapes. Let g = the black and white, and h = the grey, so then, the perception of the black and white = Sg, and the perception of the grey = Sh. In this case we will have to say that Sh is caused by Sg; h cannot be the cause of Sh, since there is no h. Further, it must be the case that this causal relation is asymmetric; Sh cannot cause Sg, since there is no grey to be seen unless the black and white are perceived. This means that Sg => Sh. However, when we look at Figure 1, it appears that Sg is cotemporaneous with Sh; we don't see the black and white, and *then* come to see the grey. At least, that's certainly the way it *seems* to us, and remember, what is important, for the purposes of Mellor's argument, is the way things *seem* to us to be.

So, in the case outlined, it is not the case that Sg < Sh, and yet Sg => Sh. That is, there is a causal priority between the two perceptions, but no temporal priority. This renders (2) false. For, (2) stated that: if one's perceiving e affects one's perceiving f, this entails that one's perceiving e is temporally prior to one's perceiving f (i.e. C & (Se => Sf) |= (Se < Sf)). But this must be false because the case under consideration is one in which there is causal priority, but where the cause and effect are *cotemporaneous*; causal order does not fix the temporal order.

Perhaps an advocate of Mellor's argument would be inclined to dig their heels in here: 'Surely Se *has* to occur before Sf!' But why should that be so, given the interpretation of

perception we're working with? The only reason one could have for insisting on this would be if one thought temporal priority were a necessary condition of causal priority, but that appeal can't be made given what Mellor is seeking to prove, i.e. that causal order underwrites temporal order. It seems, therefore, that Mellor's argument only works on the basis that the temporal order of the perceptions is already assumed. Mellor needs to find some non-question-begging way of ruling out cases where the two perceptions are simultaneous, but stand in a relation of causal priority, and there appears to be no such explanation available.

The Scope of the Argument

The final point to make about Mellor's argument concerns the scope of its results. Let us suppose that the argument succeeds. Where does that leave us? It gets us the result that *where the causal and temporal dimensions are co-present*, they will be linked. In other words, Mellor's argument delivers the result that in any world in which there are both causal and temporal relations, then the causal asymmetry will underwrite the temporal asymmetry. What Mellor's argument doesn't show, however, is that *wherever there is causal order there is temporal order*, since *that* conclusion would only follow if (i) all causal relata are events, (ii) all causal relata are perceivable, and (iii) it were strictly impossible that there could be no causal order without a temporal order.

Yet, Mellor stipulates that nothing turns on his assumption that causal relata are events; the argument is supposed to work *whatever we take causal relata to be*. However, if causal relata can be facts or states of affairs, then given that these entities are not obviously temporal entities in the way that events are,[118] much further argument is required to show why it couldn't be the case that causal priority relations could not exist without giving rise to temporal ones, i.e. that it couldn't be the case that there be worlds in which there is a causal but not a temporal dimension.

The theist need not be troubled by Mellor's argument, then, even if it is sound. For, the theist can point out first, that God exists *outside* the temporal order, and second, that to presume that all causal relata are events is to beg the question against Divine Causality. In sum, then, even if it turns out that the causal order underwrites the temporal order *in this world*, Mellor's argument has not established the result that in all worlds, or situations, in which there is a causal order there must be a temporal one.

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[118] This issue is discussed further in Chapter V, §2.3.

6. Conclusion

This chapter has examined the claim that causation is a necessarily temporal relation. In doing so, it has explored two main grounds for endorsing this theistically problematic metaphysical thesis: Locality and Causal Theory. I began by outlining an argument advanced by Brian Leftow that purports to show that divine atemporal causation is co-tenable with Locality, and then argued that this argument was fallacious. I next argued that there are putative cases of causation by abstracta and absences, and that by taking on board some suggestions from Maddy and Callard, causation by abstracta can be seen to be a coherent concept. With this in hand, the theist has reasonable grounds for rejecting Locality. The second half of the chapter focussed on Causal Theory. I argued that there are a number of problems facing these theories, and further, that the most widely-discussed argument in favour of it is fallacious. Given these results, theists are warranted in rejecting the CET[119] thesis.

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[119] Causation entails temporality.

V. DIVINE AGENCY

1. Introduction

Not everything done by an agent counts as an action. For example, when a person blinks, there is something that person *does*, but that something is a different *kind* of thing to what a person does when they, say, kick a football. A person who kicks a football, most of us would think, performs an action, but a person who blinks usually does not; blinkings, intuitively, are *not* actions. In order to mark the distinction between actions and *mere happenings*, it is common for philosophers to draw upon the notion of intention. We can say that kickings of footballs are actions because they are events which agents *intend* to perform, whereas blinkings are non-actions, because they are accompanied by no such intention. Intentional actions are very often performed for a reason (or reasons).[120] Following Donald Davidson, we can characterise an agent's having a reason for action in terms of their having a belief-desire pair, such that '[w]henever someone does something for a reason, …he can be characterized as (a) having some sort of pro attitude toward actions of a certain kind, and (b) believing (or knowing, perceiving, noticing, remembering) that his action is of that kind.' (1963: 685)

Amongst theories of action, there is philosophical disagreement with respect to the following two issues: (i) what *actions* are, and (ii) what the *causes* of actions are (or if indeed there are any). With regard to answers to both of these questions, perhaps the most popular view is the Davidsonian one (sometimes referred to as 'the standard story'): (i) actions are bodily movements (events) that (ii) are caused – in the right way – by the beliefs and desires that rationalise them. (*Ibid.*) Since an agent's *acquiring* beliefs and desires itself is an event, the standard view of action (hereafter 'event-causalism'[121]) thus maintains that actions are caused by *events*.

The God of classical theism is the paradigm free, rational, agent: when God creates, sustains, and intervenes, he performs actions, he has reasons for doing so, and he does so intentionally. In the words of Thomas Talbott:

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[120] Though, not always. It seems I can intentionally walk about aimlessly, for example, but have no real reason for doing so.

[121] This is typically referred to as the 'causal theory of action', but I prefer the term 'event causalism', as it provides a better contrast with rival theories.

> [God] provides the clearest example of a rational agent whose perfectly rational actions are the product of neither external manipulation, on the one hand, not random chance, on the other, he also provides the clearest example of both agent causation and the freedom that pertains to rational agents. (2009: 383)

However, the popular event-causal view of action looks to be incapable of explaining divine agency. The advocate of event-causalism maintains that actions are *bodily movements* which are caused by mental *events,* but the theist maintains that God has *no body*, and exists in a *timeless eternity*. Events, however, are supposed necessarily to involve changes, and changes comprise variation across time. So prevalent is the standard story that many philosophers have argued that no sense can be made of the Anselmian God as an agent at all. Stewart Sutherland, for example states: '[t]he conclusion which I draw from … the account of the eternity of God as the timelessness of God is that whatever the religious attractions of the idea, it cannot be combined with belief in an omnipotent, omniscient, *active* God.' (1978: 107), and that to attempt to provide an account of atemporal agency puts us '…in pursuit of the wild goose of a non-tensed action, one that does not involve the possibility of temporal co-ordinates being given to it.' (*Ibid.*) Andrei Buckareff likewise states that 'traditional theism does not have the metaphysical resources necessary for us to be theological realists about divine agency' (2016: 218) It seems, then, that theists are in need of an alternative account of divine action. The aim this chapter will thus be to consider what kind of theory of agency (if any) may best accommodate divine action.

The chapter takes the following structure. §2 outlines the standard event-causal model of agency and offers some reasons for thinking that it cannot be extended to an account of divine action. §3 sketches the main alternative to the standard model, agent-causalism, and argues that it looks promising as an account of divine agency. §4 presents some challenges to the idea that agent-causalism provides an adequate picture of divine action. §5 then outlines Helen Steward's recent and novel approach to agent-causalism. It argues that this account provides the theist with an attractive model of divine agency, one which successfully deals with the problems outlined in the previous section.

2. The Standard Story

2.1 Event-Causalism

As noted, the most popular view of agency is event-causalism, the best-known advocates of which are Donald Davidson (1980) and David Lewis (1986a). The view maintains that an

agent's behaviour counts as an action iff it is caused – *in the right way* – by the appropriate rationalizing mental items. On this view, it is, therefore, an agent's mental events which are responsible for bringing about their actions. The relevant mental events are the agent's coming to acquire a primary reason for action, where a primary reason consists of a belief-desire pair. As Davidson explains, '[w]henever someone does something for a reason…he can be characterized as (a) having some sort of pro attitude toward actions of a certain kind, and (b) believing…that his action if of that kind.' (1963: 685) According to those such as Davidson, actions are not only rationalised in terms of the agent's beliefs and desires; they are *caused* by them. The reason event-causalists consider such mental events to be the causes of actions is that agents typically have numerous reasons for any given action, but only act on *some*, or *one*, of these. For example, I may have the following reasons for wanting to finish my thesis this Friday: (i) in order to go to a party at the weekend; (ii) in order to keep the promise I made to my supervisors; or (iii) in order to be eligible for a job I want to apply for. However, it may in fact turn out that I finish my thesis on Friday because I want to apply for the job. In order to explain why it was that I so acted, it must be that the relevant belief-desire pair for reason (iii) – i.e. my desire to apply for the job, and my belief that finishing my thesis would achieve that – *caused* my action while the other two did not. According to Davidson, then, the event-causalist can demarcate those bodily movements which are *mere happenings* from those which are genuine *actions* by classifying the latter type of event as those which are *intentional under some description* (1971). To take again the cases of blinking and kicking a football, we can say that the former is a mere happening while the latter is properly called an action because whereas kickings of footballs require rationalising mental events, blinkings do not. Actions themselves, on this view, are typically characterised as bodily movements, and as such, are also events.

However, due to the possibility of deviant-causal chains, the event-causalist must specify that bodily movements count as actions *only if* they are brought about by rationalizing mental states which figure *appropriately* in an event-causal history. To see why, consider the following example from Davidson:

> A climber might want to rid himself of the weight and danger of holding another man on a rope, and he might know that by loosening his hold on the rope he could rid himself of the weight and danger. This belief and want might so unnerve him as to cause him to loosen his hold, and yet it might be the case that he never chose to loosen his hold, nor did he do it intentionally. (1980: 79)

So the initiating event must produce the result in an appropriate specific way, and not via a 'wayward' or 'deviant' causal chain.

2.2 Unconvincing Objections to Theistic Event-Causalism

Unfortunately, one who takes God to be an atemporal agent will not be able to invoke the event-causalist's story to explain divine agency. Before outlining the reasons for this (which I take to be decisive), I will first dismiss two less convincing objections to theistic event-causalism.

(i) Simplicity

One objection that may immediately spring to mind with regards to a theistic event-causalism is raised (though not endorsed) by Rebekah Rice: 'If divine actions issue from God's psychological states/events, then they are brought about by 'parts' of God, rather than by God. And of course, being simple, God does not have parts. So [theistic event-causalism] is false.' (2016: 24) Rice – herself an advocate of theistic event-causalism – finds this objection wanting, because she claims that 'God's psychological states constitute events no more parts of God than my morning walk constitutes part of me' (*ibid.*). Rice appears to be right about this. Psychological states (and the bodily events that might accompany them) look to be rightly classed not as parts of a *person*, but as parts of a person's *life*.

However, proponents of divine simplicity usually feel a need to deny any distinction between even God and his life. Aquinas, for example, argues that '[God] must be his own Godhead, His own life, and thus whatever else is predicated of him' (*ST* Ia 3.3), and further, that it is a mistake to think that God has any properties, if these are seen as being independent of him: 'in God, being good is not anything distinct from him; he *is* his goodness' (*SCG* I.3.8). Hence, such persons will consider the distinction between God and any such life a problem in itself – especially if God (a supposed *simple*) has a life comprising *distinct* mental events, since that would make an identification between God and his life impossible.

Here we should ask ourselves, though, whether this kind of metaphysical complexity (between God, his life, and his mental events) is one the doctrine of divine simplicity *should* rule out. There are, of course, different interpretations of divine simplicity, but what seems to motivate this claim is the doctrine of divine aseity – the thesis that God exhibits maximal independence such that he does not depend on anything for his existence. The thought is that God should not possess parts because (leaving aside the possibility of priority monism) wholes at least typically depend upon their parts for their existence. Given this, though, it seems that only on an unnecessarily strict reading of divine aseity would one be led to believe that God cannot even depend upon his own psychological states in any way. To depend, in some sense,

upon one's own psychological states, is not the kind of dependence which would be involved, say, in one's dependence on one's physical parts. Dependence on physical parts would be problematic for a divine being, because physical parts are corruptible, mutable, entities which can exist independently of the whole. Psychological states, however, are not parts in any of these problematic senses. It seems then, that the doctrine of divine simplicity – if motivated chiefly by the doctrine of divine aseity – provides poor motivation for ruling out God's having the kind of psychological states that event-causalism requires. In the absence of other reasons for thinking that God's possession of psychological states that are distinct from him would be problematic, event-causalism should not be ruled out by considerations of divine simplicity.

(ii) Uncaused causes

The event-causal picture is usually motivated by a desire to uphold what is sometimes referred to as 'the network model' of causation, which has it that causation is a network of causal links between events. On this picture, all events are caused by *prior* events (see, e.g. Davidson (1967) and Lewis (1973c)). Yet, on a timeless conception of divine eternity there is no sense to be made of God's mental events having *prior* causes. Further, under theism, when God acts, he is not compelled or determined to do so by any events which are external to himself. As Talbott notes, '[b]ecause neither God's existence nor any of his actions is the product of sufficient causes external to himself, he is the uncaused cause of every event he causes to occur.' (2009: 378) There are, then, (for classical theists) two problems with the idea that every event has a prior event as a cause (i) divine atemporality, and (ii) God's being an uncaused cause.

What might theists say in reply? One important thing to point out is that if the universe has a beginning, then it is false that all events are caused by prior events, whether God (supposedly) acts to cause that beginning or not. The events at the beginning of time cannot be preceded by prior events as a matter of definition (if events are temporal entities), so we may be worried about endorsing this thesis quite apart from theistic considerations. A second point is that the first worry (about God being an uncaused cause) seems to take for granted that the event (or events) which precede God's action will stem from something *apart* from God in some important sense. However, if what (event) precedes God's intention is itself a divine mental state, and if what (event) precedes *that* mental state is itself a divine mental state, and so on *ad infinitum*, then the problem loses its bite: God is still an uncaused cause if what precedes God's action is something that is *in God himself*. Of course, this would commit us to thinking that God's action is preceded by infinitely many thoughts, but so what – it's God –

and we think of him as having infinitely many thoughts anyway!

2.3 More Convincing Objections to Theistic Event-Causalism

(i) Atemporality

Even if we do not wish to commit ourselves to the thesis that every event has an antecedent event as a cause, the preceding discussion has brought a more pressing worry to the fore: if causal relata are events then God cannot be an *a*temporal cause. First, there is good reason for thinking that events involve *changes*, and change implies time – after all, for a thing to change just is for it to be one way at one time, and different at another; events are necessarily spatiotemporally located entities.[122] Less controversially, though, events are happenings, and things happen at times; the idea of something happening, then, is a temporal notion. The event-causalist maintains that it is an agent's coming to acquire a belief-desire pair which causes their action, but talk of God's *coming to have* certain beliefs and desires makes no sense on the atemporal conception of divine agency. Presumably, a timeless God holds his beliefs and desires for all eternity; they are not mental entities which God *comes to* acquire, nor *comes to* act upon.

(ii) Indeterminism & Control

A second concern for a theistic event-causalism concerns the manner in which it attempts to accommodate a libertarian conception of freedom. Traditional theism typically adopts a libertarian notion of free will for both divine and non-divine agents. Libertarianism maintains that free will is not compatible with determinism. Under this view, when an agent engages in a free action, she will have a number of alternatives open to her, and it will be undetermined, up until the moment of her decision, which course of action she will pursue. According to St. Thomas Aquinas, since God is the most perfect conceivable being, he must possess free choice in the most unrestricted (i.e. most perfect) sense possible. Laura L. Garcia puts the point thus: 'the perfection of freedom involves not only being a master of one's own acts or willing for one's own sake, which might be construed in a deterministic way, but also a sort of election which is unnecessitated – the ability to choose freely among genuinely open alternatives.' (1992: 191) Divine libertarian freedom is also thought to follow from divine omnipotence. The thought is that, given omnipotence, there could be no possible restriction on God's power to

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[122] See Joseph Diekemper (2014) for a recent defence of the thesis that events are essentially temporally extended entities.

will whichever course of action he chooses, and no possible impediment to his bringing about whichever state of affairs would result from his acting. A further reason as to why classical theism has adopted a libertarian account of free will is in order to invoke a free will defence for the problem of moral evil. The thought goes: if it were the case that God made people such that they always chose the good, then there wouldn't be any moral evil. Yet, God would not make us in such a way because it is God's desire that we do have free will. Therefore, God must have made us such that we have the ability to choose otherwise – to determine which course of action we take. Such an ability, however, permits that we choose to perform immoral actions and commit evil, and this explains the existence of moral evil. It is often argued that only a libertarian conception of freedom can make room for this.[123]

There are strong reasons for thinking, then, that any event-causal account of divine action ought to deny the truth of determinism in order to account for libertarian free-will. This means that any event-causalism endorsed by the theist will account for libertarian freedom by admitting some kind of causal indeterminacy. Often, standard (i.e. non-theistic) event-causal accounts will specify that indeterminism comes in at some stage during the process leading up to the agent's decision or action. Some event-causalists locate the indeterminacy at *some early stage* in the *deliberative process*. Alfred Mele (1995), for example, presents a view under which an agent acts freely when it is undetermined which of the agent's nonoccurrent beliefs comes to mind when deliberating. Others locate the indeterminacy between *the immediate causal antecedents of the action itself*; where the prior deliberative events that cause the decision to do A non-deterministically cause it, and until the agent makes that decision, there remains a chance that she will instead decide to do something other than A. Robert Kane (1998), for example, argues for a view according to which an agent, x, acts freely when at some point within the set of events that contributed to x's making of her decision, there were some free actions by x – acts of will – that were not causally determined (actions that were 'self-forming').

However, for the theist to adopt an account of divine agency which relies on introducing indeterminacy into the causal production of the effects of God's action looks highly problematic. If God is the perfect rational being, he will always intend to perform whichever action would produce the best possible outcome, and will always know which course of action is best. For this reason, it is at best not obvious why there should be any need for (or room for) the idea that God need rely on an indeterministic process in order to freely actualise whichever events he chooses to bring about. Moreover, deliberation itself could be

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[123] Though, most compatibilists do claim to make room for the ability to do otherwise.

seen as a sign of imperfection since it suggests an agent's uncertainty concerning the best course of action. Yet, a perfectly benevolent, omniscient, rational being would lack such uncertainty. Indeterminacy of will, then, looks to undercut divine rationality and omniscience. Talbott reasons similarly:

> … because it is necessarily true that God never acts contrary to his own (correct) judgment concerning the best course of action, there can be no question of his actions being wholly, or even partially, a matter of random chance. So even when God acts from an inner necessity, he remains the agent cause of his actions in just this sense: Each of them reflects his own *perfectly rational judgment* concerning the *best course of action*; none of them is the product of sufficient causes external to himself; and *none of them is even partially a matter of random chance*. (2009: 378)

> … insofar as the God of Anselm, Spinoza, and Leibniz *has decisive reasons* for his most important actions, these actions are in no way the product of chance and *in no way a random selection between alternatives*.[124] (2009: 383)

A further problem for invoking an indeterministic deliberative process is that deliberation seems to signify a *process* – a temporally extended period of consideration of alternatives. There must be a contemplation of options before God decides, and then wills, a particular course of action. However, 'if God first contemplates the different possibilities which he might create and then chooses one of these, his act of will must temporally succeed his act of knowledge.' (Garcia, 1992: 194) Thus, in deliberating, God is subject to change, and consequently engaged in a procedure which is *necessarily temporal*. As Paul Helm (1988: 179) has also noted: '… by supposition God is eternal and hence necessarily has no time in which to contemplate a range of possibilities before deciding which, if any, to actualise.'[125]

The most pressing worry stemming from indeterminacy, however, is that it suggests that God is not in complete *control* of his actions. Theories of free-will which invoke indeterminacy are very often presented with the objection that if an agent's action is the result of an indeterministic or chancy process, then the agent is no more in control of their action than they would be were determinism true. For, the libertarian stresses that for an agent to genuinely enjoy free action, the agent must be in control of their action; their action must be 'up to them'. Yet, an agent is not in control of any indeterministic or chancy process, and therefore must lack the control the libertarian purports to account for. Hence, Peter van Inwagen states: 'If an agent's act was caused but not determined by his prior inner state, and if

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[125] Though, see Laura L. Garcia (1992) for a discussion of the idea that whilst there is no *temporal* priority between God's knowing that A is the best, and God's willing that A, there can still be *conceptual*, or *logical* precedence.

nothing besides that inner state was causally relevant to the agent's act, then that agent had no choice about whether that inner state was followed by that act.' (1983: 149) Now, if this is a criticism which ought to be taken seriously in the case of human agency, then it is *far more* troubling in the divine case. A perfectly rational, free agent ought to be in control of their actions. Yet, the appeal to indeterminacy undermines this. In summary, then: the only way for the event causalist to make sense of libertarian free will is to introduce indeterminacy of causes prior to an action, but such indeterminacy is at odds with divine control and rationality.

(iii) The Disappearing Agent

A third line of objection against the theist's adoption of an event-based model of agency comes from the often-cited worry that, in referring to the mental states of the agent as the causes of the action, the event-causalist is unable to respect the idea that *agents* themselves play any role in their actions. This objection is pressed by David Velleman, who argues that 'the occurrences [event-causalism] mentions in the agent are no more than occurrences in him, because their involvement in an action does not add up to the agent's being involved', and that '[w]hen reasons are described as directly causing an intention, and intention as directly causing movements, not only has the agent been cut out of the story, but so has any psychological item that might play this role' (1992: 125). Indeed, according to some champions of this objection, once the agent is removed from the account, it ceases to be an account of action at all. Richard Taylor stresses that the idea of my causing something should not be understood in terms of an *event*, *state* or *process causing something*:

> [I]f we adopt this conception of causation—namely, that of a (perhaps complex) relation between states or events—then, significantly, it is no longer possible to speak of men, for example, as literally causing things to happen, for a man is plainly an object rather than event in the usual sense. In the light of this obvious fact it is usual for philosophers, in speaking of men causing things to happen, to assume that such a locution must be really an elliptical way of expressing a relationship between events—between, for instance, certain inner 'volitions' or 'acts of will,' regarded as causes, and certain bodily motions, regarded as their effects; for a man cannot be related to anything as one event to another. (1966: 16)

Agent-causalists such as Roderick Chisholm (1966) argue that if action involves the agent's body being pushed around by states or events within the agent, then the agent's body will not be pushed about by *the agent*, strictly speaking. This is just to say that the event-causalist picture of action has us believe that the states or events are the things which control the agent, rather than the agent themselves. Moreover, according to A.I. Melden: '[i]t is futile to attempt to explain conduct through the causal efficacy of desire—all that can explain is further

happenings, not actions performed by agents… There is no place in this picture…even for the conduct that was to have been explained.' (1961: 128-9) For these reasons, the event-causal story fails to provide anything much in the way of explanation at all.

Again, if this objection is decisive in cases of human action, it ought to be taken even more seriously in the divine case. The theist should look to provide an account of divine agency which respects divine aseity (independence), omnipotence, freedom, control, and responsibility etc. To repeat Leftow's words, cited in Chapter II, 'there is no digging deeper than God; *God and nothing else* constitutes the basic causal context for the rest of reality.'[126] (2012: 6) If the theist is going to respect these ideas with real conviction, then there is reason here for them to eschew the event-causal account of divine agency.

The above discussion has shown that a model of divine action which points to divine mental states as causes of God's actions is highly problematic. As a result, I contend that the theist ought to steer clear of an event-causal view and pursue an alternative type of model of divine action. Hence, I will now turn to discuss the agent-causal view.

3. Theistic Agent-Causalism

3.1 Agent-Causalism

One type of theory which stands in opposition to – and which claims to be more successful than – event-causalism, is *agent*-causalism. According to a traditional version of agent-causalism, an event counts as action if and only if it is caused by an agent. A strong motivation for agent-causalism is the aforementioned complaint that event-causalism, in invoking mental events as causes of action, leaves no room for the agent to play a causal role in their action. To avoid this problem, agent causalists endorse a distinct type of causal relation present in action – an agent-causal relation which holds between an agent (*qua* object) and the events they bring about. As Rice explains, the distinction between event- and agent- causalism comes down to this:

> …a disagreement about what sort of item (or items) occupies the left-hand position in the causal relation. For [event-causalism], the left-hand position is occupied by mental items within the agent,

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typically construed in terms of mental events (e.g. belief/desire pairs or intentions). For the agent-causal theory, it is the agent herself (that is, a substance) which does the causing. (2011: 333)[127]

There are, of course, different ways of fleshing out the agent-causal view (and some of these will be considered below), but what is central to any agent-causalism is the idea that the causes of actions are agents (i.e. substances), and *not* events.

In contrast to the event-causalist, the agent-causalist strictly denies that any events brought about by an agent in her acting are causally determined by prior events. Further, the agent-causalist (typically) maintains that the causal relation involved in bringing about actions is of a wholly different kind to that which is involved in the production of mundane events, or mere happenings. The crucial idea behind agent-causalism is that whilst substances (and hence agents) are *causes*, they themselves are not the kinds of things which can be *caused*. A person may have the ability to smash a window, but there is little sense to be made of the idea that a person, *qua* substance, themselves can be caused. Of course, we can cause a person *to exist*, and we can cause something to *happen to* a person, but there is no sense in which we can be said to cause *a person*; and likewise with other kinds of objects). Given this, the agent-causalist states that an agent is 'in a strict and literal sense an originator of her free decisions, an uncaused cause of them.' (Randolph Clarke & Justin Capes, 2015: §3) Because the action originates in the agent, and the agent is uncaused, this is purported to allow room for genuine free action. The agent has a plurality of alternatives open to her, and she truly determines which of those to perform. Given this, it seems that agent-causalism could prove useful for the theist in a number of ways.

3.2 Theism & Agent-Causalism

To begin with, it looks as if agent-causalism – unlike event causalism – can respect the traditional theistic conception of God as a *prime mover*, an *uncaused cause*. Indeed, it looks as though the idea of agent causation may itself *derive from* Aristotle's notion of an unmoved mover: 'Whether a particular thing happens may depend on a series of causes that 'goes back to some starting-point, which does not go back to something else. This, therefore, will be the starting-point of the fortuitous, and nothing else is the cause of its generation.' (1998, Book VI) Relatedly, the traditional versions of the cosmological argument seem to call for agent (or

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[127] There are also disagreements about what occupies the right hand position amongst agent-causalists. For example, Randolph Clarke (2003) maintains that it is an action that the agent causes, whereas Helen Steward (2012) explicitly denies that actions are caused, favouring instead things such as bodily movements.

substance) causation: if all (contingent) events are caused by other events, then a chain of events will only ever lead us to an infinite regress of antecedent event-causes, unless we can at some point find an uncaused cause to terminate the regress. Since all events must have prior causes, the first cause must not itself be an event. Agent-causation therefore seems to go hand-in-hand with the view of God as creator. Randolph Clarke explains this thought as follows:

> … when someone acts, he does not passively undergo change; rather he makes something happen, initiates something, brings something about. However, it is said, when prior events alone cause us to move in one way or another, we are passive with respect to the resulting motions. We are, on such occasions, moved rather than self-moving. We are truly active only when we are ourselves the ultimate causes of what we do. (2006: 219)

Agent causation, unlike event causation, also more readily respects the traditional theistic claim that God is *immutable*, since, on the face of it at least, it looks as though substance causation can make room for divine causal activity without needing to make reference either to any change in God's mental states, or to temporal processes leading up to God's action. Moreover, because substances are not necessarily temporal entities in the way that events are – that is, they do not essentially involve changes – agent causation makes way for divine *atemporality*.

As I argued in §2.2, if God is to exhibit the highest possible independence and control, then he had better not rely on any indeterministically caused beliefs and desires in order to act freely. An appeal to agent causation allows the theist to explain how it is that God has ultimate control over the consequences of each of his actions. This line of thought appears to be supported by William Alston when he states that:

> God's activity is the activity of a free agent in the most unqualified sense. Not only are the things He directly brings about the result of 'agent causality' rather than 'event causality', even where the events or states are states of His own psyche; it is also the case, if this is indeed a separate point, that no exercise of this agent causality is determined by anything, not even by states of Himself. (1988: 269)

Whereas the event-causal picture seems to afford the agent little control over their actions, agent-causalism stresses that it is the agent who is responsible for the results of her actions; there is no 'pushing and pulling' of the agent by her beliefs and desires. Agent-causalism, then, respects *divine aseity*, since it presents a clear picture of God determining his actions (or the consequences of his actions) without his being determined to do so in any sense.

An additional, more general motivation for an agent-causal view is that *prima facie* at least, it doesn't make sense to think of events as having powers. This thought is shared by a

number of people, including, E.J. Lowe (2008) and Helen Steward (2012). Steward reasons thus:

> [W]e must be careful not to mix up metaphysics and epistemology. It may be right to say that if we want an explanation of why the alarm clock went off, it will be best to cite the event that triggered it… But as Lowe has powerfully argued, it may be a category mistake to suppose that events do the causal work, since they are not the sorts of things that have causal powers. It is Lowe's view that only substances have causal powers… How can something to which it makes no sense to attribute a causal power do causal work? (*Ibid*: 209)

As I argued, in Chapter II, theists ought to be realists with regards to causal powers and dispositions, since a powers ontology provides them with the best account of God's relation to the laws of nature. Given this, the following argument for agent-causation may be presented:

[P1] There are powers

[P2] Powers must be attributed to either events or objects (including agents)

[P3] Events cannot have powers

[C1] Objects (including agents) have powers

[P4] If entities have causal powers, then those entities do causal work

[C2] Objects (and agents) do causal work

Therefore, to the extent that the theist has reason to endorse an ontology of powers (i.e. dispositional properties), they have motivation to endorse agent-causation.

4. Problems Facing Divine Agent-Causalism

In this section I address a number of problems for theistic agent-causalism. The first, due to C.D. Broad (1952) can be dealt with fairly swiftly. The other three cannot be dealt with quite so easily, and so I will simply outline those here, before I move on to consider some possible solutions to them in §5.

4.1 Broad's Objection

The objection against agent-causation levelled by Broad is (more) general in that it does not only arise in the context of theism. Broad asks: 'How could an event possibly be determined to happen at a certain date if its total cause contained no factor to which the notion of date

has any application? And how can the notion of date have any application to anything that is not an event?' (1952: 215) Broad's point is that since, according to agent-causalism, the causes of actions are agents (i.e. substances), and not events, there will be no possible explanation as to why an action took place at a particular time. The agent-causalist cannot appeal to an agent's mental events – their coming to have certain beliefs and desires at time t_1, say – in order to explain why they acted at time t_2. For such an appeal would effectively concede the claim made by event-causalism, that it is mental events which do the causal work in action. One might think that Broad's objection is particularly pressing in the case of divine action, though, since it is not just that we cannot appeal to God's coming to have certain datable mental states in order to explain why his actions have datable consequences, but also that God is not (on the classical picture) in any way temporally located, and so has no mental events in any case.

There have been a number of attempts to respond to this objection. I shall not, however, attempt to outline them here since I wish to argue that, despite appearances, Broad's objection simply misfires when targeted towards divine agency. The reason is this: if it's the case that God has atemporal existence, and so bears no temporal relations to anything whatsoever, then, it's not just that God cannot have any mental events, but that it would be a mistake to claim that any of God's actions are temporally located *at all* on this view. Consider a specific case of divine agency, creation. Now, if God brings about the existence of the universe, and exists outside the temporal order, then it follows that God is creatively (causally) responsible for bringing about the entire spatiotemporal manifold. Therefore, God's act of creation cannot itself be temporally located; it does not occur in any *temporal* sense, so there will be no time at which God creates. It follows from this that it simply makes no sense to ask what accounts for God's creating when he did as opposed to some other time. There is no 'when' in this model, so the question has no application.

The most obvious move for Broad to make here would be to claim that without a temporal location, there could be no cause, for it is a requirement of causal relata that they be temporally located. However, I argued in Chapter IV that the reasons for thinking this are unconvincing. Therefore, without further argument, this charge simply begs the question against the proponent of divine atemporality.

4.2 Extant Models & Rice's Dilemma

More pressing problems for theistic agent-causation arise when we delve a little deeper and look at the particulars of the extant models of agent-causation. For some of these appear not

to easily accommodate divine agency. I consider three of these, due to Thomas Reid, Timothy O'Connor, and Randolph Clarke, below.

(i) Reid

Firstly, consider the account presented by Thomas Reid (1895). Like other agent-causalists, Reid maintains that every free action involves an ontologically irreducible causal relation between an agent and a volition that either triggers or wholly constitutes that agent's action. Timothy O'Connor outlines the view as follows:

> According to Reid, an agent acts freely just in case he exerts the power to directly cause an action-triggering volition, although also having (what this first condition implies) the power to refrain from causing it. So, in contrast to necessitating (deterministic) causation, the power to bring about some event is quite often unexercised, even though all the conditions necessary for its exercise obtain. (2000: 45)

According to Reid, the agent-causal relation stands between an agent and their action-triggering volition, where, the latter of these, according to O'Connor is 'akin to an agent's coming to have an intention to act immediately in a certain way.' (*Ibid*: 44) The agent-causal relation, on Reid's view, appears to consist in the exertion of active power. For Reid, free action occurs when the agent exerts the power to directly cause an action-triggering volition. This power is a two-way power, since the agent also has the power to refrain from producing it. He states:

> I consider the determination of the will as an effect. This effect must have a cause which had power to produce it … If the person was the cause of that determination of his own will, he was free in that action, and it is justly imputed to him, whether it be good or bad. (1895: 88)

I presume that Reid considers an agent's causing their action-triggering volitions to be a *basic act* – where a basic action is an action which is simply done, but *not in virtue of doing something else* (i.e. where 'someone φs by ψ-ing, ψ-ing is said to be more basic than φ-ing; and the basic act is defined as the one than which no other was more basic.' (Jennifer Hornsby & Naomi Goulder, 2001: §2)). Reid makes sure to distance his view from event-causal accounts by insisting that when the agent exercises her will, she is not compelled to do so by any state of mind or external circumstance. He says:

> If, in any action, he had power to will what he did, or not to will it, in that action he is free. But if, in every voluntary action, the determination of his will be the necessary consequence of something involuntary in the state of mind, or of something in his external circumstances, he is not free; he has not what I call the liberty of a moral agent, but is subject to necessity. (1969: 599)

I represent what I take to be Reid's account – which I term Reidian agent-causation (RAC) – with the following model:

(RAC): $a \longrightarrow\!\!\!\!» \text{ATV}$

Where:

a	= the agent (which is a substance-cause)
$\longrightarrow\!\!\!\!»$	= the agent-causal relation (which consists in the exertion of active power)
ATV	= the action-triggering volition (which is the effect; a mental event)

Reid anticipates the objection that this model will lead to an infinite regress of choices corresponding to every free action when he states:

> 'Liberty', they say, 'consists only in a power to act as we will; and it is impossible to conceive in any being a greater liberty than this … To say that we have power to will such an action, is to say, that we may will it, if we will. This supposes the will to be determined by a prior will; and, for the same reason, that will must be determined by a will prior to it, and so on in an infinite series of wills, which is absurd.' (1969: 501)

Reid explains that such an objection rests on a misunderstanding, since, according to the RAC model, an agent exerts their active power *directly*, and so the exertion of active power *is not itself a volition*. Therefore, no prior volition is required to bring about an agent's action-triggering volition, and hence, the regress cannot get off the ground. On this model, agents determine their actions, but *agent-causings* are themselves *uncaused*; there is no cause of an agent's agent-causing their volition. Furthermore, as O'Connor explains, the exertion of active power 'according to Reid, *is not any kind of event at all*. Rather, it is the instantiation of a causal relation between agent and volition, and Reid does not consider this to be an event.'[128] (2000: 47) According to RAC, then, the only events present in action are (a) the action-triggering volitions, which stand on the right-hand-side side of the agent-causal relation, and (b) whatever the volitions cause.

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[128] Emphasis added.

O'Connor claims that 'Reid never squarely addresses the further question of why the obtaining of a causal relation between agent and volition (an exertion of active power) doesn't qualify as a kind of event.' (*Ibid*: 48) O'Connor then poses the following objection to the Reidian model. He asks of the causal nexus, taken as a whole, why *it* does not count as an event. He asks:

> It [the causal nexus] is not, to be sure, a prior event that produces the willing. But isn't it a causally complex event, having the willing as a component, analogous to the way temporally extended complex events of the event-causal type have various shorter events as parts? (*Ibid*: 48-9)

O'Connor seems to be suggesting, then, that there is no good reason for thinking that a particular instance of RAC is not itself an event, *E*, i.e.:

E[a —» ATV]

The model here is exactly the same as RAC above, except that the causal nexus – the relata, together with the relation of active power – constitutes an event. Why does O'Connor think that the exertion of active power drags the agent into an event? I take his reasoning to be twofold. Firstly, since the causal relation is identified by Reid to be the exertion of *active power*, then this is a relation which on the face of it seems to involve temporal sequence. For, it seems the agent must go from the state of having a latent power to exerting this power and subsequently causing the relevant volition; given these changes in states, it looks like the relation between agent and volition must indeed be an event. Thus, O'Connor asks:

> How shall we think of this primitive mental action at the core of this larger action? Does it simply consist…of an existent (agent-causal) relation alone? I think that this suggestion is ill-conceived, for the reason that the production of the internal event is not to be identified with the instantiated relation alone, somehow isolatable from its relata, but rather it is the complex event or state of affairs, *S's production of e*. (1995: 11)

Secondly, O'Connor appears to be assuming that causation is necessarily a temporal relation. 'After all, don't agent-causal relations obtain at certain times and not at others? If so, aren't such originating activities things that happen?' (2000: 49) Given O'Connor's assumption here, it will simply follow from the fact that when any causal relation obtains both it and (*a fortiori*) its relata must occur at some time or other.

O'Connor certainly seems right about this, at least in cases of worldly, non-divine, agent causation. In worldly cases of agent-causation, it certainly does look as though we would be forced to accept that in producing an action-triggering volition, an agent would need to go from being in a state of not bearing a causal relation to a volition at some earlier time, t_1, into a state of bearing this relation to a volition at some later time, t_2. Therefore, as O'Connor says, the relation is not isolatable from its relata. If I produce an event, then given that, as a matter of fact, this production will take time to occur, I will instantiate the agent-causal relation at some times and not at others. Therefore, my being so related to my volition would itself constitute a further event.

However, there may be room for the theist to make an important qualification here with respect to *divine* action. O'Connor's objection rests on the assumption that action-triggering volitions occur at some times and not others. However, since our theist takes God to be atemporal, this is a claim they will need to reject from the outset in the case of divine action; God is outside of time, *ipso facto*, none of his mental states are temporally located, and therefore must be taken to be just that: *states* (rather than events). Yet, since states of affairs are not necessarily temporally located, there is no reason to think that God's bringing about his volition constitutes an event. On a Reidian model of divine action, then, I am suggesting, the following denotes a state of affairs, *S*:

$$S[\text{God} \longrightarrow\!\!\!» S[\text{ATV}]]$$

Since God exists in a timeless eternity, any action-triggering volitions, I contend, are not temporally locatable mental items – *there are no changes in what God wills since he wills what he wills eternally*. A divine ATV, therefore, is also a mental *state*, not an event.

The obvious problem for a theistic RAC model is to explain how the divine ATV relates to the events which it brings about. Take creation *ex nihilo*, and divine conservation, for example, and suppose that the following holds: God agent-causes his ATV via a direct exertion of active power, and this in turn brings about the existence of the universe. One might wonder: since the world contains events and changes, is it not the case that God's *volitions event-cause worldly events*?

$$S[\text{God} \longrightarrow\!\!\!» S[\text{ATV}]] \rightarrow E_1, E_2, E_3, \ldots E_n.$$

There are two responses to make here. First, on the substantival model of creation and conservation I argued for in Chapter III, God *does not directly bring about worldly events*. Rather, he creates *ex nihilo* (i.e. causes) the spatiotemporal manifold, along with the initial matter contained within it. On this model, it is the worldly creatures and objects which are causally responsible for worldly events, not God. Secondly, the traditional theist will, I think, need to accept that the relation between God's ATVs and the world is *not* an event-causal relation. Again, if God exists in an atemporal eternity, then by hypothesis, he does not and cannot instantiate any temporal properties or bear any temporal relations. This must, therefore, be viewed as a *stative* relation.

But the real problem with Reid's model, in my mind, is that it fails to say anything about how it is that God acts *for a reason*. This is a problem which is often presented against agent-causal models of action. Indeed, Rice argues that '*no* version of the agent-causal theory adequately accounts for what it is to act for a reason. And because of this failure, the agent-causal theory offers an unsatisfying account of rationalizable action (action that is done for a reason)…'[129] (2011: 333). Richard Swinburne, for example, states that 'God, like man, cannot just act. He must act for a purpose and see his action as in some way a good thing' (2013: 140) and that 'nothing would count as an action of God unless God in some way saw the doing of it as a good thing.' (1991: 98) Reid's model, however, makes no reference to the reasons for which God acts – it implies that reasons play no causal role in divine action at all. Given this, perhaps the theist could take on board the details included in O'Connor's own model of agent-causation (an account which is, in fact, developed from Reid's).

(ii) O'Connor

On O'Connor's account, an agent brings about a complex intention which refers to a desire that the agent has prior to, and at the time of, their action; the agent's desire is included in the content of their intention. As Rice explains, '[t]hat desire explains the agent's acting as she does in virtue of its being built right into the action-triggering intention.' (2011: 337) By way of illustration, consider the following example. Suppose I want to kick a football. According to O'Connor, this intention to kick the football will not be sufficient in order for me to complete the action. The intention must have a certain content; I must form the intention to kick the football for a reason. Perhaps in this case, it is to score a goal. Then, on O'Connor's account, my kicking of the football will be caused by my agent-causing the *complex* intention *to kick the*

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[129] Emphasis added.

ball in order to score a goal. Given this, O'Connor's view purports to provide an account of what it is for an agent to act for a reason. We can therefore represent O'Connor's view in this way:

Agent —» intention (which includes a set of desires) → action

As with Reid's view, the first arrow represents the agent-causal relation. The second arrow represents the event-causal relation. O'Connor spells out his view in greater detail with the following set of conditions which he claims are sufficient for explaining an action in terms of an antecedent desire:

> The agent acted then in order to satisfy his antecedent desire that Θ if
> 1. prior to this action, the agent had a desire that and believed that by so acting he would satisfy (or contribute to satisfying) that desire;
> 2. the agent's action was initiated (in part) by his own self-determining causal activity, the event component of which is the-coming-to-be-of-an-action-triggering-intention-to-so-act-here-and-now-to-satisfy-Θ;
> 3. concurrent with this action, he continued to desire that Θ and intended of this action that it satisfy (or contribute to satisfying) that desire;
> 4. and the concurrent intention was a direct causal consequence (intuitively, a continuation) of the action-triggering intention brought about by the agent, and it causally sustained the completion of the action. (1990: 86)

What condition 2 stipulates is that for an agent to act, she must cause, not just an intention to act, but an intention which includes reference to her reason for action. On this view, I cannot act by simply intending to kick a football, I must intend to kick the football in order to score a goal, for example. It should be clear, then, how O'Connor's view can be seen as an advance on the Reidian model in terms of its explaining the rationality of action.

Interestingly, O'Connor claims that he is hesitant to say that these are *necessary* conditions because of 'the rather extraordinary case of the possibility of divine action in creation.' (2000: 85, fn1) This is because, on the traditional theistic picture

> … there is no change in God as a consequence of His creating the world. (Were He to have created a different world, or none at all, His intrinsic state would have been exactly the same.) … sense can be made of this idea by conceiving God's intention to create not as a purely intrinsic state—one that would vary, depending on which world He created—but as a causally relational state between Himself (whose intrinsic state is properly characterized as a state of willing Himself) and the resulting creation. (*Ibid.*)

I agree with O'Connor here that the theist must maintain that in creating, there is no intrinsic change in God. However, I don't think the theist need commit themselves to the idea that

there is, nonetheless extrinsic change. Since, on the model of atemporal divine eternity, it will be the case that God has created the world, creation is not an event, it is not something that occurs. Nonetheless, surely the counterfactual that, had God not created the world, he would have been in a different intrinsic mental state is true – presumably, he would have had different desires, intentions, etc. Presumably, O'Connor would only require the denial of *that* claim if God were *temporally* eternal.

In any case, I think we can allow that 1-4 are necessary for divine action, provided that we parse them in non-temporal terms. We could make use of Laura L. Garcia's suggestion that (whilst there is no *temporal* priority between God's knowing, for example, that action ψ is the best, and God's willing that ψ, there can still be *conceptual*, or *logical* precedence. She suggests that: '[w]e can distinguish various aspects of the divine intellect and will which bear logical connections to one another without turning these distinctions into a temporal sequence ... ' (1992: 195). The idea is that the proponent of the atemporal conception of divine eternity maintains that God's willing the universe to exist is posterior to, in the sense of being dependent upon or being informed by, God's knowledge of the possible worlds he could create, but this relation of priority is to be understood in terms of 'relations of dependency within God's one eternal act.' (*Ibid*) So, if the theist were to adopt Garcia's model of the relation between God's various mental states, then they could maintain that it does not follow from the fact that God's choice of this universe depends upon his knowledge of possible universes he might create, that his choice constitutes a change. Rather, God might have eternally willed that this universe exist, even though that choice was eternally informed by his conceptually prior knowledge of all the possible worlds he could actualize.

Despite how promising O'Connor's account may seem, it cannot, unfortunately, satisfactorily account for what it is for an agent to act for a reason. As Rice says, this model is 'subject to an objection that harkens back to Davidson's distinction between an agent's having a reason for action, and her acting *for* that reason.'[130] (2011: 338) This is because, on O'Connor's model, an agent's desire plays no role in her forming an intention. The intention itself comes about via the agent-causal process, and is itself uncaused. 'The desire, according to O'Connor, is not even a partial cause of the action-triggering intention (nor is it a partial cause of the resultant action).' (*Ibid*.) Because of this, O'Connor leaves an explanatory gap with regards to why the intention was formed. We cannot explain that an agent, say, intended to kick a football *because she wanted to score a goal*, for that would be to imply that her desire to score a goal played

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[130] Emphasis added.

a causal role in her forming the intention. Without the ability to make this appeal, O'Connor's model cannot offer any story about how to account for the rationality of action. As Rice puts the objection: 'It appears that O'Connor's suggestion is that there is simply no story to tell.' (*Ibid.*) O'Connor's account, then cannot for the rationality of divine (or non-divine) action any better than Reid's.

(iii) Clarke

A third kind of account to consider is the 'integrated view' of Randolph Clarke (1993, 2003). The account is an integrated view because, Clarke maintains, actions are performed when they are caused *both* by the agent (*qua* substance cause) *and* the event comprised of the agent's coming to acquire reasons for action. On Clarke's view, an action is a free one if the reasons the agent has for acting are *nondeterministic*. Suppose, for example, Diana makes decision *D1*, and is motivated by her having reason *R1*, then, in Clarke's words:

> An integrated agent-causal account provides for an agent's exercising, when she acts with direct freedom … active control plus a further power to causally influence which of the open alternatives will be made actual. In exercising this further power, the agent is literally an originator of her action, and neither the action nor her initiating the action is causally determined by events.
>
> … [*D1*] is caused by Diana, by *R1*-her having certain reasons favoring the action decided on-and by her having a present-directed intention to make up her mind. The causation of the action by Diana does not consist in the causation of the action by these events; it is causation by a substance, something not itself caused. *And the causation by these events is nondeterministic*; given the laws and the occurrence of these events … it remains open until she makes her decision that Diana not make decision *D1*. Further, given that Diana possesses an agent-causal power, as a matter of natural law, she makes decision *D1* only if she causes that decision. The causation by Diana is thus not redundant, and it is not irrelevant to the question of what really brings it about that she makes decision *D1*. The causation by Diana is among the things that constitute her exercising direct active control in making decision *D1*. (1993: 151-2)[131]

In other words, an action is determined by the agent and her reasons for action, such that the agent is 'one determinant among many'. (*Ibid*) Clarke's model of action therefore purports to avoid the problem of accounting for the rationality of action which Reid and O'Connor's view encounters. But, the fact that the agent's mental events play a causal role does not impede the agent's freedom, nor does it exclude the role of the agent herself, since she is responsible for agent-causing her action, one motivated by these reasons.

There are two main reasons for thinking that the theist should not adopt this kind of hybrid view. First, since the account invokes mental events in this way, it would, just like event-

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[131] Emphasis added.

causalism, be at odds with divine atemporality. Second, since the account requires that the causation by these mental events be *non*deterministic, it will inherit the aforementioned problems concerning divine rationality and control which were presented against event-causalism in §2.3.[132]

4.3 Rice's Dilemma

In contending that no agent-causal theory can account for God's acting for a reason, Rice presents the theist with the following argument: It's not the case that God is an agent cause and acts for a reason, so either God's actions are not brought about by God, or God does not act for a reason. However, if God does not act for a reason, then God's actions are capricious. Rice's conclusion, therefore, is that either God's actions are not brought about by God, or they are capricious. Rice presents this dilemma more formally as follows (*A* denotes 'God is an agent-cause', and R denotes 'God acts for reasons.'):

1. $\sim(A \,\&\, R)$
2. So, $(\sim A \vee \sim R)$
3. If $\sim A$, then God's actions are not brought about by God, but (perhaps) by states/events "within"/of God
4. If ~R, then God's actions are capricious
5. So, either God's actions are not brought about by God or they are capricious (2016: 4)

Premise 1 is supported by the reasoning outlined above – i.e. the argument that none of the extant agent-causal models can properly account for the rationality of action.[133] Given that agent-causal accounts have at their heart the claim that there is an irreducible causal relation between an agent and the events they cause, as we have seen, this apparently leaves no room for any causal role played by reasons. Premise 2 simply follows from 1, and an application of De Morgan's law. Premise 3 is simply an iteration of the thought that, if agent-causalism is not true, then some form of event-causalism must be. Premise 4 is the plausible assumption that if it isn't the case that God acts for a reason, then divine action must be without motive.

Rice's preferred response it is to simply reject the agent-causal theory of action, since, she states that '[t]his is only a problem for theism if there does not exist a satisfying alternative

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[132] See Rice for a further argument against the integrated view, which claims that the account has the 'explanatory arrow pointed in the wrong direction'.

[133] Rice does not herself consider Reid's account, but I assume she would agree that it suffers similar problems to those I've presented.

to agent-causation for conceiving of divine action.' (*Ibid*: 22) and to adopt the following causal theory of divine action (CTA(divine)):

> CTA(divine):   For every event *e* in the life of God, *e* is an action of God's iff *e* is caused by the appropriate (rationalizing) mental items. (*Ibid.*)

In the case of God, then, CTA(divine) posits that psychological states or events in God bring about the events which count as his actions. And in doing so, these mental states or events provide a rationalizing explanation of God's actions.

However, given the arguments I presented in §2.3, I think that any view of this event-causal variety will be unacceptable from a theistic perspective. Therefore, the dilemma needs to be responded to in a different way – one or more of the premises needs to be rejected. In §5 I will outline the position taken by Helen Steward (2012) before going on to argue that by adopting this account, the theist can avoid the problems facing agent-causalism and thereby provide a coherent account of divine action.

5. Divine Agency & Steward's Agency Incompatibilism

In the previous sections, I have outlined the two main kinds of approaches which are taken with regards to the metaphysics of action, and I have presented a number of problems which would face both of these views, were they to be extended to explain the actions of an atemporal divine agent. The main problems with event-causalism were that it fails to provide an ontology suitable for divine atemporality, that it fails to account for the agent's (i.e. *God's*) role in action, and that its appeals to indeterminacy undermine divine rationality and control. The main problems for agent-causalism were that it isn't clear that any of the existing models can easily accommodate a divine agent, and that it faces a problem of accounting for divine rationality. Given this, I think the sensible approach at this juncture is to accept that the theist ought to endorse a picture of agent causation which accepts an ontology that includes mental states *and* agents as causes involved in actions.

5.1 Steward's Account

Fortunately, Helen Steward (2012) has advanced such an account. Steward's account accepts the agent-causationist's claim that we should 'find a proper place in our metaphysics for the causation of certain phenomena by agents, and not merely by events occurring within them, states of them, facts about them, etc.' (*Ibid*: 197) In Steward's view, it is the event-causalist's

commitment to a *purely* event-based ontology of action which creates problems for accounting for agential freedom (*Ibid*). Further, Steward argues, we should not seek to reduce agent-causation to event-causation, or vice-versa. Rather, we ought to construe causation as a *category* – i.e. not a relation – which admits of 'ontologically various relations and relationships, unified only by their connections to our interest in the explanation, prediction, and control of phenomena.' (*Ibid*: 210) Steward's contention is that we go wrong in our thinking that causation *has* an ontology – given that our language allows for true sentences which feature substances, agents, events, facts, and properties as causes, then 'might not the simple truth be that we need a plurality of irreducibly distinct ontological categories to do justice to the totality of causal phenomena?' (*Ibid*) Steward thinks we do. Her view is, then, that it makes little sense to ask what the relata of the causal relation are, since there is no one single relation which is *the* causal relation (*Ibid*).

Steward's positive proposal is that we adopt a causal ontology which includes three basic kinds, namely, *movers*, *matterers*, and *makers happen*. Each kind of entity has a different causal role to play; different kinds are causally efficacious in different ways. *Movers* are typically things, i.e. substances such as animals, persons, rocks, and molecules. They are those things which are the possessors of causal powers, and hence movers are those things that do causal work (*Ibid*: 212). However, most entities require some kind of trigger in order to initiate a causal process which occurs within the object, or which removes some barrier in order to allow the object to exercise a causal power. These triggers are events – they are the *makers-happen*. Steward explains that:

> [s]ince they are triggers, they must be *happenings*. Strikings of matches, for example, are makers-happen, although the fact that a match was struck is not. It is perhaps necessary to caution that of course my terminology here is technical: not everything of which we might say in everyday life that it made something happen counts as a maker-happen, in my sense. We might, for instance, say that a stone (which, in my terminology, is a mover) made the breaking of the window happen or that the fact that the match was dry (which in my terminology is a matterer) made it light. But these things are not makers-happen in my technical sense. *A maker-happen, in my technical sense, can only be a particular event.*[134] (*Ibid*.)

However, in admitting triggers, we do not thereby deny that it is substances which are causes – rather, substances are the movers, and events are the makers-happen. Further, since there are other things, namely, *facts*, which are causally relevant to the production of effects of certain sorts, we can admit that these facts are also types of causes – these are what Steward

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[134] Emphasis added.

calls *matterers*. Examples of these are factors such as the dampness of a match which might be expressed by a statement such as 'the match didn't light because it was damp'. (*Ibid*: 213) Again, admittance of matterers does not negate the causal role played by objects, or events, in bringing about events – it merely indicates a different type of cause in addition to these.

A further, crucial element to Steward's view is the contention that agents do not cause their actions. Rather, agents bring about changes and bodily movements – it is their doing so which is their action. The motivation for this is the need to prevent a problematic regress, as Steward explains:

> [The agent-causalist should] *identify* actions with instances of event causation. Actions should not be regarded by the agent causationist as things caused by exercises of agent causation; that just raises the issue of what on earth exercises of agent causation are supposed to be (if they are not themselves actions). The question needs to be blocked before it can arise with the recognition that actions are themselves exercises of agent-causal power. Agent causation is needed not to characterise the role played by the agent in causing her actions (for agents do not cause their actions); it is needed to characterize the role played by the agent in acting; that is to say, in bringing about the movements and changes in their own bodies, movements and changes by means of bringing about which agents are able to bring about all kinds of other movements and changes in the world at large. (Ibid: 199-200)

According to Steward, the question of what the causes of actions are, and whether these causes are themselves actions, makes no sense. An agent's action simply is their causing something. On Steward's account, then, we have the following model:

Action {(Mover, matterer, maker-happen) —» event}

In other words, an action is not what is caused by the agent, but the agent's causing itself (i.e. the causal nexus included in the curly brackets). To better illustrate how the model works, let's take again the example case of action, *my kicking a football*. On Steward's view, actions are settlings by agents, they are causings of bodily movements and changes by agents. The event of the football's being kicked is the event I cause, and *my kicking of the ball* is not something I cause, because my kicking (moving my leg) *is* my action. The relevant matterers here will be the situation I find myself in when I kick the ball, what my mental states are like, and so on. The trigger of my action may be my acquiring the desire to score a goal and the belief that my so kicking the football will achieve this desire. Suppose one asks, in this case, whether the cause here is an event or an agent. In that case, Steward's response would be as follows: 'the answer to this question depends what *kind* of question you're asking. If you're asking which is *the*

cause, your question is misguided, because there is no such thing as *the* causal relation. If you're asking what it is that *triggered* the event, then the answer will be: *an event*. If you're asking what it is that does the *causal work*, what it is that possesses causal powers etc. then the answer will be: *a substance*. If you're asking why something *happened as it did* then the answer will refer to *facts* (matterers).

5.2 Responding to Rice's Dilemma

In my view, the theist would do best to adopt this model, since doing so will allow them to avoid the problems associated with both event-causalism, and the agent-causal theories of those such as Reid, O'Connor, and Clarke. The adoption of Steward's account will also allow theists to deal with Rice's dilemma, and to do so in such a way which rejects the move made by Rice in response to it. First, actions themselves are not caused – they are agents' causings. Second, we can dismiss [P1], and *ipso facto*, [P2] – God's being an agent cause does not preclude his acting for reasons, because his reasons are matterers. Divine mental states (beliefs, desires, and so on) make a causal difference to his actions because they do explanatory work with regards to why God acted as he did, and why the effects of his actions are as they are. I therefore agree with Rice that God's states do not *cause him* to do anything, but I disagree with her as to the reason why this is so. For Rice, the reason is that the relevant ontology for action is *events*: mental events are the causes of actions, which are themselves events. Given this, the question of an event's causally affecting an agent, *qua* substance, does not arise. I have argued, however, that this kind of event ontology is not acceptable for traditional theism, and I therefore reject Rice's response for this reason. What the theist should say instead, then, is that God's states do not cause him to do anything, because God's states are *matterers*. Divine mental states do not cause God to act, and nor do they compete with God for a place on the left hand position of the causal relation. Nonetheless, they do make a difference to *the way in which* God causes, and to *what* he causes. It is in virtue of making a difference to the effects of divine action that God's reasons play a causal role in divine action.

There is a residual worry here, though. For, on Steward's account, there are *three* ontological categories. We can straightforwardly account for two of these: the mover with respect to divine actions is *God*, and the matterers with respect to divine action are *God's mental states* (including his beliefs and desires). What should the theist say, though, about the *makers happen* (triggers) of divine actions? We cannot straightforwardly accommodate the triggers of actions as Steward conceives them, because according to Steward, what triggers an action is an *event*, and as we have seen, events cannot be said to play a causal role in divine action. In the

non-divine case, what triggers an agent into action is a particular mental event, a volition or willing, let's say. But God cannot, of course, have a volition if a volition is (or must always be) conceived of as an *event*, because God is timelessly eternal. In this case, what I think the theist ought to say here is that there are triggers of divine actions, and that these are volitions, but that in the divine case these volitions are states, and not events. If volitions can at least sometimes be rightly conceived of as *states*, then God could instead be said to have a volition which is stative, such that God simply *eternally wills what he wills*.

A further issue arises here, however. If a divine volition is a state, then it is of the same ontological type as the *matterers*. In this case, how can it properly be said to be a trigger? It doesn't appear to be in the right ontological category for a maker happen. My response to this is that there is something in the very content of the volition that accounts for its counting as a trigger, and this is simply whatever it is that accounts for our thinking that there must be a distinction between willings and mere reasons in the first place. Beliefs and desires themselves do not seem to have the right kind of content to initiate action. This is because they are mental entities which can be held for periods of time, but not acted on. Even event-causalists, who consider beliefs and desires to be the causes of actions do not take the beliefs and desires themselves to be causes; rather, it is the events involving them (e.g. the coming to acquire beliefs and desires) that initiates action, on this view. Volitions, however, are different, since it is willings themselves that initiate action. Perhaps the theist could say, then, is that divine willings are, to borrow Reid's terminology, *exertions of active power*. The theist may then contend that while divine volitions are states, they are importantly different to other divine mental states in terms of their *content*. In this case, we may say that divine volitions *eternally* trigger divine action.

5.3 Buckareff's Objections to Divine Atemporal Agency

Having outlined Steward's view, and having shown how this can avoid the problems which face the standard views, I turn now to consider two arguments against the coherence of divine atemporal agency, which have been put forward by Andrei Buckareff. Once I have outlined these arguments, I will argue that Steward's model has the added advantage of providing the theist with a response to them.

Buckareff has two arguments to the effect that if God is an agent who performs discrete intentional actions, then God must be spatiotemporally located. The first of these runs as follows:

[P1'] Any spatiotemporally located state of affairs is caused by something that is spatiotemporally located. (Assumption)

[P2'] The causal consequences of God's actions in the universe are spatiotemporally located states of affairs. (Assumption)

[C1'] So God's actions are spatiotemporally located. (from (P1) and (P2))

[P3'] If God's actions are spatiotemporally located, then God is spatiotemporally located.

[C2'] So God is spatiotemporally located. (from [C1'] and [P3'])[135] (2016: 218)

The first argument is, then, that if God is an agent whose actions has effects that are spatiotemporally located, then God's *actions* themselves must be spatiotemporally located. His conclusion is, therefore, that since God is an agent, and the effects of God's actions are indeed spatiotemporally located, then God's actions must indeed by spatiotemporally located. He claims that because of this, 'traditional theism does not have the metaphysical resources necessary for us to be theological realists about divine agency.' (2016: 214) Given that we do want to be realists about divine agency, then, we must reject the conception of God as atemporal.

Buckareff's second argument runs as follows:

[P1''] Necessarily, for any *A* such that *A* is an intentional action, there is some event, *E*, such that *A* is identical to *E*. (Assumption)

[P2''] Necessarily, for any *E* such that *E* is an event, there is some time *t* such that *E* can be indexed to *t*. (Assumption)

[C1''] So, necessarily, for any *A* such that *A* is an action, there is some time *t* such that *A* can be indexed to *t*. (from [P1''] and [P2''])

[P3''] God exists outside of time. (Assumption for reductio)

[P4''] If [P3''], then for any *DA* such that *DA* is a divine action, there is no time *t* such that *DA* can be indexed to *t*.

[P5''] If for any *DA* there is no time *t* such that *DA* can be indexed to *t*, then divine actions are not events.

[P6''] If *DA*s are not events, then not all actions are events and so not all actions can be indexed to a time.

[P7''] But, necessarily, all actions are events that can be indexed to a time. (from [C1''])

[C2''] So it is not the case that God exists outside of time. (from [P3'']-[P7''])

[C3''] So God is a temporal agent. (from [P3''] and [C2'']) (*MS*: 2-3)[136]

Buckareff's reasoning here seems to be echoed by Sutherland, who states that 'if an event is part of the time-series to which we belong … then if that event is to be explained as an *act*,

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[135] I have altered the presentation of the argument slightly by adding the prime symbol to each premise in order to avoid any confusion with Rice's argument.

[136] As with the first argument, I have altered the presentation of this argument slightly by adding two primes to each premise in order to avoid any confusion.

then whether the agent be Endersby the post-office clerk, or God, prima facie *that agent must be locatable within that time series.*'[137] (1979: 105)

      Buckareff recognises that the most contentious of these premises are [P1″] and [P2″]. Assuming that [P2″] recognises that some events might take place over an extended period of time, then given what I have said in the previous sections of this chapter, I am willing to grant Buckareff the claim that all events can be temporally indexed. The more controversial of the two is [P1″]. Buckareff's justification for it comes from reflecting of the following example case:

> Consider the following example of a bodily action: Suguro's kicking of a ball at 12:30p.m. The relevant action-type that is exemplified when Suguro acts is 'kicking'. It should be fairly uncontroversial that Suguro's kicking is temporally located since he did it at 12.30. But this does not guarantee that it is an event. After all, objects and other entities have temporal locations. But Suguro's kicking is an event. Suguro *qua* subject of the action undergoes some change by exemplifying kicking. For example, he goes from exemplifying one property (e.g. running) to exemplifying another property (viz. kicking). Suguro's kicking is done intentionally and is under his control in the way appropriate for action… So, assuming that [events are exemplifications of properties at times], Suguro's action of kicking a ball is an event. It certainly fits the description of an event. (*MS*: 11)

Buckareff then claims that we can generalise this kind of result to divine actions. Taking the example of God's freeing the Hebrews from slavery Egypt, Buckareff claims that since there is a past time at which the Hebrews were freed, then the action of freeing them occurred in the past. This is because, if there is some time at which the Hebrews were enslaved, and some time at which they were freed, then 'God undergoes some change by exemplifying an action type, viz. 'freeing' or 'liberating'.' (*Ibid*) Given that this action involves God's undergoing some change, Buckareff claims, God's action must be a temporally located event, and therefore God is a temporal agent who '… is no less temporal than Suguro.' (*Ibid.*) He concludes, therefore, that 'the concept of God as an atemporal agent who performs intentional actions is untenable.' (*Ibid*: 12)

5.4 Responding to Buckareff's Arguments

The first of Buckareff's arguments can be dealt with reasonably swiftly. Given the arguments I presented in Chapter III, I think the theist is justified in denying [P1′], the premise that any spatiotemporally located state of affairs is caused by something that is itself spatiotemporally located.

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[137] Emphasis added.

The second of Buckareff's arguments is also unsound, since the reasoning just given in support of [P1″], the assumption that it is necessarily the case that for any A such that A is an intentional action, there is some event, E, such that A is identical to E, is fallacious. The justification given for this was that actions necessarily involve changes. Since there is a past time at which the Hebrews were freed, then God's action of freeing them occurred in the past. This is because, if there is some time at which the Hebrews were enslaved, and some time at which they were freed, then God must undergo some change by exemplifying an action type 'freeing' at this past time. What the theist should make clear here is that there is a distinction to be drawn between the effects of God's actions, and God's actions themselves. Now, it unquestionably is the case that the effects of God's freeing action occur at the past time at which the Hebrews were freed. However, it does not follow that God's action itself is located at this time. We can strengthen this point by recalling what Steward says about the nature of action. As I explained in §5.1, on Steward's version of agent-causalism, actions are not things which are caused – rather, they are the agent's *causings*. E.J. Lowe appears to echo Steward's sentiment here when he states:

> Take [an] example, which does not involve agents, but simply the causing of one event by another: the case of an explosion causing the collapse of a bridge. The explosion has a time of occurrence, as does the collapse of the bridge (even if these events are, each of them, spread out over a period of time, rather than being momentary). But does the explosion's causing the collapse have a time of occurrence? Indeed, is it an event, in addition to the explosion and the collapse themselves? It is not so clear, I suggest, that the correct answer to either of these questions is 'Yes.' If causings, quite generally, are not events and at least some actions are causings, then not all actions are events, even if some are. We might have to conclude, on this basis, that actions don't constitute a unified category of entities at all – not even a sub-category of some other category. (2010: 5)

Buckareff's argument, then appears to identify God's actions with the effects of his action, i.e. to identify God's actions with what he causes, rather than the causings themselves.

It will not do to respond to this objection with the claim that God must be temporal because he undergoes some change in virtue of having not freed at some time, t_1, and having done so at some later time, t_2. This would be, in effect, to maintain that God's action spans t_1 and t_2. While it is true that, at t_1 the Hebrews are not freed, and at t_2, they are, it does not follow that God's action *spans* $t_1 - t_2$. Again, this would be to make the mistake of identifying the effects of God's action with his action itself. On the view being defended here, God is timelessly eternal, and whilst the effects of his actions are changes, events, spatiotemporally located particulars and so on, his actions are *timelessly eternal*. Contrast the following:

(i)   At t_2 God causes it to be the case that [the Hebrews are freed].

(ii)   God causes it to be the case that [the Hebrews are freed at t_2].

On this view, (i) is false, but (ii) is true. It is eternally the case that God frees the Hebrews at t_2 — the Hebrews are freed at t_2, but God does not free them *at* t_2.

6. Conclusion

I have argued that there are a number of problems confronting a traditional theistic conception of divine agency. The standard event-causal model of agency cannot be extended to an account of divine action because it lacks a suitable ontology, and it undermines divine ultimacy, freedom, and control. Agent-causalism, I have argued, is a more promising account from a theistic perspective. However, in order to respect divine rationality and atemporality, the theist ought to adopt Steward's version of agent-causalism in particular.

VI. Divine Causation & Counterfactuals

1. Introduction

Traditional theism has a number of commitments regarding God's relation to creation, two of the most important of which are the following: (i) that God is the creator of the universe, and (ii) that much of what exists depends for its continued existence on God's creative and sustaining activity. These claims look distinctly causal. The first is perhaps most naturally understood as the claim that God *caused* the universe to exist; the second is likewise often interpreted as meaning that God *causes* the universe (and all of its contents) to remain in existence. One commonly held thesis regarding causation is that it entails counterfactual dependence. To say that one thing, E, counterfactually depends on another, C is to say that had C not been the case, E would not have been the case either. Consider, by way of illustration, the following statements:

(a)   The sounding of the alarm caused the crowd to panic.

(b)   The pulling of the trigger caused the gun to fire.

(c)   The car crash caused his injury.

If (a)-(c) are true, then it seems that (a*)-(c*) must also be true:

(a*)   If the alarm hadn't sounded, the crowd wouldn't have panicked.

(b*)   If the trigger hadn't been pulled, the gun wouldn't have fired.

(c*)   If the car hadn't crashed, he wouldn't have been injured.

More generally, then, the thought is that *every* causal statement is closely linked with a corresponding counterfactual dependence claim, meaning that it is true that causation entails counterfactual dependence. We may present this thesis more formally, as follows:

CECD: $C \Rightarrow E \models C \,\square\!\!\rightarrow E$

where *C* and *E* refer to whatever one takes causal relata to be (events, facts, etc.) '$\Rightarrow$' denotes the causal relation (such that *C* causes *E*), and '$\square\!\!\rightarrow$' denotes the counterfactual dependence relation (such that '*E* counterfactually depends on *C*', and so read as 'if it weren't the case that C, then it wouldn't be the case that E').

What does it mean, though, to say that *E* counterfactually depends on *C* – what are the assertability conditions for the claim that 'if *C* hadn't occurred, *E* wouldn't have occurred either'?[138] The most popular semantics for counterfactuals is the one proposed by David Lewis (1973). This approach invokes possible worlds in order to assess the truth values of counterfactual statements. According to Lewis:

$\varphi \,\square\!\!\rightarrow \psi$ is true at a world *i* (according to a system of spheres \$) if and only if either
(1)   no φ-world belongs to any sphere *S* in \$$_i$, or
(2)   some sphere *S* in *S*$_i$ does contain at least one φ-world, and $\varphi \rightarrow \psi$ holds at every world in *S*
(1973a: 16)

Or in other words, $\varphi \,\square\!\!\rightarrow \psi$ is true at @ iff either there are no φ-worlds, or if all of the φ-worlds most similar to @ are ψ-worlds. If we are to presume CECD, then given that the Lewisian semantics for counterfactuals is the most widely used, it would be useful if the theist were able to extend this theory to statements expressing divine causal activity as well. (A counterfactual semantics for divine causation would also be useful for those theists who wish to make sense of divine deliberation, and those who seek to express Molinist claims about divine knowledge.[139])

1.1   Theistic Counterfactuals

The theist maintains, amongst other things, the following claims:

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[138] I speak here of assertability conditions. This is to allow for those who don't believe that counterfactuals have truth conditions. I will stay silent on the metaphysical issues surrounding truth makers etc. However, for sake of ease, I will speak in terms of the truth and falsity of various counterfactuals.

[139] Molinism is a thesis concerning divine foreknowledge which purports to explain how God can have knowledge of contingent future truths without impugning creaturely freedom. The thesis asserts that God's knowledge of future creaturely actions is mediated by counterfactuals of freedom: *If person P were in circumstances C, P would freely do action A.* Molinism requires there to be counterfactuals of this form corresponding to every possible free creaturely action. These propositions are intended to be contingent but they are prior to God's creative will. God uses them in deciding what to create.

(GC)   God *created* the universe.

(GS)   God *sustains* the universe.

Very plausibly, (GC) and (GS) are *causal* claims. Unpacking these statements in the following way will make the relevant causal relations explicit:

(GC')   God causes the universe to exist.

(GS')   God causes the universe to persist.

Assuming, for the sake of argument, that causation does entail counterfactual dependence, then since we appear to have a causal relation here between creator and created (GC') and (GS') will entail:

(GC*) If God had not existed, the universe wouldn't have existed.

(GS*) If God had not existed, the universe wouldn't have been sustained.

Now (GC*) and (GS*) have what according to the theist are impossible antecedents; given that theists think God is a necessary being, then *God's non-existence* is an impossible state of affairs.

Counterfactuals with impossible antecedents (*counterpossibles*), however, are problematic. It is clear how we can reason with standard counterfactuals – we consider the possible state of affairs in which their antecedents hold and check to see whether the consequent holds also. However, with counterpossibles, it isn't so obvious what to do – how are we supposed to entertain their antecedents if they're not even possible? And how, moreover, are we supposed to consider what follows from an impossible state of affairs? Given this, it simply isn't clear how one could evaluate the truth of counterpossibles. It is worth noting that the problem of counterpossibles is particularly pressing for the theist, since much theistic discussion is engaged in counterpossible reasoning. Consider, for example, debates between the theist and atheist – *if God weren't benevolent, the world would contain more evil*, *if God didn't exist, there'd be no moral facts*, *if God didn't exist, the chance that the universe would have been life-sustaining would have been extremely unlikely*; and so on. The fact that it isn't obvious how to assess counterpossibles, then, is problematic, and is particularly so for theists.

1.2   Counterpossibles & the Standard Semantics

Aside from the fact that it is unclear as to how we are to properly reason with counterpossibles, there is a further problem posed by the standard semantics. If we consider again the first of Lewis' truth conditions for counterfactuals: '$\varphi \,\square\!\!\rightarrow\, \psi$ is true if there are no φ-worlds' we can see that on Lewis' view, counterpossibles are evaluated as *true*. For, if we are considering a counterfactual with an impossible antecedent, then φ will represent an impossibility, and so there *will be no* φ-worlds, and so counterpossibles will be *trivially* true. Call this the triviality thesis (TT). Since (GC*) has an impossible antecedent, then following TT, (GC*) will be trivially true. This is problematic, not because (GC*) is true, because it *is* true for the theist – but because it is merely *trivially so.* To see why, consider the fact that any other counterpossible which takes the universe's non-existence as its consequent will also be trivially true: *if 8 hadn't been a prime number, the universe wouldn't have existed; if the circle had been squared, the universe wouldn't have existed; if things were green and yellow all over, the universe wouldn't have existed*; and so on. TT delivers the result that all such statements are (trivially) true. However, the theist takes God to be the *only* possible cause of the universe; God uniquely grounds the world's existence. However, since the above non-theistic counterpossibles are trivially true, the theist cannot accurately capture the uniqueness of (GC*). In taking God to be a necessary, benevolent, unique creator, the theist *should* want (GC*) to be *substantively* true, but according to TT, it isn't.

There is a further issue, moreover. For, consider the alternative counterfactual to (GC*):

(GU*) If it were the case that God didn't exist, the universe would still exist.

Since this is also a counterpossible, it too will be assessed as (trivially) true. This, of course, gives the problematic result that:

(GC*) God doesn't exist $\square\!\!\rightarrow$ the universe doesn't exist

and

(GU*) God doesn't exist $\square\!\!\rightarrow$ the universe exists

receive the same truth value. Moreover, (GU*) receives the wrong truth value entirely – it is, according to the theist, *false.* And not just trivially false – for the same reasons given (*mutatis mutandis*) for thinking that (GC*) does not have *mere* trivial truth.

[136]

This discussion shows, therefore, that TT is not a principle which can reasonably be maintained by theists who wish to give a semantics for divine counterfactuals; something noted by William Lane Craig (1991: 494): 'some other analysis of the truth conditions of counterfactual conditionals needs …to be developed in order to handle what are here [i.e. (GC*) and (GU*)] evidently mutually exclusive and significant claims.'

1.3 Non-Theistic Counterpossibles

It is also worth pointing out, however, that TT does not just present problems for theists. There are many non-theistic counterpossibles which, intuitively, ought not to be assessed as either trivially true or false. Indeed, a number of contemporary philosophers (e.g. Berit Brogaard and Josef Salerno (2007, 2013), and Daniel Nolan (1997)) have explicitly argued against TT because of its counterintuitive consequences. Consider the two following examples:[140]

(H1)   If Hobbes had squared the circle, people would have been surprised

(H2)   If Hobbes had squared the circle, I would have been Prime Minister

which, again, will be assessed as trivially true under the Lewisian semantics. However, no doubt many would agree that (H1) is *non-trivially* true, because squaring the circle would have been an extraordinary feat; and that (H2) is *non-trivially* false, since whether or not the Hobbes had squared the circle seems to have no bearing whatsoever on whether I am Prime Minister. Examples such as (H1) and (H2) illustrate that there are also *non*-theistic counterpossibles which are assigned the wrong kind of truth-value according to TT.

TT is also problematic in the sense that it seems to leave no space to make sense of certain metaphysical disputes, since, as Nolan explains, it seems that these debates involve counterpossible reasoning:

> Many metaphysical views seem to be such that if they are true at all, they are necessarily true, and if false, necessarily so: yet, rivals understand each other, and we metaphysicians flatter ourselves that we are engaging in real debates, where argument and invocation of considerations are important: we are not babbling mere nonsense, even when some of our number (or many of our number) fall into necessary falsehood. (*Ibid*: 539)

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[140] I have adapted these from Nolan (1997: 544).

We also often encounter debates over which logic is correct, and which mathematical system is correct. Such debates are taken to be substantive and informative. However, if some of the theories and theses which form the subject-matter of these debates are true, there is good reason for thinking that they are *necessarily* so. However, this means that one or more of the opponents who engage in such debates are reasoning with counterpossibles. If this is the case, then it is hard to see how such debates could be taken to be substantive or informative – that is, if TT is true.

Brogaard and Salerno (2013) are in agreement with Nolan on the point that TT fails to explain the informativeness of counterpossible reasoning in philosophy, mathematics and logic. However, they find further reason to reject the thesis, since, they claim, the denial of TT facilitates a modal analysis of essence. They argue that a modal analysis of essence – one which explains an individual's possession of its essential properties by reference to modal concepts – cannot simply identify an individual's essential properties with *de re* necessities, i.e. with those properties the object has necessarily. This is because of the following kinds of consideration: Frank Black is necessarily a human and necessarily such that natural numbers exist. However, whilst it is part of Frank's essence that he is human, he is not essentially such that natural numbers exist; it's not part of Frank's nature that numbers exist. In order to explain why, one would need to be able to assert something like the following: (a) if there hadn't been any natural numbers then Frank might still have existed, and (b) if there hadn't been any humans then Frank would not have existed. Now, unless TT is denied, (a) and (b) will each be trivially true. Yet, '[t]his sort of explanation requires, for its non-triviality and informativeness, that some counterpossibles be non-trivial and informative, or more specifically, that their truth-values be affected by the truth-values of their consequents.' (2013: 646) Therefore, any proponent of a modal analysis of essence should want to reject TT. Obviously, this argument has somewhat limited appeal since alternative analyses of essence are available. Nonetheless, it adds cumulative support for the denial of TT.

To sum up: I have argued that any theist wanting to provide a semantics for divine counterfactuals ought to reject TT. So, it would be a good idea to see whether there was some way of extending the Lewisian semantics to divine counterfactuals which does not employ TT. However, since I have also presented some independent reasons for doubting the truth of the TT, it is not simply the case that the theist would be making an *ad hoc* move to develop a counterfactual semantics which abandons TT.

[138]

2. The Triviality Thesis (TT)

Given that TT is problematic in a number of respects, it is worth considering why one would accept it in the first place. Lewis' motivation likely comes from the principle, *ex falso quodlibet*: from a contradiction, anything follows. If contradictions entail anything whatsoever, then, if a conditional has an impossible antecedent, we know the consequent must follow, since we may derive anything we like. Hence, Lewis states:

> Confronted by an antecedent that is not really an entertainable supposition, one may react by saying, with a shrug: If that were so, anything you like would be true! Further, it seems that a counterfactual in which the antecedent logically implies the consequent ought always to be true; and one sort of impossible antecedent, a self-contradictory one, logically implies any consequent. (1973a: 24)

In an attempt to make this kind of reasoning more explicit, Linda Zagzebski (1990: 167)[141] cites the following argument for TT:

(i)   Every impossible proposition pi entails any proposition q.

(ii)   If a proposition p entails some proposition q, then $p \,\square\!\!\rightarrow q$.

(iii)   Every impossible proposition pi is such that $pi \,\square\!\!\rightarrow q$.

So, as long as premises (i) and (ii) are plausible, the argument is a good one. Zagzebski notes that (i) will be true if entailment is strict implication:

> In the standard modal systems to say p strictly implies q is to say that it is impossible for p to be true and q false. But of course, if it is impossible for p to be true, it is impossible for p to be true and q false, no matter what q is.' (*Ibid.*)

Zagzebski points out, however, that one might not take entailment to be strict implication. Nonetheless, even if entailment is not strict implication, one could still justify (i) if q can be derived from p by 'impeccable principles of deductive inference.' (*Ibid.*) Zagzebski suggests the following such principles:

A)   A conjunction entails each of its conjuncts.

B)   Any proposition p entails p v q, no matter what q is.

C)   The propositions p v q and $\neg p$ entail q.

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[141] As I will explain further on, Zagzebski does not actually endorse this argument.

D)   If *p* entails *q* and *q* entails *r*, then *p* entails *r*. (*Ibid*: 167-168)

She goes on to state that, from these, one can reason:

1)   *p* & ¬*p*   (Assumption)

2)   *p*   (1, A)

3)   *p* v *q*   (2, B)

4)   ¬*p*   (1, A)

5)   *q*   (3, 4, C) (*Ibid.*)

And further, from D:

iv)   A contradiction *p* & ¬*p* entails any proposition *q*.

If it is assumed that

v)   Every impossible proposition *pi* entails an explicit contradiction, *p* & ¬*p*,

it follows that:

vi)   Every impossible proposition *pi* entails any proposition *q*. (*Ibid.*)

Therefore, we have at least two possible justifications for (i): it will be true if entailment is strict implication, or if every necessarily false proposition is self-contradictory and A-D are valid principles of deductive inference (*ibid*).

However, (v) is highly dubious. It certainly isn't obvious that every impossible proposition entails an explicit contradiction of the form: $\varphi \land \neg\varphi$. Take the following examples: *an object is in motion, but has no mass; 2 + 2 = 5; there is a barber who shaves all and only those who don't shave themselves.* Whilst each of these represent impossible states of affairs, it certainly isn't clear that they do so because they involve a contradiction. At the very least, some argument ought

to be given for thinking that all impossibilities do involve contradictions. However, to my knowledge, there are no such arguments.[142]

One might also bring into question, (iv), the principle of *ex falso quodlibet*. As I discuss in §4 below, not all logical systems endorse it; relevance logic explicitly denies it. Further, there are certain interpretations of negation which would suggest that from a contradiction, *nothing* follows.[143] If one took the view that negation were a kind of *cancellation*, for example, then, one might think that nothing can be derived from φ ∧ ¬φ, since an utterance of ¬φ would cancel ones utterance of φ. P. F. Strawson, for example, states: '…the intention to communicate something is frustrated by self-contradiction. Contradiction is like writing something down and erasing it, or putting a line through it. A contradiction cancels itself and *leaves nothing*.'[144] (1952: 3)

What about (ii)? As Zagzebski notes, (ii) is endorsed by Lewis when he states: 'it seems that a counterfactual in which the antecedent logically implies the consequent ought always to be true; and one sort of impossible antecedent, a self-contradictory one, logically implies any consequent.' (1973: 24). However, as she also points out, Lewis is not providing any justification for (ii) here; he is simply asserting it in support of (iii). Zagzebski claims that she knows of no extended discussion of (ii), but that if entailment here is taken to be strict implication, then examples such as (H1) and (H2)[145] show it to be false. So, unless it is settled what understanding of entailment is in use here, then the argument from (i) and (ii) to (iii) is inconclusive.

A further possible line of support for (iii), noted by Zagzebski (and Lewis), comes from our desire to reason via *reductio ad absurdum*. 'If we want to show that a certain supposition is absurd, we sometimes argue that, if it were true, then something ridiculous would follow. If *p* were true, *q* would be true; *q* is impossible; hence, *p* is impossible as well.' (Zagzebski, *ibid.*) Such reasoning employs counterpossibles. However, as Zagzebski rightly points out, the reductio of a proposition does not require that for every proposition, *q*, if *p* is impossible, *p* □→ (*q* & ¬*q*), rather, merely that only *some* impossibility would follow, were *p* true. So, reductios do not require that *every* counterpossible be true.

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[142] In fact, Zagzebski has an *a priori* argument that it is at least possible that there are impossible propositions from which no contradictions can be derived in an adequate formal system. See her (1990: 174-75).

[143] This point has been made by Simon Hewitt, in his talk 'Ex Falso Nihil', *Centre for Metaphysics and Mind*, University of Leeds, 09/03/16.

[144] Emphasis added.

[145] As a reminder: (H1) was that 'if Hobbes had squared the circle, people would have been surprised', and (H2) that 'if Hobbes had squared the circle, I'd have been Prime Minister'.

In sum, Zagzebski has shown that the arguments for TT are at best unsatisfactory. Further, many theists have good reason to believe there can be connections between propositions which hold regardless of whether these propositions are logical falsehoods. Further still, there are a good number of counterpossible conditionals which both theist and atheist alike would evaluate as either non-trivially true or non-trivially false. Therefore, until better arguments for TT are forthcoming, I am satisfied that the theist ought to eschew the triviality thesis and pursue a semantics for counterfactuals which includes truth conditions for counterpossibles.

The remainder of this chapter focuses on the three versions of a theistic semantics for counterpossibles already on offer in the philosophical literature – those presented by Brian Leftow (1989, 1990), Richard Davis (2006), and Linda Zagzebski (1990). The remainder of the chapter outlines each of these accounts and shows that there are problems for each of them. §5 outlines Leftow's account and argues that the problems facing it are sufficiently damaging to reject it. §6 outlines Davis' account and argues that, as it stands, it forces the theist to make an unnecessary and ad hoc metaphysical commitment. However, it shows that incorporating some suggestions due to Edwin Mares (2004) with regards to 'informational links' allows the theist to reject the ad hoc commitments of Davis' account, providing them with a plausible semantics. §7 argues that, as it stands, Zagzebski's account is not fine-grained enough to adequately assess all counterpossibles. However, it then shows that if it is combined with some suggestions made by Alastair Wilson (2016) with regards to grounding and *orders of being*, it can, in fact provide a satisfactory semantics for divine counterpossibles. The chapter concludes, then, that there are at least two ways of modelling a semantics for theistic counterpossibles.

3. Leftow

In wanting to provide the theist with the resources for understanding God's relation to both contingent and necessary beings (such as abstracta), Brian Leftow (1989, 1990) presents what he terms a 'null-world semantics' for counterpossibles which rejects TT. In this section, I outline Leftow's account and argue that it is unsuccessful.

3.1   Leftow's Semantics

Leftow's semantics evaluates counterfactuals in the following way. When evaluating a counterfactual, we look to the closest possible world – where worlds are represented by

maximal, consistent sets of propositions[146] which tell a story that would be true of the actual universe, were the relevant events to occur (1989: 148) – where the antecedent holds, and look to see whether or not the consequent holds. If it does, the counterfactual is true, if it doesn't, the counterfactual is false. This much fits with the standard semantics.

However, when it comes to evaluating counter*possibles*, the story is different, for there *are no* such possible worlds for us to consider. Therefore, Leftow invokes impossible worlds; those worlds which are represented by 'world-sized' maximal *in*consistent sets of propositions. When assessing the truth of counterpossibles, then, we look to the impossible worlds. However, given that this is a *theistic* semantics, Leftow wishes to 'distinguish semantically between counterfactuals whose impossible antecedents involve an NBC's [necessary-being-causer] not existing and counterfactuals whose impossible antecedents do not.' (*Ibid*: 149) The reason for this, he claims, any theistic semantics ought to reflect ST: everything depends for its existence on God, so if God didn't exist, then nothing would.

To reflect this distinction, Leftow stipulates that impossible worlds come in two varieties: (i) *ordinary* impossible worlds – those that represent impossibilities which nevertheless 'involve' God's existence, and (ii) *extraordinary* possible worlds – those which represent God's *non*-existence. In Leftow's view, there is in fact, there is only *one* world of type (ii) – that is, only one extraordinary impossible world: the null world, $\emptyset w$. God's non-existence is, therefore, uniquely represented by $\emptyset$w. $\emptyset$w is so called since this contains the null set of propositions. According to Leftow, $\emptyset w$ is a 'logical black hole' which sucks 'all the propositions of a world into itself.' (1989: 149) Leftow characterises his impossible worlds as follows:

> A set of propositions can be both a non-null world and inconsistent. For instance, suppose that a set of propositions is such that for every atomic proposition Φ save for P, it includes either Φ or not-Φ, but not both, and it includes P and not-P. This set satisfies my condition for worldhood. For that condition was just that for every Φ, a world includes Φ or includes not-Φ. An impossible world, then, will be either the null world or an inconsistent world-sized set of propositions. (*Ibid*)

The purpose of $\emptyset w$ is to reflect ST: if God did not exist, no state of affairs would be actual or possible. If God doesn't exist, nothing else does – including propositions. Indeed, $\emptyset w$ doesn't even contain the proposition 'nothing exists'. However, though there are no propositions *in* $\emptyset w$, there are true and false propositions *about* the null-world, i.e. propositions which are true *of* it.

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[146] i.e. a set which for every atomic proposition, φ, either includes φ or not-φ.

Relatedly, there are two types of counterpossibles: (i*) ordinary counterpossibles – the antecedents of which involve God's existence, and (ii*) extraordinary counterpossibles – antecedents of which include God's non-existence. Surprisingly, despite invoking impossible worlds of type (i), Leftow does not wish to deny TT across the board. Rather, TT is denied only for those counterpossibles of type (ii*). So, in assessing counterpossibles, we are to adopt the following rules:

(OC)   Ordinary counterpossibles are trivially true.

(EC)   Extraordinary counterpossibles may be either non-trivially true or non-trivially false.

Leftow's justification for OC is that: 'an ordinary impossibility entails everything, we usually assign trivial truth to all conditionals with impossible antecedents'. (1989: 149) Therefore, his reasoning appears to be that since TT is a *de facto* rule, we ought to accept it. The justification for EC is that since $\emptyset w$ contains no propositions, it cannot represent the existence of any entity. If follows from this that any extraordinary counterpossible which has a consequent that represents the existence of an entity will be non-trivially false. For example, consider again:

(GU*)   God doesn't exist $\Box\rightarrow$ the universe exists

Now, since (under the semantic theory outlined) there is only one world in which God does not exist, viz. $\emptyset w$, i.e. the world where nothing else exists and no propositions are true (or false), then it will follow that the universe does not exist. Hence, (GU*) is evaluated (correctly) as non-trivially false.

The null-world hypothesis may strike one as a little odd, so it is worth saying a little more about why Leftow endorses it. Whilst one may be happy to accept that in any (impossible) world in which God didn't exist, no other entity would exist, it's less clear why one should accept the stronger thesis that *no propositions whatsoever would be true in that world*. Leftow feels the need to propose the stronger of these claims in order to uphold ST. He wants to explain how we can make sense of the claim that God causes the existence of abstracta, including propositions. Now, since both God and propositions are typically taken to be necessarily existent entities, under the standard semantics for counterpossibles, the following two counterpossibles will be assessed as trivially true:

(i)   God doesn't exist □→ propositions don't exist

(ii)   Propositions don't exist □→ God doesn't exist

This is an undesirable result for the theist, since there are few who accept that God's existence is dependent on the existence of propositions. However, Leftow's null-world semantics delivers the result that that (i) is non-trivially true (from EC), and (ii) non-trivially false (from OC). So, although both of these entities are necessarily existent, there is an asymmetric dependence relation which holds between them.

3.2   Assessment

In presenting his null-world hypothesis, Leftow appears to have made an obvious error. In stipulating that (im)possible worlds are represented by sets of propositions, he has left no room for the modal facts concerning extraordinary impossibilities to be represented. Following Lewis, we can make a distinction between what is true of a world and what is true according to a world. What is true of a world is what facts are true about whichever world one happens to be talking about. What is true according to a world, however, is what is represented as true *by* that world. Now, the way that possible and impossible worlds represent modal truths, on Leftow's account, is by containing propositions which represent these truths. However, $\emptyset w$, by definition, contains no propositions, and so cannot represent the modal claim that if 'God didn't exist then nothing would exist', since there *is no* proposition to represent this. This objection has also been raised by Richard B. Davis:

> How can we properly speak…of the null world's being true and thus representing things? $\emptyset_w$ has no members! Hence it cannot possibly represent there being nothing. In order to do that, it would have to include the proposition 'Nothing exists'. But by definition, the null world is empty, so that is out of the question. (2006: 378)

Given this, one would be justified in claiming that $\emptyset w$ simply isn't a world at all. In short, Leftow's characterisation of worlds seems unable to accommodate the null-world hypothesis.

Perhaps Leftow could object to this criticism by claiming that it fails to fully acknowledge his stipulated truth conditions. He could say something like this: 'You're begging the question. I gave you a set of truth conditions for counterfactuals, and among those truth conditions were the stipulations that possible and impossible worlds are represented by either

(i) consistent or inconsistent maximal sets of propositions, *or* by (ii) $\emptyset w$, which is represented by the null-set.' In other words, he may simply argue that he has built it into his truth conditions that the $\emptyset$w represents despite it containing no propositions whatsoever.

True, he may simply write it into his truth conditions that $\emptyset w$ represents, however, the issue now is that this appears to be an *ad hoc* stipulation. Given that Leftow's entire account is built around the existence of propositions, in order that modal facts may be accounted for, we have no good reason, aside from the fact that modal facts concerning God's non-existence are unaccounted for, to think that the null-world could represent anything. So, whilst Leftow is entitled to present whatever truth-conditions he wishes, presumably, we would not want just *anything* to be stipulated as representing modal facts. Leftow has given no good non-ad hoc reason for thinking that $\emptyset w$ is capable of doing this.

A further worry is that the null-set cannot be considered a set at all. Lewis considers the null-set to be 'a little speck of sheer nothingness' (1991: 13) and claims that we need not be 'ontologically serious' about it. The null-set has no members, but if sets are constituted and identified by their members, then one could claim that we have little reason to call the null-set a set. This is an objection Davis also makes when he claims that $\emptyset w$ is a dispensable technical device: 'we can make our point just as effectively by saying that if God didn't exist, nothing would exist. There is no need to call up something as metaphysically suspect as $\emptyset w$.' (2006: 383.)

A further problem for Leftow's account is that it is ad hoc in a further sense: if we are willing to eschew TT in order to make sense of divine counterpossibles, then by parity of reasoning, oughtn't we also to do so in the case of ordinary counterpossibles? If we have good reason to doubt the truth of the thesis where God is concerned, then perhaps we also have reason to do so in the case of other impossibilities. For example, consider the following counterpossible:

(N1) 2 doesn't exist $\square \rightarrow$ 1 has an immediate successor.

Presumably whether or not the number 1 has an immediate successor depends on whether or not the number 2 exists, in which case, the above counterpossible is false. However, Leftow appears happy to accept this is trivially true. Moreover, as I've argued above, Zagzebski has shown we have little reason to adopt TT as a general rule. Further, even if one thought that TT did apply to all counterfactuals which have contradictions in their antecedents, it's not

clear why one ought to think that all impossibilities do involve explicit contradictions. For these reasons, I think theists ought to reject Leftow's semantic theory.

4. Davis

Davis also finds Leftow's theory wanting, and so provides some suggestions to pave the way for an alternative, one of which is to introduce the notion of relevant implication into our evaluation of counterfactuals. In doing so, Davis goes beyond Zagzebski's responses to the argument for TT outlined above, for, invoking relevant implication involves denying the premise that if p entails q, then $p \, \Box\!\!\rightarrow q$. In this section, I present and assess Davis' proposal.

4.1   Davis' Semantics

Davis' suggestion is that an account of counterpossibles ought to include a notion of involvement parsed in terms of relevant – i.e. *non-strict* – implication (2006: 383). Relevant implication is a logical operator invoked by relevance logics. Relevance logics are motivated precisely by the consideration that material implication, and counterfactual implication, do not in any way properly capture our ordinary language use of 'implication'. Consider, for example, the fact that any material conditional will be true merely if it has a false antecedent, and the other paradoxes of material implication. Relevance logicians diagnose these problems concerning the truth-functional interpretation of material implication as follows: some conditionals (and counterpossibles) have antecedents which are relevant to their consequents, but there are numerous examples of those which have antecedents that have nothing whatsoever to do with their consequents. Consider again:

(H2)   Hobbes squares the circle $\Box\!\!\rightarrow$ I am Prime Minister

If one is inclined to assess H2 as false, that is likely because whether or not Hobbes squares the circle has no bearing whatsoever on whether I am Prime Minister. Whereas one is most likely to evaluate:

(H1)   Hobbes squares the circle $\Box\!\!\rightarrow$ people are surprised

as non-trivially true, precisely because squaring the circle is an impossible feat, i.e. given the meaning of the antecedent, it seems one would justified in deriving the consequent, as a matter of substantive fact.

Davis' suggestion, therefore, is to make use of the implication function employed by relevance logics. How are we to make sense of relevant implication though? Davis suggests using Keith Yandell's notion of non-vacuous entailment:

> For any necessary propositions, *p* and *q*, *p* relevantly or non-vacuously implies *q* iff *q*'s truth conditions constitute all or part of *p*'s truth conditions. (1994: 213)

Davis suggests that we introduce the relation of relevant implication in order to express those counterpossibles which satisfy non-vacuous entailment. So, for example, if we let *p = 2 is the successor of 1*, and *q = 2 is larger than 1*, then we can say that *p* relevantly implies *q* since the proposition that *2 is the successor of 1* partly constitutes the truth conditions for the proposition that *2 is larger than 1*.

Davis claims that this view has the further advantage of differentiating true and false extraordinary counterpossibles (counterpossibles whose antecedents involve God's non-existence). The proposition 'God does not exist' relevantly-implies that nothing exists. However, it also 'blocks any attempt to have the consequent of an extraordinary counterpossible [relevantly]-imply the existence of anything.' (2006: 384) Hence, Davis looks to have given a plausible proposal for developing a theistic counterfactual semantics.

Davis also considers whether we can use relevant implication to resolve an issue which arises from Leftow's account:

> But what about: (3c) if p[147] were to cease existing, then God would not exist, and (4c) if p were to cease existing then God would still exist…? Leftow's theory, as we noted, assigns truth to (3c) and falsity to (4c), leaving the impression that God is dependent on p for His existence. Ideally, to put this impression to rest, it would be nice to have a principled basis for claiming precisely the reverse… (*ibid*: 384).

As I outlined in the previous section, the theist would want to maintain that there is an asymmetric dependence relation between God and propositions in order to uphold ST. However, Davis argues that Leftow's semantics creates the problematic truth value assignment 'false' for (4c) since its antecedent implicitly involves God's non-existence. This is because

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[147] 'p' denotes any proposition.

even though propositions necessarily exist, they are nonetheless necessarily dependent on God. So, if propositions fail to exist, that must be because God fails to exist. So, can relevant implication provide a way of resolving this issue? Davis thinks it not obvious that it can. 'For whether we see the antecedents of (3c) and (4c) as [relevantly]-implying their respective consequents is going to depend more on our understanding of God's relationship to propositions than on the nuts and bolts of relevant implication.' (*Ibid*: 384)

Davis suggests that the move which ought to be made here is to conceive of God's relations to propositions in a different way. Firstly, we ought to deny that God's knowledge is mediated by propositions:

> William Alston, for example, has suggested that God's knowledge of reality is simple and unmediated, and proceeds wholly without the aid of propositional beliefs, which serve to represent reality as being this or that way. I see no reason why this model couldn't be extended to non-actual, comprehensive possibilities; perhaps these are grounded in God's direct intuition of His own power to create alternate states of affairs. (*Ibid*: 385)

So, if we reject the idea that God has any epistemological need for propositions, then we no longer have any reason for taking them to be necessary abstracta. If this is the case, then, says Davis, we can maintain that propositions are contingent entities created by God. God creates propositions by thinking them, and he does so in order that finite knowers whose epistemic powers are limited to 'grasping reality in bite-sized chunks, can hold true beliefs about the world and acquire knowledge.' (*Ibid*: 385) In this case, we can evaluate (4c) as true since we no longer maintain that propositions are necessarily caused by God.

4.2   Assessment

In my view, Davis has been too quick to accept that relevant implication is not up to the full task of providing the correct truth conditions for theistic counterpossibles such as (3c) and (4c). He is too hasty in suggesting that '…the solution lies not in tightening up our analysis of relevant implication, but rather conceiving God's relation to propositions in a slightly different way.' (*Ibid*: 385) Firstly, it strikes me as methodologically misguided to decide, on the basis of semantic considerations alone, that God's relation to propositions should be reconceived. Indeed, what is Davis to say about God's relation to other abstracta – numbers, for example?

Secondly, there appear to be more detailed accounts of relevant implication available in the literature which Davis could make use of here. Edwin Mares (2004), for example, has presented an account of relevant implication which makes use of the notion of 'informational

links'. Space does not permit a full explication of his semantics, but an outline of the main theses should prove sufficient for my purposes. The first notion to introduce is that of 'situations'. Situations are to be distinguished from possible worlds. Here, Mares follows Jon Barwise and John Perry (1983) in making use of the fact that we express partial information when we communicate. When we express the nature of our surroundings to others, we do not explain what is the case at the entire world, but rather, what is going on in our personal surroundings. These surroundings are what we call situations. Mares explains that: 'situations are structures of information, rather than physical locations, and can include information from various sources.' (*Ibid*: 40) Situational semantics differs from possible worlds semantics in the important respect that according to the latter theory, every tautology is true in every possible world. Possible worlds theory also maintains that A entails C iff in every possible world in which A is true, C is true as well. This gives the result that every proposition entails every tautology. However, under situation semantics, not every tautology is true in every *situation*. Therefore, whereas possible worlds theory commits us to fallacies of relevance, situation semantics does not (Mares, *ibid*). Mares further explains that when we make an inference, we do so from a restricted perspective which relates to a situation. The truth condition for relevant implication[148] is as follows:

> $A \bullet\!\to B$ is true at s iff there is information in s such that on the hypothesis that there is some situation t in the same world as s in which A holds, we can legitimately derive that there is some situation u in the same world in which B holds. (*Ibid*)

This truth condition expresses the crux of his thesis that, when we make certain inferences, it is the information contained within whichever situation we are antecedently considering that is to be used, and which justifies us to conclude certain things about what the consequent scenario will be. The kinds of information which play this role are termed 'informational links'. Informational links are, for example, laws of nature, context, analytic rules and linguistic rules etc. So, for example, I can infer from the fact that I am sat in the library, and the fact that the library staff have put certain signs on the wall, that I should not play my music via my portable speakers. In this case, convention and context has provided the informational link in my reasoning. In short, we can say that informational links are used to licence certain inferences. With this in place, we can now consider how relevance can lend a hand in our thinking about counterfactuals too. According to Mares, our evaluation of

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[148] Where '$\bullet\!\to$' denotes the logical connective for relevant implication.

counterfactuals is not a great deal different from our evaluation of indicative conditionals. In order to assess whether or not $\varphi \;\square\!\!\rightarrow\; \psi$ is true in situation s, we consider the set of situations s' which capture the standpoint from which we want to test the relationship between φ and ψ. Mares refers to the set of situations which we choose as the set of 'base situations' (*ibid*: 145). It is the base situations which then fix the facts contained in the informational links. The base situations will be consistent with the antecedent and will allow us (or not) to infer the consequent by providing us with information given by context and laws of nature etc.

We can then extend this theory to explain how we can reason about counterpossibles in a way which avoids commitment to TT. Mares states that:

> …a motivation that I gave for relevant logic was the ability to use it (and its semantics) to develop a theory of counterpossible conditionals. Consider…the statement
>
> If Sally were to square the circle, we would be surprised.
>
> Squaring the circle (with the use of only compass and straight-edge) is impossible. Thus this is a counterpossible conditional.
> Counterpossible conditionals provide no special problem for us. In the evaluation of conditionals we have chosen base situations which do not contain any information that conflicts with the antecedent of the counterfactual. To evaluate the counterfactual above, it would seem that we should do the same. We can choose base situations which do not contain the information that it is impossible to square the circle. But we choose situations in which we think it is impossible to do this task. We then choose circumstances that are appropriately connected to our base situations and evaluate the corresponding conditional, 'If Sally does square the circle, we would be surprised'. (2006: 147)

So, counterpossible conditionals present no problem for the advocate of relevant implication. This is because when we consider that an impossibility obtains, we do not envisage an impossible world, but rather an impossible *situation*. This situation omits the fact that what is being considered is an impossibility, and only includes the facts within our 'base' set. Therefore, we can block the consequence that every contradiction follows.

I think we can use the above theory to extend and fill out the suggestion made by Davis in his discussion of relevant implication. To begin with, since we have allowed that laws of nature can provide informational links, I see no reason why we can't also include *metaphysical* laws within our base situations as well. Here, I just take metaphysical laws to be statements which express metaphysical truths such as 'nothing can be red and green all over at the same time' and 'every individual is self-identical'. I see no reason why the theist should not also take ST to be a metaphysical law as well. AT, the thesis that God does not depend on anything outside of himself for his existence, likewise seems a good candidate for a theistic metaphysical

law. If so, we can guarantee the asymmetric dependence relation between God and propositions and eschew TT whilst delivering the desired truth values for theistic counterpossibles. To see how, consider again, for example, (3c) and (4c):

       (3c)   if p were to cease existing, then God would not exist

       (4c)   if p were to cease existing then God would still exist

When evaluating (3c), we entertain the thought that a proposition ceases to exist, and therefore *drop* the supposition that propositions are necessary existents. We then hold fixed as many metaphysical laws as possible. In this case, the metaphysical laws included within our base set will be the sovereignty and aseity theses. These metaphysical laws provide the informational links required to deduce what the consequences of the antecedent would be. Now, it seems to be that the failure of a proposition to exist, in addition to ST and asymmetric dependence, tells us that the resultant scenario is one in which God does still exist. This delivers the desired result that (3c) is false and (4c) true.

5. Zagzebski

Following her discussion of the failure of the arguments for TT, Zagzebski argues that we ought not accept it across the board (i.e. for *all* counterpossibles). Her proposal is to distinguish between those counterpossibles which have explicit contradictions in their antecedents, and those which do not; this latter type, she terms 'interesting impossible propositions' (IIPs). She explains that:

> We can say coherently and truly that certain things would have been the case had some impossible state of affairs obtained and that certain other things would not have been the case. The reason, I believe, is connected with the fact that it is a mistake to think of one necessary state of affairs as the same as any other, and for the same reason it is a mistake to think of one impossible situation as the same as any other. In particular, it is reasonable to think that some necessary states of affairs can enter into relations, including causal relations, with other states of affairs. Christians, in fact, are probably committed to this view. The necessary state of affairs of God's being good is no doubt causally related to the existence of a physical universe… But it is surely not the case that the necessary state of affairs of its being the case that 2 + 2 = 4 is causally related to the existence of the universe in that way.

Zagzebski proposes two ways of extending the standard counterfactual semantics to IIPs. The first way extends Robert Stalnaker's (1968) account; the second builds on Lewis'. Stalnaker's account is similar to Lewis' (a main difference between the two being that the former is stated

in terms of sets of beliefs or propositions, and the latter in terms of worlds)[149] Since Lewis' is, to my knowledge, the more widely-discussed of the two, then for the sake of brevity, I will focus my discussion on the Lewisian approach.[150]

5.1   Extended Lewisian Semantics

Zagzebski considers Lewis' semantics to be easily extendable to deal with counterpossibles – that is, by introducing a system of impossible worlds. As she explains, for any proposition, φ, then if we posit the existence of impossible worlds (in addition to possible ones), there will always be some world in the sets of worlds surrounding w in which φ is true. Therefore, the first disjunct of Lewis' truth conditions:

'$\varphi \,\square\!\!\rightarrow \psi$' is true at the actual world iff either:

(1) there are no possible φ-worlds, or

(2) some φ-world where ψ holds is closer to @ than any φ-world where ψ doesn't hold.

(i.e. that there are no φ-worlds) becomes redundant. So, under a model which incorporates impossible worlds, the second disjunct alone is sufficient to provide the truth conditions for all counterfactuals, including counterpossibles.

Zagzebski suggests that we order the system of impossible worlds, which come in two types (i.e. 'interesting' and 'contradictory') by the following two principles:

(Z1)   Any impossible world will be further from @ than any possible world.

(Z2)   Any impossible world in which a contradiction is true will be further away from @ than any world in which an IIP is true.

The suggestion is, therefore, that in the system of worlds surrounding a world, *w*, every *accessible* world is closer to *w* than any *in*accessible world. Principle (Z2) seems to be motivated by

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[149] Stalnaker's account is more akin to the premise semantics of Angelika Kratzer (1989). For Stalnaker, the important notion in our evaluation of counterfactuals is that of *mutilations* to a set of propositions. He makes no use of similarity relations and worlds.

[150] Though, for what it's worth, I think that the various merits and demerits of the Lewis' view will hold *mutatis mutandis* for Stalnaker's.

Zagzebski's desire to maintain TT (the triviality thesis) for counterpossibles with contradictory antecedents, and principle (Z1) seems to be the same principle as what Daniel Nolan (1997: 550) terms the *strangeness of impossibility criterion*: any possible world is more *similar* to @ than any impossible world. Nolan (*ibid.*) explains that the plausibility of this principle comes from the fact that when we entertain counterfactuals, we tend to only consider *possible* worlds; usually, we consider impossible worlds too remote to be relevant. If I wonder, for example, whether the proposition that 'if I'd stayed at home yesterday, I wouldn't have met Kim Deal at the gig' is true or not, I do not entertain those worlds where I stay in but nonetheless do meet Kim Deal at the gig because *I can be in two places at once*. These kinds of impossibilities seem wholly irrelevant to our evaluation of the truth values of counterfactuals likely to be uttered.

Now that we have introduced a system of impossible worlds, we can see how we can evaluate:

(GC*) God doesn't exist $\square\rightarrow$ the universe doesn't exist

(GU*) God doesn't exist $\square\rightarrow$ the universe exists.

To do so, we look to the closest impossible world to @ in which God doesn't exist, and check to see whether or not the universe exists. But since, according to classical theism, it is a necessary truth that everything that exists depends on God, then, in the closest (*im*possible) world to @ in which God doesn't exist, the universe does not exist. Hence, we can evaluate (GC*) as true, and (GU*) as false, which is the desired result.

5.2   Assessment

(Z2)

(Z2), the criterion that the world in which a contradiction is true is always further removed from @ than any world in which an IIP is true, looks plausible for any theist who maintains that God is constrained by the laws of logic. It is also a principle which ought to be adopted, more generally, by those who wish to preserve TT for counterpossibles with contradictory antecedents. However, if one is in disagreement with Zagzebski that TT ought to be endorsed even for counterpossibles with contradictory antecedents, then there will be little reason to accept (Z2). It would not do, however, to delve into discussion of *ex falso quodlibet* here. Instead,

I will simply reiterate the point, made in §6.1, there are numerous logics which deny *ex falso quodlibet* – relevance logic is one such example.

(Z1)

(Z1), the principle that any modification which results in the denial of a necessary truth constitutes a bigger modification than one which results in the denial of *any number* of contingent truths, is the more controversial of the two principles. The principle is contentious since it seems to admit a number of counterexamples. Consider, for example, the two following impossible worlds:

World N: which contains *all* of the states of affairs which obtain in @, *and* the state of affairs: 'circles are squared'.

World O: which contains *none* of the states of affairs which obtain in @ *except for* those which obtained up to the first five seconds following the Big Bang.

It's certainly not obvious that N represents a world which is closer to @ than O. Indeed, if we consider Lewis' principles for ordering worlds in terms of their similarity to @:

(L1)   avoid big, widespread, diverse violations of law;

(L2)   maximise the spatiotemporal region throughout which perfect match of particular fact prevails;

(L3)   avoid even small, localised, simple violations of law;

(L4)   secure approximate similarity of particular fact, even in matters that concern us greatly;

then one might think that because world N contains the same laws of nature as @, and contains a far greater spatiotemporal region which matches @ in terms of matters of fact, that it is N which is closest to @. However, (Z1) implies that it is O which is closest to @. This is because N is a world in which the IIP 'circles are squared' is represented as true, whereas O does not represent any such IIP. I'm therefore in agreement with Nolan when he claims that: '[t]here are enough examples like this…to suspect that on some occasions the [strangeness of

impossibility criterion] fails, and well behaved, only slightly impossible worlds, are to be preferred to some particularly bizarre possible worlds.' (*Ibid*: 551)

Indeed, Zagzebski's contention that (Z1) be accepted as a hard-and-fast rule is in tension with Lewis' important qualification that (L1)-(L4) ought not to be *blindly* adhered to. He states that:

> The prevailing laws of nature are important to the character of a world; so similarities of law are weighty. *Weighty, but not sacred.*[151] We should not take it for granted that a world that conforms perfectly to our actual laws is *ipso facto* closer to actuality than any world where those laws are violated in any way at all. It depends on the nature and extent of the violation, on the place of the violated laws in the total system of laws of nature, and on the countervailing similarities and differences in other respects. Likewise, similarities or differences of particular fact may be more or less weighty, depending on their nature and extent. Comprehensive and exact similarities of particular fact throughout large spatiotemporal regions seem to have special weight. It may be worth a small miracle to prolong or expand a region of perfect match. (1973c: 560.)

(L1)-(L4) are principles that allow us to, in some sense, *balance off* violations of laws and differences in matters of fact. This is because similarity is a context sensitive notion – there is no objective ranking of worlds in terms of similarity; but, rather, a number of different ways of ranking the worlds depending on the context of utterance of any given counterfactual. However, (Z1), by contrast, is stated as a *categorical* rule. Therefore, it is my contention that (Z1) ought also to be considered as a *weighty, but not sacred*, rule. It seems, then, that it is because (Z1) is put forward as a strict rule that it is contentious.

A further issue for Zagzebski's proposal, however, is that it does not seem to allow us to rank impossible worlds adequately. Of course, (L1)-(L4) will help here *to an extent*, but since these principles only make reference to how worlds can vary in terms of their *possible* properties, it isn't clear how we should order worlds with respect to their *im*possible properties. Consider these two (IIP-type) impossible worlds:

World *P*:   which represents all the same atomic propositions as true as @, apart from the fact that God does not exist.[152]

World *Q*:   which represents all the same atomic propositions as true as @, except it represents the existence of a barber who shaves all and only those who don't shave themselves.

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[151] Emphasis added.

[152] Assuming, for the sake of argument, that the theist is right that God is a necessary existent.

Which of *P* or *Q* should we say is further from @? None of (Z1), (Z2), or (L1)-(L4) can help to answer this question. However, presumably, given theists' commitment to the aseity and sovereignty theses, i.e. the claim that God is the ultimate grounds of reality, the theist should consider it a further departure from reality to consider a world in which there is no God than to consider a world in which there is a barber who shaves all and only those who don't shave themselves. What one should do, then, in order to (i) make (Z1) and (Z2) compatible with Lewis' (L1)-(L4), and (ii) respect the thought that counterfactuals (and counterpossibles) are variably-strict conditionals which are context-sensitive, is to add in some *further* principles – some weighted rules – that allow us to order the impossible worlds.

It is worth bearing in mind why it is that Lewis introduces (L1)-(L4) in the first place. Kit Fine (1975: 452) presents the following counterfactual: 'If Nixon had pressed the button there would have been a nuclear holocaust.' Fine notes that this counterfactual is intuitively true, but argues that if no nuclear holocaust comes about in @, then on Lewis' analysis, the counterfactual will be false:

> For given any world in which antecedent and consequent are both true it will be easy to imagine a closer world in which the antecedent is true and the consequent false. For we need only imagine a change that prevents the holocaust but that does not require such a great divergence from reality. (*Ibid*)

Staying with the same example, Fine's thought is that a world where Nixon presses the button but there is nonetheless no holocaust is a world more similar to @ than one at where Nixon presses the button and there is a holocaust. The reason? A mere button pressing is a relatively small event, the happening (or not) of which – and considered on its own – makes for very little difference when considering the overall similarity of worlds. A holocaust, however, is in many senses a relatively big event, the happening (or not) of which does make an important difference when considering the overall similarity of worlds. Hence, because @ doesn't contain the particular holocaust event in question, a world which diverges on this matter will, all else being equal, be overall more dissimilar than one which *converges* on that matter.

Lewis responds to this problem in the following way:

> The thing to do is not to start by deciding, once and for all, what we think about similarity of worlds, so that we can afterwards use these decisions to test [the analysis]. . . Rather, we must use what we know about the truth and falsity of counterfactuals to see if we can find some sort of similarity relation—not necessarily the first one that springs to mind—that combines with [the analysis] to yield the proper truth conditions. (1979a: 43.)

[157]

Lewis, therefore, introduces (L1)-(L4) in order to rank similarity in such a way that yields the correct truth conditions. After introducing these, Lewis claims that a world in which there is a widespread violation of natural law will be more similar to @ than one in which there is difference in matters of fact. Take again the world where Nixon presses the button and the holocaust does not happen. For the holocaust to fail to happen despite the button pushing, something miraculous has to happen. At @, the button pressing is sufficient for the holocaust's happening – the laws of nature guarantee this – but not so at the world in question. Such a world cannot, then, be as similar to @ as Fine supposes. Perhaps a miracle occurs – the laws are violated – and that is what prevents the holocaust from happening. Such a world will then be substantially different from @; it will certainly be more dissimilar to @ than the one in which the button pushing and the holocaust occurs. *This* world would only require a relatively small miracle to diverge from @ – one just small enough to allow a button-pressing. Put simply: violation of laws trumps divergence of facts. It is, then, by introducing (L1)-(L4) that Lewis is able to deliver the correct truth values for such supposedly problematic counterfactuals.

Lewis considers large violations of (natural) law to be of primary importance in determining similarity relations. This is presumably because when a law of nature is broken, this has greater effect on what holds in a world than, say, when a matter of fact differs. Perhaps, then, we ought to add in the stipulation that *metaphysical* laws are of even greater importance than natural laws since they are of greater generality than the natural laws; the scope of possibility according to the metaphysical laws is greater than that according to the laws of nature. At a first pass, then, perhaps we could augment Zagzebski's account by replacing (Z1) with something more like the following:

Z1a: It is of the utmost, first importance to avoid large, widespread violations of metaphysical law.

L1': It is of the second importance to avoid large, widespread violations of natural law.

L2': It is of the third importance to maximize regions of exact match.

Z1b: It is of the fourth importance to avoid small, local violations of metaphysical law.

L3': It is of the fifth importance to avoid small, local violations of natural law.

L4: It is of little or no importance to maximize regions of approximate match.

These principles would then allow us to balance off violations of metaphysical laws with natural ones, as well as matters of fact. We cannot leave this account here, however, since

[158]

there is still the matter of considering what *kinds* of violations of metaphysical laws matter more than others (i.e. of how we order worlds like *P* and *Q*, above). There is also a further problem with backtracking counterpossibles which needs to be dealt with before we can be said to have provided an adequate semantics for theistic counterpossibles.

Backtracking Counterpossibles

'Back-tracking' counterfactuals are those counterfactuals which cite an effect as an antecedent, and a cause as a consequent. For example: *had the vase not smashed, I wouldn't have dropped it*; *had I not been in pain, the bee wouldn't have stung me*; *had she not been upset, I wouldn't have forgotten our anniversary*; and so on. These counterfactuals are problematic, since they appear to be, at first glance, true.

Lewis contends, however, that we ought to *deny* their truth. He responds that it does not follow, for example, that if the vase-smashing had not been actual, the vase-dropping would not have been actual. In such cases, Lewis states, similarity with respect to *actual present and past fact*s outweighs similarity with respect to laws. Use of (L1)-(L4) allows us to analyse backtrackers as false, since a world in which the effect and the cause fail to occur will be a world in which laws are violated. However, a world in which the effect fails to occur even though the cause does still occur is a world in which there is only a small violation of law (or a difference in matters of fact). So, in the *closest* possible world in which the vase does not smash, it is still the case that I drop it. As Daniel Hausman (1998: 113) explains: '[s]ince perfect match counts so heavily in determining overall similarity among possible worlds, the closest possible world without the effect, *b*, will not diverge from the actual world until after the cause, *a*, occurs.

As Alastair Wilson (2016) points out, it is not just standard counterfactuals which invite backtrackers; certain *counterpossibles* invite backtrackers too. In the discussion that follows, I will take a brief detour to outline Wilson's proposal for dealing with these, before turning to suggest how we can incorporate this into Zagzebski's semantics in order to fully flesh out her theory.

Wilson suggests that there is a 'systematic and suggestive analogy between grounding and causation' (MS: 1), and that the reason why there are so many commonalities between the two is because grounding is a *type* of causation. So, 'when A grounds B, A is a (metaphysical) cause of B and B is a (metaphysical) effect of A.' (*Ibid.*) Now, I do not wish to take a stance on whether or not Wilson is correct in his identification of grounding as a type of causation (i.e. as 'metaphysical causation'); however, I do want to make use of his claim that there is a

'systematic connection between grounding claims and their corresponding counterfactuals' (2016: 3). Wilson gives some examples of grounding relations which includes the following:

Singleton: The existence of Socrates grounds the existence of singleton Socrates.

Double-negation: The truth of P grounds the truth of ¬¬P.

Euthyphro: God's desiring that P grounds its being good that P. (MS: 12)

Wilson supposes that each of these claims is true. He then argues that, if grounding is metaphysical causation, and if causation entails counterfactual dependence (CECD), then each of the following (which are also counterpossibles) will also be true:

CF[153]-Singleton: If Socrates had not existed, neither would singleton Socrates.

CF-Double negation: If P had not been true, nor would ¬¬P have been.

CF-Euthyphro: If God had not desired that P, P would not have been good. (*Ibid*: 7)

However, Wilson notes that there are corresponding counterfactual claims, which reverse the metaphysical dependence (i.e. the direction of grounding):

RCF[154]-Singleton: If Singleton Socrates hadn't existed, Socrates would not have existed either.

RCF-Double negation: If ¬¬P had not been true, P would not have been true either.

RCF-Euthyphro: If P hadn't been good, God wouldn't have desired it. (*Ibid*: 13)

Each of these reverse counterfactuals look to have equal claim to being true as do their standard (i.e. non-reversed) counterfactual. Wilson's proposal to block these kinds of metaphysical backtrackers is to appeal to an 'order of being'. He explains:

> The word 'back-tracking' does not properly capture what is wrong with the RCF reverse metaphysical dependence counterfactuals. Unlike the smashing-to-throwing counterfactual, the RCF counterfactuals do not track back in time from the (supposed) cause and then forward again to the (supposed) effect; they instead track down in the 'order of being' from the (supposed) cause and then back up to the (supposed) effect. So we might call them down-trackers, using the collective term wrong-tracker to cover both back-trackers and down-trackers. (MS: 18)

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[153] CF stands for 'counterfactual'.
[154] RCF stands for 'reverse counterfactual'.

Wilson notes, however, that there is no apparent basis for the asymmetry in the metaphysical order of being, 'no physical quantity which is determined in a lawlike way to be greater for a grounding entity than for the grounded entity.' (*Ibid.*) Given that we are considering grounding relations here, we cannot therefore appeal to any physical or time-asymmetries to rule out down-tracking counterpossibles It therefore looks like reality lacks the relevant feature needed to get the Lewisian manoeuvre off the ground. Likewise, in the theistic case, the problem is that we cannot appeal to any *physical* or *time*-asymmetries to rule out down-tracking counterpossibles such as:

(D3*)   The universe doesn't exist □→ God doesn't exist

However, fortunately, there are grounding asymmetries which the theist can appeal to in order to rule out their problematic down-trackers, namely, the sovereignty and aseity theses. My suggestion is that the theist has some divine 'laws' here: God is the ultimate ground of all other facts, and God's existence is not grounded by any facts external to him. Given this, we can amend the extended Lewisian model, for the final time, as follows:

T1:   It is of the utmost, first importance to avoid large, widespread violations of theistic (i.e. God-involving) law.

Z1a: It is of the second importance to avoid large, widespread violations of metaphysical law.

T2:   It is of the third importance to avoid small, local violations of theistic law.

L1':   It is of the fourth importance to avoid large, widespread violations of natural law.

L2':   It is of the fifth importance to maximize regions of exact match.

Z1b: It is of the sixth importance to avoid small, local violations of metaphysical law.

L3':   It is of the seventh importance to avoid small, local violations of natural law.

L4:   It is of little or no importance to maximize regions of approximate match.

This allows us to evaluate (GC*) as true, (GU*) as false. The counterfactual, (D1*) will also (correctly) be evaluated as false because it is a metaphysical backtracker.

6. Conclusion

I began by noting that the commonly-held thesis CECD poses a problem for the thesis, since for a large number of statements involving divine action, the corresponding counterfactual claims are counterpossibles. It isn't immediately obvious how one is to reason about counterpossibles, especially since the standard semantics evaluates such counterfactuals as trivially true. I presented three extant versions of theistic semantics for counterpossibles already on offer due to Leftow, Davis, and Zagzebski. I have shown that each of these accounts, as they currently stand are problematic. The problems facing Leftow's view are sufficiently damaging for the theist to reject it. The views of Davis and Zagzebski proved to be far more successful. With some amendments, Davis' account gives the theist resources to provide assertability conditions for theistic counterpossibles. However, the account requires the theist to revise their logic in a way that some may consider to be too costly. Zagzebski's account, however, requires no such revision of logic. I have argued that, as it stands, Zagzebski's account is not fine-grained enough to adequately assess *all* counterpossibles, but that if it is combined with some suggestions made by Alastair Wilson (2016) with regards to grounding and orders of being, it can, in fact provide a satisfactory semantics for divine counterpossibles, thereby making way for the theist to endorse the popular claim CECD.

CONCLUSION

I began this thesis by outlining a number of problems for the coherence of divine causality. These problems stemmed from the fact that the following commonly-held metaphysical claims that:

1. causes cannot necessitate their effects,
2. causation is governed by laws of nature,
3. causation is not systematically overdetermined,
4. causation is a necessarily temporal relation,
5. action should be understood in causal terms,
6. causation entails counterfactual dependence,

stand in tension with a number of theistic doctrines. Each of chapter in this thesis has taken one of these metaphysical causal claims, (1)-(6), as its focus and attempted to find ways of resolving the problems they pose for the coherence of divine causality.

In Chapter I, I presented Quentin Smith's argument against the logical possibility of an ODC (originating divine cause). Smith's contention was that divine willings necessitate their effects, but that since no cause can logically necessitate its effect(s), and ODC requires that God's willing that the universe exist is the cause of the universe's existence, it is logically impossible that there be an ODC. Smith's argues, therefore, that claim (1) above directly conflicts with divine causation. I argued that this argument relies on a category error, since causation is concerned with metaphysical, and not logical possibility. I next argued that a revised Smith-style argument which was framed in terms of metaphysical possibility fails to show that an ODC is metaphysically impossible, since it is subject to a dilemma, according to which either nothing is a cause, or its premises are false. The chapter concluded, then, that the arguments considered fail to show that an ODC is either logically or metaphysically impossible.

Having made the case for the logical and metaphysical possibility of divine causality, I turned, in Chapter II, to consider the apparent tension between the causal thesis that there are governing laws of nature, and the theistic claims that God is sovereign over creation and exists *a se*. After outlining various types of accounts that are available with respect to the laws of

nature, I focussed on Foster's metaphysically robust, anti-singularist account of laws which views laws as governing from the top down. I argued that these features of his account are problematic, since they stand in tension with the divine sovereignty and aseity theses. I consequently concluded that the best account of God's relation to regularities and laws of nature must take a singularist and bottom-up view of natural laws, and that *dispositional essentialism* uniquely provides this. I concluded, therefore, that by adopting dispositional essentialism, theists can resolve the apparent tension between governing laws of nature and the commitments of classical theism. In presenting the theist with independent grounds for endorsing dispositional essentialism, Chapter II had the further result of demonstrating that the objections levelled against Smith, which postulated some form of dispositional essentialism, were not simply *ad hoc*.

In Chapter III I presented the widely-held metaphysical thesis that any successful causal theory ought not to entail systematic causal overdetermination. I presented the traditional debate over how divine conservation ought to be understood, and argued that extant views of conservation are subject to the problem of entailing systematic causal overdetermination. I next argued, however, that if theists adopt a version of spacetime substantivalism, then they will have the resources by which to characterise divine conservation in such a way that God's conserving action is understood to be active and necessitating without thereby entailing either occasionalism or overdetermination, and consequently as providing a metaphysical picture in which there can be diachronic identity of material objects as well as secondary causation. The overall conclusion of this chapter was, therefore, that divine conservation is not necessarily in conflict with the no systematic causal overdetermination thesis (NSCO).

Chapter IV examined the theistically problematic thesis that causation is a necessarily temporal relation (i.e. that causation entails temporality, CET). The chapter explored two main grounds one could have for endorsing CET, namely, Locality and Causal Theory. After dismissing the argument from Leftow, that inconsistency between divine atemporal causation and Locality is merely apparent, I next argued that causation by abstracta (including absences) is a coherent concept. I concluded in the first half of the chapter that the theist therefore has reasonable grounds for rejecting Locality. The second half of the chapter focussed on Causal Theory. I argued that there are a number of problems facing this theory, and further, that the most widely-discussed argument in favour of it is fallacious. Unlike the first three chapters, which concluded that their respective causal theses are not in fact in tension with theism, the conclusion of Chapter IV was that theists are warranted in *rejecting* CET.

[164]

In Chapter V I noted that there are a number of problems confronting a traditional theistic conception of divine *agency*. Whilst the claim that agency is a causal notion is not in itself problematic for classical theism, there are a number of other theses closely associated with it that are. These include the claims that (i) mental events are the causes of actions, (ii) actions are bodily movements, and (iii) actions are events. These are problematic because they do not square with the claims that God is an incorporeal, atemporal, uncaused cause. I began by outlining the standard event-causal model of agency and some reasons for thinking that it cannot be extended to an account of divine action. I next presented the rival agent-causalist view and argued that it provides a more promising account of divine agency. After presenting some challenges to theistic agent-causalism, I concluded that Steward's version of agent-causalism provides the theist with a plausible model of divine agency – one which successfully circumvents the problems posed by the claims (i)-(iii).

Finally, in Chapter VI, I departed from discussion of various metaphysical issues to consider a semantic concern. I began by noting that the commonly-held CECD[155] thesis poses a problem for the theist, since for a large number of statements involving divine action, the corresponding counterfactual claims are counterpossibles. I presented three extant versions of theistic semantics for counterpossibles already on offer due to Leftow, Davis, and Zagzebski. I presented some decisive objections to Leftow's account, and argued that Davis' semantics successfully evaluates divine counterpossibles but in doing so incurs the cost of rejecting classical logic. I then argued that, as it stands, Zagzebski's account is not fine-grained enough to adequately assess *all* counterpossibles, but that if it is combined with some suggestions made by Wilson with regards to grounding and orders of being, it can, in fact provide a satisfactory semantics for divine counterpossibles, thereby making way for the theist to endorse the popular claim CECD.

In sum, I have argued that the possibility of divine causation is not threatened by any of (1)-(6). I have shown that claims (1), (2), (3), and (6) may be reconciled with the commitments of classical theism, and that claims (4) and (5) can be justifiably rejected by the theist.

There is room for further work to be done, however. Whilst I have achieved my initial aim of clearing the way for theists to hold a notion of divine causality that is in both logical and metaphysical good-standing, there is still scope for a positive account of divine causation to be put forward: *what exactly should the theist say that causation consists in?* Further, the proposal

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[155] Causation entails counterfactual dependence.

forwarded in Chapter III provided a novel account of how theists ought to understand divine conservation, as well as its relation to divine creation; one might wonder how this substantival account of conservation fits with the extant metaphysical theories of time (if any). For the account suggests that divine conservation involves (in part) *creation ex nihilo* of substantival spacetime points. Since God is, on the classical picture, atemporal and immutable, it seems that, on the face of it at least, this account would fit most naturally with an eternalist view of time. If this is the case, though, then it will need to be shown how the account allows for both divine and non-divine freedom, as well as divine intervention. Additionally, more work could be done to defend the thesis of theistic dispositional essentialism. In Chapter II I argued that endorsing a realist view of dispositional properties provides the theist with the best account of natural laws. Further work to show which view of what these properties themselves are, would also be prudent, however. I suggested a neutral monism with regard to the dispositional/categorical distinction, but additional research into the relative costs and benefits of such a view would strengthen this proposal. Lastly, it was noted at the outset that this thesis would not be attempting to tackle the apparent challenge to divine causality posed by the conserved quantity or energy transfer views of causation. This was because, I suggested, the thesis that causation involves transfer of some kind of quantity does not appear to be a thesis about what causation is *essentially* like. I argued that it's not obvious that such accounts do more than describe causation as it is in the actual world. Given, though, that no chapter of this thesis properly addressed this issue, further work which advanced some more thoroughgoing argument on this topic would strengthen the theist's case for a coherent concept of divine causality.

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