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CAUSATION: AN ESSAY ON THE METAPHYSICS OF THEISM

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A DISSERTATION APPROVED FOR THE
DEPARTMENT OF PHILOSOPHY

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INTRODUCTION

This dissertation is an attempt to understand and assess the traditional idea that God is not only the creator of the contingent world, but also its sustainer or conservator. Thus, it is a contribution to the field of philosophy of religion – or perhaps, philosophical theology. But I would add that it is equally a work of metaphysics. After all, creation and conservation are fundamentally *causal* notions, so the attempt to understand them is really an attempt to understand divine causation. For theists, divine causation plays a particularly important role in metaphysics. God is no mere cause among other causes. Rather, God is the *primary* cause and all other causes are *secondary*, in some sense derivative from and dependent upon God. But in what sense, exactly? Is it simply that God is the *first* cause – that if God had not gotten things rolling in the first place nothing else would have happened? That is surely part of it, but only deists stop there. As I already suggested, more traditional theists have maintained not only that God got things rolling at the initial moment of creation, but also that God keeps things rolling by continually and actively conserving the creation. All contingent reality depends immediately upon God for both its initial and its continued existence. Thus, for traditional theists creation and conservation are some of the most fundamental aspects of metaphysics, second perhaps only to the existence and nature of God. Moreover, as we will see in later chapters, creation and conservation are connected in interesting and

potentially problematic ways with other central metaphysical issues such as persistence and secondary causation.

Although a handful of contemporary theists have begun addressing these topics, much more work is needed. Recent philosophical discussions of creation and conservation have been limited to scattered articles and book chapters; to date, they have not yet been given an extended, book-length treatment. Thus, the present work is hardly intended to provide the last word on the subject. (There rarely, if ever, is such a thing in philosophy anyway.) I am sure that many will take issue with some of the particular conclusions I defend, but hopefully by approaching creation and conservation systematically I can at least move the discussion forward by clarifying the central problems and identifying some of the most plausible solutions.

The dissertation is divided into three parts and I have attempted to make it as easy as possible to read each part (and in some cases, individual chapters) independently. Thus, I occasionally pause to repeat and summarize key points from earlier parts and chapters, and I sometimes refer readers directly back to relevant portions of previous chapters. Nevertheless, the latter parts do build upon the discussions and the conclusions defended in earlier parts, so they are most naturally read consecutively as a single continuing narrative. Following is a chapter-by-chapter summary of the contents.

Part I is devoted to the task of “Understanding Conservation.” Chapter One will provide a brief overview of the historical context. Here we will see that over time divine conservation of the contingent world came to be understood as a continuous act of creation. The next two chapters will closely examine two contemporary attempts to analyze conservation. Chapter Two introduces Philip Quinn’s *ex nihilo* model of

conservation, which is firmly rooted in the continuous creation tradition, and Chapter Three discusses William Craig's agent-patient model, which rejects that tradition and purports to offer a better alternative. I will defend Quinn's more traditional *ex nihilo* model, arguing that it offers an internally coherent account of creation and conservation while the agent-patient model is fraught with serious internal difficulties. But although the continuous creation tradition offers an internally coherent account of creation and conservation, it faces two important *external* challenges. These will be the subjects of Parts II and III.

Part II, "Continuous Creation and Persistence," is concerned with the allegation that continuous creation is incompatible with persistence. The ontological commitments of continuous creation play an important role in this discussion. Chapter Four will consider Jonathan Edwards's thesis that continuous creation entails an ontology of instantaneous temporal parts. If Edwards's thesis is correct, then continuous creation is incompatible with our commonsense understanding of persistence as endurance through time, but it would appear to comport nicely with the theories of persistence offered by contemporary temporal parts theorists – worm theory and stage theory. However, I will argue that upon closer examination neither worm nor stage theory are legitimate options for continuous creationists: thus, Chapter Four concludes that *if* Edwards's thesis is correct, then continuous creation and persistence are indeed incompatible. However, in Chapter Five I will show that Edwards's thesis can be resisted and that continuous creation is compatible with an ontology of enduring continuants. Thus, continuous creation is compatible with persistence as it is understood by endurantists, although not as it is understood by temporal parts theorists.

Finally, Part III addresses the even thornier problem of reconciling “Continuous Creation and Secondary Causes.” In Chapter Six we will examine Malebranche’s powerful argument that continuous creation entails occasionalism, the unpopular and disturbing view that there are no genuine secondary causes and that God alone is a true cause. Chapter Seven will assess three strategies for reconciling continuous creation with genuine secondary causes: causal overdeterminism, strong concurrentism, and weak concurrentism. I will argue that only weak concurrentism holds any real promise of an adequate reconciliation. But in order to offer a plausible alternative to occasionalism, weak concurrentism must offer some plausible account of secondary causation. One weak concurrentist, Philip Quinn, has attempted to meet this challenge and in Chapter Eight I will critically evaluate his argument. Quinn contends that weak concurrentists can help themselves to any of three popular approaches to secondary causation – regularity, counterfactual, or necessitarian theories. However, I will demonstrate that reductionist theories of causation, such as the regularity and counterfactual theories, are not legitimate options for weak concurrentists; their choices are limited to non-reductionist theories such as the necessitarian theory. Thus, I will argue that continuous creationists can respond adequately to each of the external objections raised against the doctrine, but only if they accept certain positions on controversial metaphysical issues. More specifically, continuous creationists are forced to accept the endurantist account of persistence and a non-reductionist approach to secondary causation.

PART I

Understanding Conservation

The world was not just placed into existence once, at the beginning of all things, in such a way that it would have been left on its own afterwards. Rather, every creature is in need of conservation of its existence in every moment, and according to theological tradition such conservation is nothing else but a continuous creation. This means that the act of creation did not only take place in the beginning; it occurs at every moment.

- Wolfhart Pannenberg (1988, p. 8)

CHAPTER ONE

Conservation and the Continuous Creation Tradition

The idea that the world's dependence upon God extends far beyond the initial act of creation has roots in the scriptures of each of the three major theistic religions. True, the creation story in Genesis does depict God as creating for six days and then resting, but it is rather doubtful that God's rest is intended to be understood literally. In many other passages, the Jewish scriptures portray Yahweh as actively involved in all the workings of nature. Consider, for example, Psalm 104:10-15¹:

He makes springs pour water into the ravines;
it flows between the mountains.
They give water to all the beasts of the field;
the wild donkeys quench their thirst.
The birds of the air nest by the waters;
they sing among the branches.
He waters the mountains from his upper chambers;
the earth is satisfied by the fruit of his work.
He makes the grass grow for the cattle,
and plants for man to cultivate—
bringing forth food from the earth:
wine that gladdens the heart of man,
oil to make his face shine,
and bread that sustains his heart.

The Qur'an contains similar portrayals of Allah's relationship to nature:

Surely, it is Allah Who causes the grain and the date-stones to sprout. He brings forth the living from the dead and it is He Who brings forth the

¹ Other similar passages include Psalm 29; Psalm 65:9-13; Psalm 147:8-9, 16-18; and Psalm 148. Cf. God's speech to Job in Job 38 and 39.

dead from the living. That is your Allah; wherefore, then are you turned back? He causes the break of day, and has made the night for rest and the sun and the moon for reckoning time. . . . It is He Who sends down water from the sky.²

Of course, such poetic passages are susceptible to a variety of interpretations, so their metaphysical significance is hardly beyond dispute. Nevertheless, they are quite naturally understood as affirming that God is intimately involved in even the most commonplace of natural events.

A handful of passages in the Christian New Testament also indicate that the creation is continually dependent upon God. In Acts 17:27-28 Paul tells the men of Athens that God “is not far from each one of us. For in him we live and move and have our being.” And in Colossians 1:15-17 Paul first states that Christ created all things and then adds that “in him all things hold together.” Similarly, the author of Hebrews describes Christ as “sustaining all things by his powerful word” (1:3).

In light of such scriptures, it is perhaps no surprise that theologians and philosophers in all three traditions have ascribed the continuation of the world to God’s conserving activity. What is perhaps more surprising is how little disagreement there has been over the nature of this act of conservation. Over time, the doctrine of conservation evolved into the doctrine of continuous creation. As we will see below, there has been a remarkable consensus among traditional theists that God’s conservation of the world should be understood as a continuous act of creation.

It is not clear who first formulated the doctrine of conservation explicitly, nor is it clear who first identified conservation with continuous creation. A clear statement of the

² The quoted passage is 6:96-100. The translation is from Khan (1997) pp. 129-30.

doctrine of conservation can be traced back at least as far as St. Augustine (354-430), who wrote,

[T]he power and might of the Creator, who rules and embraces all, makes every creature abide; and if this power ever ceased to govern creatures, their essences would pass away and all nature would perish. When a builder puts up a house and departs, his work remains in spite of the fact that he is no longer there. But the universe will pass away in the twinkling of an eye if God withdraws His ruling hand.³

Conservation was also defended by the medieval Jewish philosopher, Maimonides (1138-1204). In *The Guide for the Perplexed*, Maimonides offered the following response to certain theologians who claimed that the universe could continue to exist even if, *per impossibile*, God himself ceased to exist:

They would be right, if God were only the maker of the Universe, and if its permanent existence were not dependent on Him . . . God, however, is Himself the form of the Universe, as we have already shown, and it is He who causes its continuance and permanency.⁴

The idea that conservation should be identified with continuous creation might have originated with the Islamic occasionalists, Ash'ari and his followers. As David Burrell notes, these thinkers held that God alone is an active agent, and they understood all divine action as creation.⁵ Al-Ghazali (1058-1111), for example, maintained

that all contingent things, their substances and accidents, which occur in the essences of living beings and inanimates, occur through God's power and that He is unique in their creation, and not one of the created things

³ Augustine (393) p. 117. Cf. chapter eight of *De Immortalitate Animae*; Augustine (387) pp. 71-3.

⁴ Maimonides (1190) p. 105.

⁵ Burrell (1993) p. 52.

occurs through another [i.e. none by contingent power or *tawallud*] but rather all occur through God's power.⁶

In the Christian tradition, Aquinas (1225-1274) was at least an influential precursor of the continuous creation tradition, if not one of its earliest outright proponents. In the *Summa Theologiae* he quotes Augustine's characterization of conservation approvingly, and offers similar characterizations of his own. He distinguishes between two ways of preserving the existence of another thing. The first way is indirect: the existence of a being can be preserved by protecting it from some "destructive force" (as, for example, a parent preserves a child's life by preventing the child from falling into a fire). Aquinas continues:

The second is a per se and direct way of preserving a thing in existence, insofar, namely, as the thing preserved is so dependent that without the preserver it could not exist. This is the way that all creatures need God to keep them in existence. For the *esse* of all creaturely beings so depends upon God that they could not continue to exist even for a moment, but would fall away into nothingness unless they were sustained in existence by his power . . .⁷

Shortly below, Aquinas ties conservation (or preservation) directly to the act of creation when he comments that "God does not maintain things in existence by any new action, but by the continuation of the act whereby he bestows *esse*."⁸

Later Christian thinkers would confirm Aquinas's opinion even more explicitly and emphatically. For example, Suarez (1548-1617) wrote: "conservation is not an action different from the production (or creation), except merely conceptually or because of

⁶ The passage is from the first chapter of al-Ghazali's *Al-Iqtisad Fil-I'tiqad* (or, *Median in Belief*). The translation is from Abu Zayd (1990) pp. 20-1.

⁷ Aquinas (1273) [*ST*] Ia, q 104, a 1. Cf. Aquinas (1265) [*ScG*] 3.65.

⁸ Aquinas (1273) [*ST*] Ia, q 104, a 1, ad 4 (my emphasis).

some connotation and relation. . . . the conservation and the [initial] action are not in reality two actions.”⁹ He went on to explain that the conceptual difference between creation and conservation consists simply in the fact that “an entity (i) is not said to be conserved at the first instant at which it is created and (ii) is not said to be created after the first instant during the rest of the time in which it is conserved.”¹⁰

Although much of medieval philosophy was called into question during the modern period, continuous creation only found more and more support. Descartes (1596-1650) defended the doctrine in numerous places, most famously in the following passage from his “Third Meditation”:

For it is quite clear to anyone who attentively considers the nature of time that the same power and action are needed to preserve anything at each individual moment of its duration as would be required to create that thing anew if it were not yet in existence. Hence the distinction between preservation and creation is only a conceptual one, and this is one of the things that are evident by the natural light.¹¹

Unsurprisingly, many of Descartes’s followers endorsed continuous creation as well. For example, Malebranche (1638-1715) defended it at length in the seventh of his *Dialogues on Metaphysics and Religion*, and as we will see in Chapter Six, the doctrine served as a premise in his most powerful argument for occasionalism. But continuous creation also had influential supporters outside of Cartesian circles. For example, Leibniz (1646-1716) writes in his *Theodicy*:

⁹ Suarez (1597) 21.2.3.

¹⁰ Suarez (1597) 21.2.7.

¹¹ Descartes (1984) p. 33. See also Descartes (1984) p. 254; and Descartes (1985) pp. 133, 200, and 243.

[W]e must bear in mind that conservation by God consists in the perpetual immediate influence which the dependence of creatures demands. This dependence attaches not only to the substance but also to the action, and one can perhaps not explain it better than by saying, with theologians and philosophers in general, that it is a continued creation.¹²

And Berkeley (1685-1753) wrote in a letter to Samuel Johnson:

Those who have all along contended for a material world have yet acknowledged that *natura naturans* (to use the language of the Schoolmen) is God; and that the divine conservation of things is equipollent to, and in fact the same thing with, a continued repeated creation: in a word, that conservation and creation differ only in the *terminus a quo*. . . . it is no disparagement to the perfections of God to say that all things necessarily depend on Him as their Conservator as well as Creator, and that all nature would shrink to nothing, if not upheld and preserved in being by the same force that first created it.¹³

One of the lengthiest discussions of continuous creation is found in Jonathan Edwards's (1703-1758) treatise on the doctrine of original sin where he contends that "God's *preserving* of created things in being, is perfectly equivalent to a *continued creation*, or to his creating those things out of nothing at *each moment* of their existence."¹⁴ And even more emphatically:

God's upholding of created substance, or causing of its existence in each successive moment, is altogether equivalent to an *immediate production out of nothing*, at each moment. Because its existence at this moment is not merely in part from *God*, but wholly from him; and not in any part, or degree, from its *antecedent existence*. . . . *God* produces the effect as much from *nothing*, as if there had been nothing *before*. So that this effect differs not at all from the first creation, but only *circumstantially*; as, in *the first* creation there had been no such act and effect of God's power *before*: whereas, his giving existence afterwards, *follows* preceding acts and effects of the same kind, in an established order.¹⁵

¹² Leibniz (1710) p. 139.

¹³ Berkeley (1729), pp. 345-346.

¹⁴ Edwards (1758) p. 989 (his emphases).

¹⁵ Edwards (1758) p. 990 (his emphases).

To my knowledge, Edwards was the first continuous creationist to explicitly discuss the doctrine's relationship to persistence. We will consider his views on that subject in Chapter Four.

A more complete survey could continue almost indefinitely, but the foregoing should be more than sufficient for our purposes. The thinkers quoted above represent a variety of time periods and philosophical traditions, and so their harmony on the topic of divine conservation is rather remarkable.¹⁶ Of course, given the diversity of their metaphysical views, there are bound to be subtle, and perhaps not so subtle, differences in their understandings of the act of creation. (Berkeley and Descartes, for example, would offer rather different explanations of what God must do to create a tree; on the other hand, they would likely offer quite similar explanations of what is involved in creating a human soul.) Nevertheless, such differences aside, these thinkers are all of one mind about the following point: *whatever* God does in creating an entity is the very same thing God does in conserving it. Conservation, they agree, is simply a continuation of creation. Moreover, it is noteworthy that Descartes, Leibniz, and Berkeley all indicated that this view was widely accepted among philosophers and theologians.¹⁷

Thus, the doctrine of divine conservation – and more specifically, the doctrine of continuous creation – has an important place in traditional theism, and it deserves more

¹⁶ In addition to a host of other historical figures, some contemporary thinkers who could be quoted include John Polkinghorne (1989) p. 54; Richard Swinburne (1993) p. 1; David Braine (1988) p. 180; Christopher Menzel (2001) pp. 71-3; and Thomas Morris (2002) pp. 154-8.

¹⁷ Leibniz and Berkeley say this in the quotations above. Descartes says it in Descartes (1985) p. 133; and Descartes (1984) p. 254.

rigorous philosophical treatment. In the chapters that follow we will examine two recent attempts to analyze the concepts of creation and conservation. In Chapter Two we will consider Philip Quinn's account, which attempts to remain as faithful as possible to the continuous creation tradition. And in Chapter Three we will consider William Craig's criticism of the continuous creation tradition and his alternative approach to creation and conservation.

CHAPTER TWO

Conservation *ex Nihilo*

The God of traditional theism is both the creator and conserver of all contingent things, and we have seen that the time-honored conception of conservation is that of a continuous act of creation, or simply continuous creation. In this chapter and the next, I will carefully examine two contemporary attempts to analyze the notions of creation and conservation. Although both accounts understand creation similarly, they part ways significantly when it comes to conservation. In order to provide a background against which we may contrast these alternative models of conservation, I begin this chapter with some reflections on the nature of creation *ex nihilo*. In section two, I present Philip Quinn's account of creation and conservation. I refer to Quinn's approach to conservation as the *ex nihilo* model of conservation because it attempts to remain as faithful as possible to the tradition of identifying conservation with continuous creation. Our goal in this chapter is simply to better understand the continuous creation doctrine. We will not yet worry about criticisms of the doctrine or the philosophical puzzles it raises; these will be discussed in detail in later chapters.

I. Creation *ex Nihilo*

We commonly speak of sculptors creating statues, toddlers creating messes, beavers creating dams, and so on. In each of these instances, something is created out of

preexisting things, and the act of creation is in some sense non-basic. In each instance, it makes sense to ask what the creator *does* in order to create, and the answer to that question will point towards various more basic actions performed upon preexisting materials. Sculptors create statues by hammering and chiseling away at hunks of marble; toddlers create messes in countless ways, throwing food and spilling cups full of juice, to name just a few; and beavers create dams by strategically felling trees and then filling the gaps between them with stones and mud. Of course all of these actions, although *more* basic than that of creating, are non-basic as well. The sculptor chisels away at the marble by performing even more basic actions such as grasping the chisel, carefully positioning it, and striking it with a hammer. It seems that the analysis must eventually bottom out with actions that are basic *simpliciter* (although it is surprisingly difficult to define the concept of a basic action precisely or to determine which specific actions deserve that status).¹ It is often assumed that simple body movements – e.g. raising one’s hand, turning one’s head, or moving one’s finger² – are paradigm cases of basic actions, but even these can be problematic.³ Richard Swinburne (1997) suggests that the truly basic actions are what he refers to as “tryings.” For example, more basic than my moving my finger is my *trying* to move my finger. In most ordinary circumstances “tryings” are immediately efficacious, and so they typically go unnoticed; but they are more noticeable

¹ Two of the first attempts at definition are Chisholm (1964) and Danto (1965). See Baier (1971) for critical discussion of their proposals.

² For present purposes, I simply set aside atypical instances of these actions such as turning one’s head by pushing it with one’s hand or moving one’s finger by grasping it with one’s other hand.

³ See McCann (1972) and Swinburne (1997) pp. 87-90.

when we consider the atypical cases in which they fail to produce their normal effects. For example, suppose that I have just been involved in a horrible accident, and a medic attending to me asks me to move my fingers. I *try*, but nothing happens, and I begin to realize that the accident has left me paralyzed. I *do* something when I try to move my finger, even though it fails in this instance to bring about any finger movements, and it seems pretty obvious that I do the same thing in ordinary instances when my finger does move. So I think Swinburne is right to suggest that my trying to move my finger is more basic than my moving my finger, and I also think he is correct that it is basic *simpliciter*. No further regress can get started since, as Swinburne puts it, “to try to try to do *x* is to try to do *x*.”⁴ Of course, not *every* instance of trying is basic. We might watch a sculptor at work and comment that she is trying to create a statue, but that is not a basic instance of trying. She tries to create the statue by trying to chip away certain bits of stone, which in turn, she tries to do by trying to strike a chisel with a hammer, and so on. For present purposes, I see no reason to worry about which tryings are ultimately basic. The point I want to emphasize is simply that neither the act of creating a statue nor the act of trying to create a statue are basic, and the same is true of other familiar examples of creating.

I think that contrasting the notion of creation *ex nihilo* with such familiar instances of creation reveals much of its import. If pressed to explain how a sculptor created a statue, we can refer to her selection of a block of marble, as well as to her manipulation of the hammers, chisels, and other tools she used to shape it.⁵ By contrast, if

⁴ Swinburne (1997) p. 87.

⁵ Bede Rundle (2004, p. 78) uses the same example – i.e. of a sculpture creating a statue – to contrast creation *ex nihilo* with more familiar instances of creation. However, he draws a rather different conclusion. According to Rundle, the fact that in creation *ex nihilo* there

pressed to explain *how* God creates things *ex nihilo*, it is far from clear what the questioner wants from us. In creating, God does not act upon previously existing things, but rather brings about the very existence of things, and so it seems that creation *ex nihilo* must be a basic act. God does not create by doing something else that is more basic; rather, God simply causes things to exist, end of story.⁶

Should we say that God's *trying* to cause things to exist is more basic than God's causing things to exist? I do not think there is any decisive consideration either in favor

is nothing to be acted upon suggests not, as I argue, that it is a primitive and basic causal notion, but rather that it is not a *causal* notion at all. But I think this is the wrong way to proceed. It strikes me as utterly obvious that creation *ex nihilo* is a causal notion. Thus, if some notion of what is causal excludes creation *ex nihilo a priori*, the conclusion to be drawn is not that creation is not causal, but rather that that notion of the causal is too narrowly circumscribed.

Nevertheless, although I disagree with the conclusion Rundle draws, he does call attention to the fact that there are interesting (and often overlooked) connections between theism and causal theories. Two conflicting papers, both by Quentin Smith, also highlight this fact. Smith (1993) argued against several popular theories of causation by assuming that the concept of a supernatural cause of the universe is coherent and then showing that the causal theories are incompatible with that assumption. Interestingly, in Smith (1996) he changes his mind and runs the argument in the exact opposite direction: that is, he argues that the idea of a supernatural cause of the universe is logically impossible because it is incompatible with extant theories of causation. See McClelland and Deltete (2000) for a point-by-point critique of Smith's (1996) argument. As they point out, Smith assumes that there must be a single definition that covers every instance of causation. But it is not obvious that this is correct. In fact, it does not seem at all implausible to assume that primary and secondary causation will require different definitions.

⁶ Perhaps a Platonist would offer a sort of further story. She might say, for example, that there was just God *and* the world of abstract objects, and that in creating, God caused some of those abstracta to be exemplified (or instantiated, or something of that sort). Of course, such an analysis would simply move the primitive causal claim back one level. What should the Platonist say if she were pressed to explain how God causes those abstracta to be exemplified? It would not seem quite right to say that God *uses* or *acts upon* the abstract objects. They do not seem to be analogous to the sculptor's tools or marble slab. Presumably, the Platonist should say that God simply wills that the abstracta be exemplified – that that is just what it is for God to create *ex nihilo* and that there is nothing more to say.

of or against saying that. I admit that it sounds paradoxical to speak of God as *trying* to do something; we usually say that someone is trying to do something only when the task is hard or when there is at least the realistic possibility of failure, and neither consideration seems applicable to God. But we are already using ‘try’ and its cognates in a somewhat technical sense that does not imply that the attempted task is difficult⁷ – e.g. moving my finger is not normally difficult – so that is no reason not to speak of God as trying. On the other hand, the fact that it is not even possible for God to try *and fail* to do something may weigh slightly against speaking of God as trying; after all, we arguably would have no reason to distinguish between my trying to move my finger and my actually moving my finger if the former never failed to be accompanied by the latter. But this is not compelling either. Even if my trying to do *x* and my actually doing *x* were inseparable, it would hardly follow that they were not distinct acts. Perhaps we would be unlikely to notice the distinction, but that is not to say that there would be no distinction to notice. The same point can be made with respect to God. So I do not see any decisive reason not to speak of God as trying in Swinburne’s sense.

But in the end, I think little hangs upon whether God’s creating or God’s trying to create is most basic. My general point is that, unlike familiar human examples of creation, creation *ex nihilo* is a basic divine act. If the strict truth of the matter is that *trying* to create *ex nihilo* is basic and that creating *ex nihilo* is a single step removed from basic, that is near enough for my purposes. Either way, the ability to create *ex nihilo* must be conceived of as a primitive causal power or capacity. Thus, one who persists in asking *how* God creates simply does not grasp the concept of creation *ex nihilo*. It is possible, of

⁷ Swinburne (1997, p. 87) notes this point explicitly.

course, that they do not grasp the concept because it is in some respect incoherent, but then the burden lies with them to demonstrate the contradiction. I am not aware of any non-question begging argument that creation *ex nihilo* is incoherent, and so I shall simply set this possibility aside.

However, I do not mean to suggest that creation *ex nihilo* is an easy concept to grasp. Quite the contrary, in admitting that there is rather little one can say in response to the question of how God creates, I am also admitting that creation is bound to remain to some degree mysterious. We should expect as much, for the power of creating *ex nihilo* is not one with which we have any experience. At the same time, I do not wish to leave the impression that creation *ex nihilo* is so utterly mysterious that we cannot meaningfully discuss it or its implications. Indeed, I believe we can draw some further conclusions concerning the nature of divine creation. For example, reflection upon the contrast between creation *ex nihilo* and creation out of preexisting things suggests that creation *ex nihilo* is instantaneous. The more familiar examples of creation (e.g. of a sculptor creating a statue) involve processes of rearranging and organizing preexistent stuff. However, creation *ex nihilo* involves no such process. To create something in this sense is to bring an entirely new entity into existence, not to refashion previously existing things. So how could creation *ex nihilo* be other than instantaneous? How can an entity be in a process of coming into being at *t* and yet not exist at *t*? Non-existent entities cannot undergo processes, so it would seem that creation *ex nihilo* must be instantaneous.⁸

⁸ Similarly, Kvanvig and McCann (1998) argue that no distinction can be drawn between the world's "coming to be" and its "being" (p. 19). Cf. McCann (1999) p. 307.

Similarly, we can characterize creation *ex nihilo* as a volitional act. If for no other reason, this conclusion is supported simply by the lack of any plausible alternative. If creation does not involve acting upon or modifying preexisting things, and if we wish to affirm a clear distinction between the creator and the created, then there simply does not seem to be any plausible alternative to conceiving of divine creation as the brute willing of things into existence.⁹ In fact, characterizing creation as volitional fits rather nicely with Swinburne's view that our truly basic acts are *tryings*. When we speak of my trying to move my finger, the most natural way to understand it, I think, is as a mental act of willing that my finger move. This also relieves some of the strangeness involved in speaking of God as trying to do something, since it is not in the least unusual to say that God wills something. God's trying to create *x* can be understood simply as God's willing that *x* exist.

Thus, we can offer at least a minimal characterization of creation *ex nihilo*: it is the basic volitional act of directly and instantaneously bringing about the existence of contingent beings. Since the continuous creation tradition understands conservation as a continuous act of creation, it seems only fitting to describe it as an *ex nihilo* model of conservation, or simply conservation_{xn}. In the remainder of this chapter we will take a closer look at this model of conservation.

⁹ I am assuming here that created beings are distinct from God's being; that is, I am assuming that pantheistic and panentheistic conceptions of the relationship between God and creation are mistaken.

II. The *ex Nihilo* Model of Conservation

An appropriate starting point for considering conservation *ex nihilo* is the contemporary work of Philip Quinn, who has developed and defended such an account of creation and conservation in a series of three essays published over the span of a decade. Although there is a great deal of continuity throughout Quinn's essays, it is perhaps to be expected that his theory evolved in certain respects in each essay. For the sake of brevity and simplicity, I will focus most of my attention on the more elegant and concise formulations of the theory that appear in Quinn (1988) and (1993), relegating most comments concerning the original formulation in Quinn (1983) to footnotes.¹⁰ Before we consider the details of Quinn's account, we must first take note of its intended scope and its primitive assumptions.

II-A. Scope and Assumptions

II-A-1. The Scope of Creation and Conservation

By *scope* I mean the domain of entities whose creation and conservation the theory is intended to explain. Quinn explicitly restricts the scope of his theory to all contingent, concrete individuals. As I understand this restriction, *concrete* is intended to be contrasted not with the immaterial, but with the abstract. Thus, concrete individuals would include both material and immaterial non-abstracta: angels and Cartesian minds, if there are such things, should be counted among the concrete individuals. However, Quinn's account leaves untouched anything that is abstract and/or necessarily existent. It is consistent, for example, with a Platonistic conception of things such as properties,

¹⁰ Quinn discussed the themes of creation and conservation in an even earlier essay – Quinn (1979a). However, his purpose in that essay was not to develop a theory, but rather to critique Robert Oakes' (1977) argument that conservation implies pantheism.

propositions, and states of affairs. According to Platonism, such entities are *sui generis* abstract objects, existing necessarily and *a se*; thus, they have no need of divine creation or conservation.

Some theists would take issue with Quinn's restricting the scope of his theory so narrowly. William Craig, for example, claims that the Christian scriptures (e.g. John 1:1-3a) portray God as creating "literally everything" distinct from himself. Thus, Craig thinks Christian theists must reject Platonism: they must either reject abstract objects entirely, or else include them within the scope of creation.¹¹ But this strikes me as misguided. It is an example of the unfortunate tendency to cite scripture in support of answers to questions its authors never intended to address. John's prologue is plausibly understood as implying that God is the creator of every *concrete* thing distinct from himself, but I find it difficult to believe that John intended to say anything whatsoever concerning the status of abstracta. Whether there are abstract objects and, if so, whether God did and/or could have created them, are all intriguing questions for philosophical speculation, but the authors of scripture simply do not address them and one's position on such issues certainly should not be treated as a test of one's orthodoxy.¹² By restricting

¹¹ See Craig and Copan (2004) pp. 167-173. For a more detailed discussion and defense of the view that the scope of creation must include everything distinct from God, see Clouser (2005) pp. 213-9.

¹² Morrision (2005 p. 354) notes with some irony: "I daresay it will come as a surprise to Alvin Plantinga – to pick just one obvious example – that his ontology is heretical, but that does seem to be the implication of what Copan and Craig say." However, it is also worth noting that several theists have attempted to make sense of the idea of God's creating abstract objects. See, for example, Morris and Menzel (1986) and Menzel (1987).

the scope of his theory to contingent, concrete individuals, Quinn focuses on what I take to be of fundamental concern to theists.

However, in order to avoid confusion later on, something more needs to be said concerning the nature of the concrete individuals that God creates and conserves. Quinn is somewhat ambivalent on this matter: in one essay he indicates that he takes common items such as tables and chairs to be individuals, but in a later essay he backtracks, leaving the identity of the individuals an “open question” in order to make room for the possibility that things such as tables and chairs “are mere aggregates composed of genuine individuals.”¹³ The latter view strikes me as far more right headed. After all, the natural thing to say about the creation of a chair is not that it is a *divine* action, but rather that it is a *human* action consisting of modifying and arranging preexisting materials.

Moreover, taking medium-sized objects like chairs to be primary objects of God’s creation and conservation seems problematic in a number of ways. First, it seems to threaten the role of secondary causes: if God created the chair I am sitting in, what shall we say of the role of its human maker? As we will see in Chapter Six, continuous creation may pose a threat to secondary causation regardless of how we characterize individuals; nevertheless, my present point is simply that the threat seems more direct if the primary objects of creation and conservation include artifacts commonly taken to be created by secondary causes. Second, taking things such as chairs and tables to be primary objects of creation and conservation saddles a theory of creation and conservation with all of the philosophical puzzles associated with such items. For example, what are the identity conditions for a chair? Is there a precise, determinate time

¹³ See Quinn (1988) p. 51 and (1993) p. 596.

at which a chair begins to exist? If not, are there times when it is indeterminate whether God is creating and/or conserving a chair? Similarly, how shall we understand the relationship between the chair and the materials that compose it? Problems of material constitution result in similar problems for creation and conservation. Is the chair distinct from the wood that composes it? If so, must we say that God creates and conserves them separately? Are they identical? What then shall we say about the fact that God began creating and conserving the wood before creating and conserving the chair? I think it would be wise to avoid such disputed issues if at all possible. I do not mean to suggest that these questions are unimportant (far from it!) or unsolvable, but I do think that worrying about them would distract us from issues more important to our inquiry into creation and conservation.

In order to sidestep such problems, I will follow van Inwagen's lead and adopt an atomic conception of the individuals God creates and conserves.¹⁴ That is, I will assume that the material world is composed of some sort(s) of fundamental, indivisible material particles, and that God's creation and conservation of the world as a whole is simply a function of God's creating and conserving these micro-level particles. For the sake of convenience and simplicity, I will focus primarily upon the creation and conservation of the material world, but readers who think the world includes contingent non-material entities – angels or Cartesian souls, for instance – can supplement this picture with atomic non-material entities easily enough.

¹⁴ See van Inwagen (1988). Here, van Inwagen treats this simply as a convenient idealization; however, in van Inwagen (1990) he defends an ontology of individuals that is nearly as minimalist. A similarly minimalist ontology of individuals is defended by Merricks (2001). See also Faber (1986) and Rosen and Dorr (2002).

As van Inwagen acknowledges, this atomic conception of things is scientifically naïve and contentious. Nevertheless, it is convenient for a number of reasons. First, to the best of my (rather limited) knowledge, contemporary physics has nothing like an agreed upon conception of the world's fundamental ontological constituents, so even if we adopted some less naïve picture, we would not thereby avoid contentiousness. Secondly, if we adopted a less naïve picture, we would doubtless sacrifice the simplicity of the naïve picture. So there are good reasons for adopting the naïve picture, and although I cannot be certain, I suspect that van Inwagen is right when he says that it is a harmless idealization – that adopting a less naïve picture would not “affect in any essential way” our philosophical discussion of creation and conservation.¹⁵ Thus, in light of its convenience, I shall assume from this point forward that what God creates and conserves are fundamental atomic particles. I will, at times, continue to speak as though God creates and conserves composite entities such as chairs, cars, and human bodies, but this should be understood as nothing more than a convenient shorthand way of saying that God creates and conserves the particles these entities are composed of.

II-A-2. Primitive Assumptions

Quinn also makes use of two primitive assumptions in his theory. The first is that time is “a linear continuum composed of point instants, with t , t' , and t'' as variables of quantification ranging over point instants of time.”¹⁶ This assumption conforms the theory with the mainstream conception of time, although as far as I can tell, it does no

¹⁵ Van Inwagen (1988) p. 212.

¹⁶ Quinn (1993) p. 596; cf. Quinn (1983) p. 57 and Quinn (1988) p. 51.

important work in the theory. That is, nothing in Quinn's analysis of creation and conservation depends in any essential way on time's being continuous.¹⁷

However, Quinn's second assumption – "that there is a special two-place relation of divine bringing about defined on ordered pairs of states of affairs"¹⁸ – is far more crucial, and his characterization of this relation is worth quoting at length. Quinn writes,

Since it is a primitive locution, I have no definition of it to offer, but I can provide a partial informal characterization of it. Obviously, it must express a relation of metaphysical dependence or causation. Beyond that, I think this relation must have the following marks in order to serve its theological purposes: totality, exclusivity, activity, immediacy, and necessity. By totality, I mean that what does the bringing about is the total cause of what is brought about; nothing else is required by way of causal contribution in order for the effect to obtain. In particular, divine volitions do not work on independently existing matter, and so no Aristotelian material cause is required for them to produce existence. By exclusivity, I mean that what does the bringing about is the sole cause of what is brought about; causal overdetermination is ruled out. By activity, I mean that the state of affairs that does the bringing about does so in virtue of the individual involved in it. By immediacy, I mean that what does the bringing about causes what is brought about immediately rather than remotely through some extended causal chain or by means of instruments. By necessity, I mean that what does the bringing about in some sense necessitates what is brought about.¹⁹

¹⁷ That is not to say that nothing *could* be modified if he adopted a discrete view of time. Because he assumes that time is continuous, Quinn cannot adopt the simple convention of using ' $t + 1$ ' to refer to the moment immediate following t (if time is continuous, t has no immediate successor). Instead, he adopts the convention of using ' Δt ' to refer to a small increment of time, and ' $t + \Delta t$ ' to refer to a moment slightly later than t . A discrete view of time would allow, although not require, him to adopt the simpler ' $t + 1$ ' convention.

¹⁸ Quinn (1993) pp. 596-7; cf. Quinn (1988) pp. 52-3. One potentially significant respect in which the earlier formulation in Quinn (1983) differs from the formulations in the latter essays is that the earlier formulation depends on an agent-causal rendering of the bringing about relation. That is, the earlier theory says simply, "*God* brings about x ," whereas the latter theories put it in terms of two states of affairs – one of God's willing that a state of affairs obtain, and the other the willed state of affairs. "God's willing that x brings about x ."

¹⁹ Quinn (1993) p. 597; cf. Quinn (1988) pp. 52-3.

With these preliminary considerations out of the way, we can summarize Quinn's account of creation and conservation briefly.

II-B. A Précis of Quinn's Account

Quinn's most concise summation of his theory of creation and conservation consists of a single axiom:

(CC) *Necessarily, for all x and t , if x is contingent and x exists at t , then God's willing that x exists at t brings about x 's existing at t .*²⁰

This formulation of the theory makes no distinction at all between creation and conservation, and so it takes the traditional claim that conservation is nothing but continuous creation quite literally. God's creating/conserving x is simply God's willing x to exist. Furthermore, Quinn is critical of those who wish to draw any deeper distinction between creation and conservation. He comments that such persons

seem to suppose that the kind of power required to create something *ex nihilo* is different from the sort of power needed merely to keep it from lapsing back into nonbeing once it has been created. Maybe they imagine God is like an athlete who needs more strength to lift a huge weight than to hold it aloft once it has been lifted.

I consider this view to be mistaken. It seems clear to me that Descartes was correct in saying that "in order to be conserved in each moment in which it endures, a substance has need of the same power and action as would be necessary to produce and create it anew, supposing it did not yet exist." In the case of conservation as well as in the case of creation, that power is whatever mysterious power that God possesses in virtue of which his volitions bring about contingent existence.²¹

²⁰ This single-axiom summary is based upon Quinn (1988) p. 54; Quinn's own wording is slightly different but equivalent.

²¹ Quinn (1988) p. 54.

Of course, Quinn is aware that we do make a distinction between creation and conservation, at least at a superficial linguistic level. In fact, he cites the authority and precedence of Scotus to this very effect. According to Scotus,

Properly speaking . . . it is only true to say that a creature is created at the first moment [of its existence] and only after that moment is it conserved, for only then does its being have this order to itself as something that was, as it were, there before. Because of these different conceptual relationships implied by “create” and “conserve,” it follows that one does not apply to a thing when the other does.²²

In keeping with Scotus’s insight and our general linguistic practice, Quinn (1993) supplements (CC) with the following definitions²³:

(Cr) *God creates x at t = def. God’s willing that x exists at t brings about x ’s existing at t , and there is no t' prior to t such that x exists at t' .*

²² John Duns Scotus (1306) p. 276. Compare Aquinas (1273) [ST] Ia, q 45, a 3, ad 3 and the quotations from Suarez in chapter 1.

²³ Quinn (1993), p. 598. Quinn’s own wording of these definitions is slightly different, but equivalent. I should also note that I am glossing over a potentially significant difference between the accounts in Quinn (1988) and (1993). Quinn (1993) replaces (CC) with the following modally weakened postulate:

(P) *For all x and t , if x is contingent and x exists at t , then God’s willing that x exists at t brings about x ’s existing at t .*

(CC) entails (P), but not vice versa. According to (CC), it is a necessary truth that every moment of the existence of all contingent beings is caused by the divine will. (P), on the other hand, is non-committal concerning the modal status of the claim. That is, (P) is consistent with supposing that God could have created contingent beings that persisted on their own, without any need of continuous divine conservation; but (P) is also consistent with the stronger position of axiom (CC). Unfortunately, Quinn (1993) offers no explanation for the change, so its significance is unclear. Perhaps it signals a shift in his conception of the modal status of the conservation doctrine, or perhaps he switched to (P) only because it is less committal and hence, less contentious. In any case, I will ignore the issue; for present purposes, I am concerned not with the question of whether things *must necessarily* be continuously conserved, but rather with how we should understand the assumption that they *are* continuously conserved. Nothing we shall say about conservation depends in any essential respect on our assuming (CC) rather than (P).

(Co) *God conserves x at t = def. God's willing that x exists at t brings about x's existing at t, and there is some t' prior to t such that x exists at t'.*

Given these definitions, the traditional claim that conservation is continuous creation is rendered false, at least in its most strict and literal sense. God creates contingent beings only in the first moment of their existence, and God conserves them at all (and only) subsequent moments of their existence.²⁴ Nevertheless, Quinn rightly points out that these definitions preserve what is most important to the traditional claim – namely, that God's *act* is the same in both creation and conservation.²⁵ What separates creation from conservation on these definitions is something extrinsic to the act itself. God does the same thing in conserving something as in creating it: in both cases, divine volitions cause the existence of an individual. Whether the volitional act is an instance of creating or conserving depends not on the intrinsic nature of the act, but simply upon whether the individual existed previously. Thus, the central and substantial assertion of Quinn's account is consonant with its theological and philosophical heritage, the continuous creation tradition: each moment of a contingent individual's existence is brought about – totally, exclusively, actively, immediately, and with necessity – by a divine volition.

²⁴ The requirement that created things must have a first moment of their existence has some interesting consequences. It implies, for example, that if the universe has always existed, then it was never created, although it has nonetheless been continuously conserved from eternity past. Even more interesting, I think, is the possibility of something which, although it has not always existed, has nonetheless existed for a finite interval that has no first moment. Such an individual would have been conserved at every moment of its finite past existence, yet never created. See Quinn (1993) p. 598.

²⁵ Compare, for example, Descartes' claim in the "Third Meditation" that "*the same power and action are needed* to preserve anything at each individual moment of its duration as would be required to create that thing anew if it were not yet in existence. Hence the distinction between preservation and creation is only a conceptual one." See Descartes (1984) p. 33, my emphasis.

II-C. Options for Completing the Picture

In the next chapter we will consider a criticism of Quinn's theory and assess an alternative account of creation and conservation. But first, I want to briefly take note of several respects in which Quinn's account is incomplete. To begin with the most obvious example, the account is non-committal concerning the timing of God's volitions relative to their effects. It tells us that if x exists at t , then that state of affairs is brought about by God's willing that x exist at t ; however, it does not specify whether God's volition occurs within time, perhaps at t or at some time prior to t , or whether it occurs at no time whatsoever in timeless eternity. Of course, incompleteness can be a virtuous trait of theories if nothing important depends upon it; there is no obvious harm in Quinn's allowing his readers to interpret the theory in light of their own favored positions on the thorny question of God's relation to time.²⁶ Still, we should keep the question of the timing of God's volitions in mind, as it may have some bearing upon the objections and puzzles discussed in later chapters.

Another respect in which Quinn's theory is incomplete and open to interpretation concerns the precise content of the divine volitions. What is it that God wills, exactly, when God wills that some individual x exists at t ? The answer to this question is unclear in several ways, and in this case I think some important issues do hang upon it. As we discuss objections to conservation *ex nihilo* in later chapters, we will find that different answers have the potential either to help resolve or to exacerbate the problems.

²⁶ Quinn's non-commitment on this issue is intentional. See Quinn (1993) p. 597; cf. Quinn (1988) p. 52. It is also one respect in which his earlier formulation of the theory differs from his latter formulations; as it is presented in Quinn (1983), the theory requires that God's volitions occur within time, simultaneous with their effects.

For example, in Chapter Five we will see that the force of the objection that continuous creation is inconsistent with persistence over time depends in part upon how we understand the temporal content of God's volitions. In order to clarify what I mean by "temporal content," consider some individual x that exists through a finite temporal interval $t \rightarrow t'$. There are two general ways we could understand the temporal content of God's volitions with respect to x . The most natural interpretation of Quinn's account is that each moment of x 's existence is brought about by a unique divine volition; thus, for any time t'' such that $t \rightarrow t'$ includes t'' , God forms a distinct volition of the form "let x exist at t'' ." However, there is another possible interpretation that could rob the objection concerning persistence of much of its force; on this interpretation, God has a single volition with respect to x 's existence – namely, God wills that x exist through the interval $t \rightarrow t'$. This is, I admit, a somewhat unnatural way to interpret Quinn's theory – Quinn always speaks of God's willing that x exist at individual moments rather than through intervals. But despite appearances, I do not think the interpretation is that much of a stretch. Even if Quinn did not intentionally leave this interpretation open, there is reason to think he would view it favorably. After all, he has elsewhere argued at length that the notions of an object's existing at a moment and of an object's existing throughout an interval are mutually inter-definable; regardless of which notion is taken as conceptually basic, the other notion can be defined in terms of it.²⁷ The same point should apply to God's volitions. We could take God's willing that x exist at an instant as basic and define God's willing that x exist through an interval in terms of God's willing that it exist at every instant included in that interval. But we could also take God's willing that x exist

²⁷ See Quinn (1979b).

through an interval as basic, and define God's willing that x exist at an instant in terms of it. After all, to will that x exist through $t \rightarrow t'$, is to will, at least implicitly, that x exist at every instant included in that interval. In Chapter Five, I will argue that continuous creation is compatible with persistence on either interpretation of the temporal content of divine volitions, but the compatibility is easier to establish for the latter interpretation than for the former.

Here is another question concerning the content of divine volitions that will be particularly pertinent to the discussion of secondary causation in Part III: do the divine volitions have descriptive content, and if so, what is that content? Unless we are prepared to conceive of individuals as bare particulars, it would seem that the volitions must include some descriptive content specifying what a created/conserved individual is to be like. In that case, the question that arises is how extensive that descriptive content must be. To foreshadow the argument of Chapter Six, if divine volitions have *complete* descriptive content – that is, if they specify for any property P whether x has or lacks P at t – then the *ex nihilo* model risks undermining all secondary causation. Quinn (1988) quite explicitly rejects the view that the divine volitions have such complete descriptive content, but he does not offer any alternative account of their content. Of course, there is no lack of possible alternatives; the view that God creates bare particulars and the view that God creates individuals with complete sets of properties are but two extremes on a continuum that seems to contain many possible intermediate positions.²⁸ It remains to be seen whether those intermediate positions can withstand scrutiny.

²⁸ A similar point is noted by McCann & Kvanvig (1991) p. 593.

But before we worry about such finer details of conservation *ex nihilo*, we must address a more fundamental concern. William Craig has argued that conservation_{xn} (and the continuous creation tradition in general) fundamentally misconstrues the distinction between creation and conservation, and he has developed an alternative account of conservation intended to better elucidate the nature of that distinction. It would be foolish to worry about choosing our exact route if we are not even sure we are looking at the right map. Thus, in the next chapter, we will consider Craig's criticism of conservation *ex nihilo* and critically assess his own alternative model of conservation.

CHAPTER THREE

Agent-Patient Conservation

In Chapter Two, I argued that Quinn’s *ex nihilo* model of conservation remains faithful to the core commitment of the continuous creation tradition – namely, that the divine acts of creation and conservation are intrinsically indistinguishable. But William Craig has recently argued that this traditional conception of conservation should be rejected. He raises several criticisms, some of which will be addressed in detail in later chapters (e.g. that continuous creation is incompatible with persistence and secondary causation). However, Craig’s most fundamental objection to conservation *ex nihilo* seems to be that it fundamentally misconstrues the “intuitive” distinction between creation and conservation. In the first section of this chapter, I will explain and assess this criticism of conservation_{xn}. In section II I will summarize Craig’s own agent-patient model of conservation, which he proffers as a superior alternative. Finally, in section III, I will identify a number of serious internal difficulties with Craig’s agent-patient model. In light of these difficulties, I conclude that Craig’s fundamental criticism of conservation_{xn} is groundless and that his agent-patient model of conservation poses no significant challenge to the continuous creation tradition.

I. Craig's Objection to Conservation *ex Nihilo*

As I stressed in the last chapter, Quinn's *ex nihilo* model of conservation makes only a minimal distinction between creation and conservation. The acts are intrinsically indistinguishable and the only difference concerns whether the individual that is created/conserved existed at previous moments. As Craig puts it, the only thing that distinguishes the conservation_{xn} of *x* from the creation of *x* is "the adventitious fact of *x*'s prior existence."¹ Contra Quinn and the continuous creation tradition, Craig insists that the intuitive distinction lies much deeper, in the "terminus" of the act. In creation, God brings about the existence of something completely new, whereas in conservation, God acts *upon* a previously existing entity.

Craig prefers to conceive of causation as a relation between two substances, an agent and a patient. This allows him to emphasize what he takes to be the crucial distinction:

In creation there is no patient entity on which the agent acts to bring about its effect. It follows that creation is not a type of change, since there is no enduring subject that persists from one state to another. It is precisely for this reason that conservation cannot be properly thought of as essentially the same as creation. For conservation does presuppose a subject which is made to continue from one state to another. In creation God does not act on a subject, but constitutes the subject by His action; in contrast, in conservation God acts on an existent subject to perpetuate its existence.²

In other words, conservation fits the typical agent causation schema in which an agent substance acts upon a patient substance to bring about some change in it. In creation, on the other hand, there is nothing to act upon; creation is the unique causal activity of

¹ Craig (1998a) p. 182. A nearly identical presentation of Craig's arguments can be found in chapter four of Craig & Copan (2004).

² Craig (1998a) p. 183.

bringing new patient entities into existence. This, Craig argues, is the intuitive distinction between creation and conservation, and it serves as the basis for his own analysis of the concepts.

Before we examine Craig's theory, it is worthwhile to pause and consider the force of his appeal to intuition. On the face of it, Craig's charge that conservation_{xn} conflicts with the "intuitive" distinction between creation and conservation rings somewhat hollow. After all, in Chapter One I cited the likes of Aquinas, Suarez, Descartes, Malebranche, Berkeley, Leibniz, and Jonathan Edwards, all agreeing that there is no substantive distinction to be made between these acts. In contrast, Craig cites only one historically significant theist – John Duns Scotus – in support of his allegedly "intuitive" view. Indeed, it gets worse, for in spite of Craig's attempt to paint him as an ally, a brief look at what Scotus actually says will reveal that he too belongs on conservation_{xn}'s list of esteemed supporters.

Craig cites a passage in which Scotus writes,

Properly speaking . . . it is only true to say that a creature is created at the first moment [of its existence] and only after that moment is it conserved, for only then does its being have this order to itself as something that was, as it were, there before. Because of these different conceptual relationships implied by "create" and "conserve," it follows that one does not apply to a thing when the other does.³

We have seen this passage before; ironically, it is the very passage Quinn cited in support of his definitions (Cr) and (Co). That is, Quinn takes the passage to suggest simply that the concept of conservation implies that an object is conserved only if it has existed previously. Indeed, it is hard to read much more than that into the passage; it is certainly

³ Duns Scotus (1306) p. 276.

difficult to find in it any suggestion of Craig's view that conservation involves God's acting upon a patient. Even more so in light of the following passage from Scotus, which occurs, incidentally, just a few pages prior to the previous passage.

. . . there seems no need to admit that the fundamental reason for the creature's relationship to God as creating and conserving is that it is being acted upon or affected. For properly speaking, the capacity of being acted upon [*passio*] occurs only when the patient receives some form from the agent . . . Therefore the passive potency is the principle of being changed or transmuted by another. Such a change only occurs when a patient receives something from an agent. *But in conservation and creation this does not occur, but the whole is created and the whole conserved completely by the creator and the conserver, and it is not just a part of it as is the case when a patient receives a form from the agent.*⁴

Here we find Scotus rejecting, in no uncertain terms, the agent-patient model of conservation Craig tries to saddle him with. He explicitly denies conservation involves *acting upon* patients, and affirms instead a view that sounds rather like creation and conservation *ex nihilo*.

Since tradition is aligned rather decidedly with Quinn's minimalist distinction between creation and conservation, we may justly wonder whose intuitions Craig is appealing to in criticizing this account. At one point, Craig suggests that his appeal is to more general "pre-philosophical intuitions,"⁵ in which case he may consider citations of philosophical authorities to be less pertinent. However, the consistency of their testimony is hard to ignore, and it tends to undermine any appeal to mere pre-philosophical intuitions. The problem is not only that pre-philosophical intuition is often an untrustworthy guide to metaphysics. (That is surely a problem, but it is one that afflicts

⁴ Duns Scotus (1306) p. 274, emphasis added.

⁵ Craig (1998a) p. 181.

everyone; we have little choice but to begin with our intuitions and then submit them to analysis, refinement, and when necessary, rejection.) The real problem is that among that select group of persons who have moved beyond pre-philosophical intuitions and thought carefully about the matter, there is a strong consensus that there is no deep distinction between creation and conservation. This fact suggests that something is wrong with the intuition Craig appeals to. Perhaps it is not as widespread as he suggests or, perhaps it is widespread, but simply has not withstood careful analysis. I will not attempt to determine how widespread it is, but in the remainder of the chapter I will attempt to show that the account of conservation Craig bases on this intuition does not fare well under careful analysis.

II. The Agent-Patient Model of Conservation

As one might expect given his criticism of conservation_{xn}, Craig proposes to analyze conservation in terms of an agent (God) acting upon patients. Thus I refer to his theory as the agent-patient model of conservation, or conservation_{ap} for short. He summarizes his theory of creation and conservation as follows⁶:

- E1. e comes into being at t iff (i) e exists at t , (ii) t is the first time at which e exists, and (iii) e 's existing at t is a tensed fact
- E2. God creates e at t iff God brings it about that e comes into being at t
- E3. God conserves e iff God acts upon e to bring about e 's existing from t until some $t' > t$ through every subinterval of the interval $t \rightarrow t'$

⁶ Craig (1998a) pp. 183, 187; cf. Craig (1998b) p. 138; and Craig and Copan (2004) pp. 158, 163. I have made some minor changes to render E3 consistent with the notation used throughout this chapter.

Unfortunately, apart from clause (iii) of E1, Craig offers very little discussion or explanation of the details of his account. Since he intends to offer an allegedly superior analysis of divine conservation, one would particularly expect Craig to pay careful attention to the details of E3, which is rather vague as it stands. As our attempts to clarify it will reveal, E3 is quite problematic.

E3 stipulates that in order to conserve *e* God acts upon *e* (i.e. upon an existing patient) to bring about its persistence through some temporal interval. However, William Vallicella has called attention to the fact that E3 fails to specify *when* God acts upon *e* to bring about this effect.⁷ The question is not whether the act occurs timelessly or within time, for Craig conceives of God as existing within time. Rather, what is at issue is when God acts upon *e* within time. Of course, there is a sense in which it may seem to be misguided to ask for a specific time at which God's act takes place. Conservation, it may be argued, is a continuous act of causing an object to continue to exist. Thus, God acts upon *e* throughout its existence; the act of conservation occurs over a temporal interval no less than its effect. What then is the point of asking *when* God acts upon *e* to bring about its continued existence?

In fact, I believe that the question of when God acts upon *e* is important and that E3's silence on the matter hides difficulties. In order to understand the force of the question, it may help to relativize it to moments. Suppose that *e* endures throughout the interval $t \rightarrow t'$ and consider some moment t'' such that $t < t'' < t'$. Relative to t'' , the question is: when does God act upon *e* to bring about its existing at t'' ? To reply that God's act of conservation occurs continuously throughout the interval of *e*'s existence simply will not

⁷ Vallicella (2002) p. 191.

do. It surely is not the entire temporal span of that act which is responsible for e 's existing at t'' . For one thing, the sub-interval of God's conserving that occurs after t'' clearly is not responsible for bringing about e 's existing at t'' . So we can immediately limit the possibilities to t'' and times earlier than t'' . God's act of conserving e at t'' must be either simultaneous with its effect or prior to it. However, Vallicella points out that, for rather obvious reasons, we can also rule out the possibility that conservation is simultaneous with its effect.⁸ On Craig's account, conservation requires a patient to act upon; thus, in order for God to act upon e at t'' , e would need to exist at t'' , and hence would have no need of being conserved at that moment. So agent-patient conservation cannot possibly be synchronic.

Thus, Craig is forced to the position that conservation is diachronic. In order to conserve e at t'' God must act upon e at some moment, or during some duration, prior to t'' – the act of conservation must always precede its effect. The intuitive picture of conservation that emerges is one of God's somehow pushing or propelling existing entities into the future, or perhaps of implanting in them a sort of existential inertia to carry them to next moment.⁹ On the face of it, this diachronic understanding of E3 seems to fit nicely with Craig's agent-patient approach to conservation. Since the act of conservation always occurs prior to its effect, there is an existing patient entity for God to act upon, and the effect of that action is that e is propelled into the future. However, in the following section we will find that there are deep problems lurking beneath the

⁸ Vallicella (2002) p. 190.

⁹ I borrow the term 'existential inertia' from Vallicella (2002) p. 190.

surface of this account. I will first defend Craig's account against an objection raised by William Vallicella, but then I will raise several more potent objections of my own.

III. Objections to Agent-Patient Conservation

III-A. Vallicella's Objection: God cannot begin Conserving

William Vallicella has argued that the diachronic reading of E3 makes it impossible for God to *begin* conserving anything. He writes,

If God creates x at t *ex nihilo*, then precisely at t there is no patient entity; how then does God bring it about that x lasts from t to any time later than t ? The problem is that there is nothing for God to act upon at t . Thus we trade in the old dilemma for a new one. In His capacity as conserver, either God acts upon x at t , or He acts upon x at a time later than t . The first alternative is impossible because conservation, on Craig's view, requires a patient entity. So God acts upon x at a time later than t . But x – that very individual – cannot exist at times later than t unless x has been continuously conserved from the instant of creation. This conservation from the instant of creation, however, is impossible to understand given Craig's demand that conservation be an action upon a pre-existent individual.¹⁰

What is puzzling about Vallicella's criticism is why he insists that x does not exist at t . If he were correct on that point, then the objection would be successful, but there is little to be said in favor of the point. Vallicella claims, "If t is the moment of creation, then at t there is no e for God to act upon; (e is coming into existence at t , and so does not yet exist at t)."¹¹ In other words, Vallicella wants to insist that the moment of an object's *coming into existence* and the first moment of its *existence* are distinct. However, a cursory look back at E1 and E2 reveals that this is simply a misunderstanding of Craig's account. As

¹⁰ Vallicella (2002) pp. 190-1.

¹¹ Vallicella (2002) p. 191.

Craig defines creation, to create something at t is to bring it about that it comes into being at t , and E1 stipulates that anything that comes into being at t exists at t . So while Vallicella's criticism depends upon the assumption that the moment of e 's *coming into existence* is distinct from the first moment of e 's *existence*, Craig treats these moments as identical.¹²

In fact, Vallicella's attempt to separate these moments not only misinterprets Craig's account of creation and conservation, but also seems to be conceptually confused. As I argued in Chapter Two, non-existent entities cannot undergo processes, so there is really no alternative to understanding creation *ex nihilo* as instantaneous.¹³ Craig's analysis rightly implies that if God creates e at t , then e exists at t , and hence e could serve as the subject or patient of an act precisely at t . In other words, it is perfectly consistent with Craig's analysis of creation and conservation to suppose that the moment of e 's creation (i.e. the moment of its *coming into being*) is identical to the first moment of God's acting upon e to begin conserving it. At the very same moment God might both cause e to exist for the first time and begin acting upon e , propelling it into the future. Thus, Craig's analysis of creation and conservation escapes Vallicella's objection unscathed.

¹² In the paragraph immediately preceding this criticism of Craig, Vallicella (2002) explicitly notes that "the act of creation" in Craig's account "is simultaneous with its effect" (p. 190). Since the effect of an act of creation is the existence of that which is created, it is indeed quite puzzling why Vallicella then denies that the created object exists at the moment of its creation.

¹³ Similarly, Kvanvig and McCann (1988) argue that no distinction can be drawn between the world's "coming to be" and its "being" (p. 19). Cf. McCann (1999) p. 307.

III-B. E3 and Discontinuous Conservation

Although Craig's diachronic agent-patient approach to conservation does not make it impossible for God to *begin* conserving *e*, I shall argue that it does make it impossible for God to conserve *e continuously*. According to Craig, "[a] crucial insight into conservation is that unlike creation, it does involve transition and therefore cannot occur at an instant."¹⁴ A conserved entity persists over some temporal interval because God acts upon it continuously throughout that interval. Thus, there are fundamental temporal disanalogies between creation and conservation. Creation can be synchronic, but as we have already seen, agent-patient conservation must be diachronic. And creation is an instantaneous act that brings about an instantaneous effect, while conservation is a continuous temporally extended act that brings about a continuous temporally extended effect. These disanalogies seem innocuous enough at first blush, but I will argue below that the attempt to marry such disanalogous actions is really quite problematic.

III-B-1. Setting the Stage

If God creates some entity *e* at *t*, the effect of that act of creation is simply *e*'s existing at *t*. If *e* is to persist beyond *t*, it can only be because God acts upon *e* precisely at *t* to conserve it. God's initial act of conservation cannot occur at any moment (or over any interval including moments) earlier than *t* because *e* does not yet exist and hence cannot be acted upon. Neither can it occur at any moment (or over any duration including moments) subsequent to *t*. After all, *e*'s existence *after t* is the very thing that divine conservation is supposed to explain; to explain it in terms of God's acting *upon e* at times subsequent to *t* would presuppose what was to be explained. By process of elimination,

¹⁴ Craig (1998a) p. 187.

we are left with but a single possible instant at which God can begin conserving e , and so it seems that, contrary to Craig's intentions, the initial act of conservation must be instantaneous. But what effect is brought about by this instantaneous first act of conservation? The answer to that question will reveal that no continuous act of conservation can ever get started.

However, before I pursue that question further, I want to launch a preemptive strike against a potential attempt to cut my criticism off at the start. Perhaps Craig would object to my speaking of an "initial act" of conservation. All that really follows from what I have said, he might insist, is that God's act of conservation must *begin* at t ; but that is very different from saying that an instantaneous act must occur at t . However plausible it may sound, this attempt to forestall my objection will not do. For even if Craig wishes to insist that God's conserving an entity throughout the entire interval of its existence is in some sense a single action, it seems that he will be forced to allow the action to be divided into smaller parts. As we saw earlier, if we ask what brings it about that e exists at some moment t'' , such that $t < t'' < t'$, Craig cannot respond that e 's existence at t'' is brought about by God's acting upon e from t to t' . Since the agent-patient approach demands that divine conservation must precede its effect, Craig is forced to admit that e 's existence at t'' is brought about by God's acting upon e at some moment or interval prior to t'' . Thus, even if there is some sense in which God's conserving e from $t \rightarrow t'$ is a single action and e 's existing from $t \rightarrow t'$ is a single effect, this cannot be understood in a way that prohibits the action and the effect from being divided into smaller parts. Moreover, certain parts of the action will be responsible for bringing about certain parts of the effect and not others – for example, parts of the action that

occur after t'' will not be responsible for e 's existing at t'' or any time prior to t'' . Thus, regardless of whether we refer to it as God's *initial act* of conservation or as the *initial part of* God's act of conservation, we can appropriately ask what effect is brought about by God's acting upon e at t . And as I said above, the answer to that question will reveal that no continuous act of conservation can ever get started.

There are only two general sorts of answer that might be given: the answer must be either that God's acting upon e at t brings about e 's existing at some moment later than t , or that it brings about e 's existing through some interval subsequent to t . I will demonstrate below that either sort of answer leads to a problematically discontinuous conception of conservation.¹⁵

III-B-2. The Momentary Effect Interpretation

Let us begin with the former sort of answer. If the effect of God's acting upon e at t is e 's existing at some subsequent moment, the natural thing to want to say is that God's act at t brings about e 's existing at the very next moment after t . But assuming that time is continuous, the problem is that there is no unique next moment following t , and thus it is impossible for the effect of God's act to be e 's existing at the very next moment.¹⁶ Thus, if the effect of God's acting upon e at t is e 's existing at some subsequent moment t'' , then no matter how near t'' is to t , they will nonetheless be separated by some finite interval during which e fails to exist. Moreover, the same pattern will repeat itself

¹⁵ Aspects of the argument presented below are modeled upon aspects of the arguments for the impossibility of self-sustenance and for the impossibility of a diachronic causal nexus found in Kvanvig and McCann (1988) and McCann and Kvanvig (1991).

¹⁶ Strictly speaking, the objection I am raising requires only the weaker assumption that time is dense. For a discussion of discrete, dense, and continuous conceptions of time see Newton-Smith (1980) ch. VI.

indefinitely. God can only act upon *e* at times when it exists, so it cannot be acted upon again until *t''*, and the effect of that act will occur at some moment which is separated from *t''* by a temporal interval. So if we take the effect of God's acting upon *e* at *t* to be instantaneous, we get the absurd result that *e* exists at a series of instants separated from each other by intervals during which *e* pops out of existence. Although some may be willing to entertain the possibility that an entity *might possibly* cease to exist and then begin existing again at a later time,¹⁷ no one, I think, would be willing to tolerate a conception of conservation that entails that *every* created entity is *of necessity* constantly popping out of existence only to reappear at isolated instants before vanishing again. That is simply too much to stomach.

Of course, Craig could avoid this problem if he were willing to adopt a discontinuous, discrete view of time according to which each moment is followed by a unique next moment with no temporal interval between them. In that case, if God creates *e* at *t*, God can also act upon *e* at *t* to conserve it at the very next moment, and at that next moment God can act upon it again to conserve it at the next, and so on. However, adopting a discrete view of time comes at a cost, for it entails a similarly discontinuous, discrete account of motion and other changes. That is, if time is discrete, then an object in motion must "jump" discontinuously from one location at one moment to another location at the next moment. The result is a sort of film strip picture of reality, where each moment is analogous to a single frame of the film; the appearance of continuity in

¹⁷ Quinn, for example, is open to the possibility that this is how we should understand the Christian doctrine of the resurrection. See Quinn (1983) pp. 76-7. However, it is not a possibility that Craig is willing to consider; indeed, he criticizes Quinn's account for being compatible with such gaps in existence. See Craig (1998a) p. 184-5

time and change is, like the appearance of continuity in a film, an illusion produced by the fact that the jumpy changes occur too quickly for us to detect. Such a picture of time does have certain benefits – for example, it offers easy resolutions to some of Zeno’s paradoxes because it denies that time is infinitely divisible. But most have judged its disadvantages to far outweigh its advantages.¹⁸ Moreover, it seems rather doubtful that Craig would accept this solution to the difficulties in his account of conservation, as he has elsewhere described the implications of discrete time as “disturbing” and “bizarre.”¹⁹

Thus, we have found that the momentary effect interpretation leads inevitably to the consequence that conservation is in some sense *discontinuous*. Taking time to be discrete has the predictable consequence that both the act of conservation and its effects inherit the sort of jumpy, discontinuous unfolding inherent in such an approach to time. But less predictably, we have found that continuous time renders conservation discontinuous in a far more radical sense – both the acts of conservation and their effects occur only at disjoint instants separated by intervals of non-occurrence and non-existence. Thus, taking the effect of God’s initial act of conservation to be *e*’s existence at a later *moment* has proven to be a dead end.

III-B-3. The Interval Effect Interpretation

It is time, then, to consider the alternative possibility that the effect of God’s initial act of conservation at *t* is *e*’s existing over some subsequent temporal interval. In

¹⁸ Le Poidevin (2003) pp. 119-21 discusses very briefly, but also very accessibly, some of the strange consequences of taking space and time to be discrete. For more detailed discussions of discrete versus dense and continuous conceptions of time, see Lucas (1973) ch. I.6; Lucas (1984) ch. V; and Newton-Smith (1980) ch. VI. Lucas and Newton-Smith both reject discrete time in favor of either dense or continuous time.

¹⁹ Craig (2001) pp. 158-59.

order to do so, it will be helpful to draw some distinctions between several different types of intervals. Thus far, whenever I have referred to an interval, say $t \rightarrow t'$, I have intended that it be understood intuitively as including t , t' , and every moment in between. I will refer to such intervals as *II-intervals* because they are *internally* bounded at both their beginning and their end. Although this is the most natural way to think of intervals, there are obviously other possibilities. I will refer to intervals *externally* bounded at both ends as *EE-intervals*; if $t \rightarrow t'$ is an *EE-interval* it will include every moment between t and t' , but not t and t' themselves. *EE-intervals* are unique in that, although finite in duration, they have neither a first nor a last moment.²⁰ Finally, there are the hybrid varieties of *IE-intervals* and *EI-intervals*. If $t \rightarrow t'$ is an *IE-interval*, it will include t and every moment between t and t' , but will not include t' ; thus *IE-intervals* have a first moment, but no last moment. And if $t \rightarrow t'$ is an *EI-interval*, it will include t' and every moment between t and t' , but will not include t ; thus *EI-intervals* have a last moment, but no first moment.

The first thing to note about the interval interpretation of agent-patient conservation is that the effect of God's acting upon e at t cannot be e 's existing through an interval that is internally bounded at the beginning – that is, we can rule out *II-intervals* and *IE-intervals*. Here is why. We have already seen that conservation_{ap} must be diachronic – e 's existing at t cannot be part of the effect of God's acting upon e at t . So if the interval were internally bounded at the beginning, its first moment would need to be

²⁰ I am assuming here that time is continuous. There is no point in distinguishing between internally and externally bounded intervals on a discrete view of time, because if time were discrete, either type could be defined in terms of the other. For example, if time were discrete and $t \rightarrow t'$ were an *II-interval*, it would be identical to *EE-interval*, $t-1 \rightarrow t'+1$; likewise, if $t \rightarrow t'$ were an *EE-interval*, it would be identical to *II-interval*, $t+1 \rightarrow t'-1$. Discrete time does away with topologically open boundaries – every interval has a first and a last moment regardless of whether it is internally or externally bounded.

some time t'' , such that $t < t''$; the problem this poses is that no matter how close t and t'' are, if time is continuous (as we are supposing) they will be separated by a temporal interval. Thus, any time God created an individual, it would exist for a single moment, then cease to exist for some interval, after which it would begin existing again. Once again, conservation_{ap} results in an unacceptably discontinuous conception of both the act of conservation and of its effect.

The only way to avoid this gap between the first and second moments of a created entity's existence while also honoring the requirement of diachronicity is to take the effect of God's acting upon e at t to occur over an interval that is externally bounded at its beginning by t . Either an *EE-interval* or an *EI-interval* would solve this gap problem, resulting in a smooth transition from the effect of the act of creation to the effect of the act of conservation. Nevertheless, although this approach removes any ugly discontinuities on the side of the effect, discontinuities on the side of the divine action prove more difficult to eliminate. Recall that we are supposing that e exists through the interval $t \rightarrow t'$ and that t'' is an instant falling somewhere within that interval. Let us further suppose that the effect of God's acting upon e at t is e 's existing through the interval $t \rightarrow t''$. It will make things simpler if we can suppose that the interval has a final moment, so let us assume for now that $t \rightarrow t''$ is an *EI-interval*. The reason this way of conceiving things renders God's action discontinuous is simply that there is no need for God to act continuously on e throughout the interval $t \rightarrow t''$ because, by hypothesis, God's initial momentary act of conservation at t is sufficient to bring about e 's continued existence throughout the entire interval. Thus, there is no need for God to act upon e again until t'' , at which point e must be conserved again if it is to continue to exist beyond that moment.

But at this point, the original problem arises again. What will be the effect of God's acting upon e at t'' ? It cannot be e 's existence at the next moment, since there is no next moment. It must be e 's existence over some temporal interval externally bounded at its beginning by t'' . And of course, since God's acting upon e at t'' would be sufficient for its continued existence throughout that interval, God need not act upon e again until the end of that interval. Obviously, this pattern will repeat itself indefinitely. But this is a rather counterintuitive and ad hoc way to conceive of conservation. Although it has the advantage of removing any gaps or discontinuities on the side of e 's existence (i.e. on the side of the effect), the divine act remains radically discontinuous.

Furthermore, we should note that taking $t \rightarrow t''$ to be an *EE-interval* rather than an *EI-interval* would only worsen the situation. If the interval is externally bounded at its end, it has no last moment, and thus it is not possible for God to wait until the final moment to act upon e again. Nevertheless, it remains true that there is no need for God to act upon e continuously throughout the entire interval, since God's act upon e at t is sufficient to conserve it through that interval. The result is that God *must* act upon e again at *some* time prior to t'' , but there is no need for God to act upon e at any particular moment, since for any such moment, God could wait until a later moment. So taking the effect of God's initial act of conservation to be e 's existing through an *EE-interval* simply adds to the ad hoc nature of the overall picture.

Thus far, I have contended that taking the effect of God's initial act of conservation at t to be e 's existence over a temporal interval results in a discontinuous conception of the divine action – God does not act upon e continuously, but rather at disjoint instants. This result is clearly contrary to Craig's intention, and it is probably

sufficient grounds by itself for dismissing the interval interpretation. But there is one further problem with this interpretation that is worth noting before we move on. The problem is simply that the interval interpretation undermines the need for any further divine action subsequent to t . We assumed above that God's acting upon e at t brings about e 's existence through the interval $t \rightarrow t''$, which is a sub-interval of e 's existence through $t \rightarrow t'$. But once it has been granted that God's acting upon e at t can bring about e 's existence over some interval, there can be no non-arbitrary reason to restrict the length of that interval. If an instantaneous act of divine conservation can bring about e 's continued existence over a brief interval, say some very small fraction of a second, there would seem to be no reason to deny that an instantaneous act of conservation could bring about e 's existence over a slightly longer interval. If a fraction of a second, why not a second? But then, if a second, why not a minute, or an hour, and so on? Indeed, why not suppose that it brings about the entirety of e 's existence? I, for one, can see no principled justification for restricting the length of the interval, and so I conclude that the interval interpretation threatens to reduce conservation_{ap} to a single momentary action performed at the moment of an individual's creation.

III-B-4. Summing up the Argument

I claimed at the beginning of this section that Craig's diachronic agent-patient approach to conservation has the unintended consequence that it is impossible for God to conserve an entity continuously. After examining all the alternatives, we have made good on that claim; however, the argument has involved a fair amount of detail, so it may be helpful to briefly summarize its central points. First, we observed that the initial act of conservation must occur at the instant of creation, and that the effect of that act must

occur either at a subsequent moment or over a subsequent interval. We found that if it occurs at a subsequent moment, then conservation and its effects are discontinuous in one of two senses. If time is continuous, then conservation and its effects are discontinuous in the radical sense that conserved entities exist and are acted upon only at disjoint moments separated by intervals of non-existence during which there is nothing for God to act upon. The only way to avoid this result on the momentary interpretation is to adopt a discrete conception of time. But in that case, creation and conservation are discontinuous in the sense that they unfold in the jumpy, discontinuous fashion entailed by discrete time. For this and other reasons, discrete time has few proponents and Craig certainly is not one of them. Turning to the alternative possibility that the effect of the initial act of conservation occurs over an interval, we found that the interval must be externally bounded at its beginning, for if it were internally bounded at the beginning, every created entity would cease to exist immediately following its creation only to reappear after some interval of non-existence. Taking the interval to be externally bounded at its beginning can solve this problem and remove any discontinuity on the side of the existence of the conserved entity. However, the divine act of conservation remains discontinuous, occurring either at disjoint moments throughout the conserved entity's existence, or all at once at the moment of its creation. E3's failure to specify when God acts upon *e* to conserve it conceals all of these problems, but once they have been brought to light it becomes clear that an instantaneous act of creation simply cannot be followed by a continuous act of diachronic conservation_{ap}.

I conclude, then, that the agent-patient approach to conservation simply cannot satisfy all of the criteria Craig wants it to. However, although each of the possible

interpretations of conservation_{ap} discussed above fails in some way or other, their failures are not all equally damning. For example, interpretations that entail that conserved entities pop out of and back into existence are worse off than those interpretations that do not have such entailments. More generally, I think those interpretations that entail that the *effects* of divine conservation are discontinuous are worse off than those that entail that the divine *act* is discontinuous. In particular, I think it is worth noting that the final interpretation of conservation_{ap} discussed above bears a certain resemblance to one of the interpretations of conservation_{xn} mentioned earlier. I argued earlier that Quinn's *ex nihilo* account is open to some interpretation concerning the temporal content of the divine volitions. One interpretation I suggested is that in order to create and conserve an individual from t to t' , God simply wills that that individual exist throughout $t \rightarrow t'$. This single volition version of conservation_{xn} is not entirely unlike the version of conservation_{ap} which holds that God performs a single momentary act of conservation upon an individual at the moment of that individual's creation, with the effect of that action unfolding throughout the remainder of the individual's existence.

The similarity between them invites the following question: if we were to choose between these two "all at once" interpretations of conservation, is there any reason to prefer one over the other? One consideration is simply that the agent-patient version requires two divine actions – one of creation (i.e., the brute willing into existence of a patient entity) and a simultaneous act of conservation performed *upon* the created entity – while the *ex nihilo* version requires a single divine action of willing that the entity exist throughout the entire interval. So at the very least, an Ockham's razor-type principle – do not multiply actions (or *kinds* of actions) beyond what is necessary to produce the effect –

seems to favor the *ex nihilo* version. Another consideration is that on Craig's agent-patient model of conservation, it is far from clear what God does to an individual to conserve it. Up to this point I have made due with rather woolly characterizations of conservation_{ap} such as God "propels individuals into the future" or "implants in individuals a sort of existential inertia." But it is far from clear how we are to parse such metaphors, and I will argue in the following section that the prospects for a more precise characterization of the action look rather grim. If the argument below is successful, then we will have a decisive reason to prefer the *ex nihilo* approach to conservation over *any* interpretation of the agent-patient approach.

III-C. E3 and the Nature of Conservation_{ap}

Just as E3's failure to specify *when* God acts upon individuals hid difficulties, so, I shall argue, does its failure to specify *how* God acts upon them. For upon closer examination, the question of what God does to an individual to cause it to persist proves troublesome. I argued earlier in the chapter that there is little that can be said in response to the question of *how* God creates *ex nihilo* because it must be understood as a basic action, or something very near to basic – God simply wills that things exist, and that is all there is to it. If that is right, then the *ex nihilo* model of conservation can set aside the question of *how* God conserves individuals, for it claims that in creation and conservation God does the very same thing. However, Craig cannot plausibly make the same appeal for his agent-patient account of conservation because it seems to involve a rather different sort of divine action.

Craig seems not to recognize this, for he repeatedly denies that the difference between creation and conservation lies in the nature of the act itself. According to Craig,

“those who differentiate creation and conservation need not, *pace* Quinn, find the intrinsic difference between them in the divine power and action, but may see it rather in the terminus of that action.”²¹ Similarly, he contends that “[t]he act itself (the causing of existence) may be the same in both cases, but in one case may be instantaneous and presupposes no prior object, whereas in the other case occurs over an interval and does involve a prior object.”²² But this cannot be correct; surely these acts cannot differ *only* in their terminus. How can the instantaneous act of willing a new entity into existence be intrinsically indistinguishable from that of acting *upon* that entity at one moment (or duration) to bring about its existence at a later moment (or duration)? These seem to be fundamentally different kinds of acts, and Craig offers no reason for thinking they are the same. Acting *upon* (doing something *to*) a patient entity to bring about its existence at a later time does not seem to be a basic and primitive causal notion. If God conserves things by somehow acting *upon* them, then it seems perfectly natural and appropriate to ask what God *does* to them. What does God do to *e* that causes it to exist at a later time?

Apart from some answer to that question, Craig’s analysis of conservation remains utterly mysterious. But is there a plausible way to fill this lacuna in his account? Metaphors such as “propelling objects into the future” or “implanting existential inertia in them” are fine for the getting an intuitive grasp of the picture, but they are ultimately too non-specific and impressionistic to pass philosophical muster.

²¹ Craig (1998a) p. 183.

²² Craig (1998a) p. 187.

Perhaps we would do better to pursue Craig's suggestion that conservation involves some sort of change in the conserved object.²³ Unfortunately, he does not elaborate on what sort of change he has in mind. Could the conserved object's continued existence be the change he is referring to? That seems improbable for at least two reasons. First, it is not altogether clear that the continued existence of something qualifies as a change. If *e* exists now and continues to exist until a later moment, then what exactly has changed? With respect to *e*'s existence, nothing seems to have changed (*e*'s ceasing to exist at the later moment seems better qualified to count as a change).²⁴ But secondly, even if *e*'s existence until a later moment does count as a sort of change, noting that fact would do nothing to remove the mystery in Craig's account. In order to bring about that change at a later moment, God must do something to an individual now. The question remains: what does God do to it?

A slightly more promising suggestion is that in acting upon *e*, God causes it to possess some sort of feature – a property, disposition, power, or something of the sort – that results in its continued existence. The proposal, then, would be that God brings about *e*'s continued existence indirectly by directly causing *e* to possess what Kvanvig and McCann (1988) refer to as a *self-sustaining feature* (SS). On this suggestion, divine

²³ This seems to be implied by what he says in Craig (1998a) p. 183.

²⁴ Compare Lombard (1986, p. 84):

I take it to be obvious that no object changes merely in virtue of its being the case that it persists. Persisting is a paradigmatic case of not changing. . . [I]t might be suggested that nothing changes unless it persists; but persistence itself is not a change.

Rundle (2004, p. 91) makes essentially the same point.

conservation and its direct effect (i.e. *e*'s possession of an SS) can be conceived synchronically. Thus, it promises an answer to the question of *when* God acts upon *e* that apparently avoids the difficulties of diachronic conservation.

However, the appearance of an improvement here is illusory. In the first place, although God's act of implanting an SS in *e* may be synchronic, the SS must produce its own effects in *e* diachronically. That is, *e* must exist at *t* if God is to implant an SS in *e* at *t*, and so any effect attributable to *e*'s possession of the SS must be *e*'s existence at some moment or through some duration subsequent to *t*. All of the temporal problems of diachronic conservation discussed above will simply reappear in a slightly new guise.²⁵ So despite initial appearances, there is no escaping the problems raised by the diachronic nature of the agent-patient approach.

Furthermore, explaining conservation in terms of God's implanting SS's in individuals undermines the very notion of divine conservation. For if individuals persist due to the operation of SS's, God could simply create individuals with SS's in the first place and leave them be. There is no apparent need for continued divine involvement. Of course, a theory of that sort can no longer be described as a theory of divine conservation; rather, it is a theory according to which God creates individuals that have no need of conservation. Regardless of whether such an account is philosophically tenable, it has clearly fallen off the map of theological orthodoxy and onto that of deism.

Thus, we are still without an adequate answer to the question of *how* God acts upon individuals in order to cause them to persist. The answers we have considered have

²⁵ For a discussion of various problems raised by the attempt to explain persistence through appeal to self-sustaining features see Kvanvig & McCann (1988) pp. 37-48.

all been problematic, and I am not aware of any plausible alternatives. Obviously, that does not establish with any certainty that there is no plausible answer to the question, but it does cast further doubt upon agent-patient conservation by adding to its already significant list of problems.

IV. Conclusion

Quinn's *ex nihilo* model of conservation follows the continuous creation tradition in denying that there is any substantive distinction between creation and conservation. In this chapter I have defended this tradition by responding to William Craig's charge that it fundamentally misconstrues the intuitive distinction between creation and conservation. According to Craig, conservation should be understood in terms of God's acting *upon* a patient entity to cause it to continue existing. However, we have found this agent-patient model of conservation to be fraught with difficulties, so much so that I think we can safely conclude that it poses no real threat to the traditional *ex nihilo* model.

Throughout the remaining chapters I will focus exclusively upon the continuous creation tradition and its *ex nihilo* version of conservation. Thus, I will forgo the subscripts and modifiers: when I refer to conservation without any qualification, I mean conservation *ex nihilo* as defined by (Co), and when I speak of continuous creation I mean the theory stated in (CC), (Cr), and (Co). Unlike the agent-patient model, continuous creation seems to offer an internally consistent account of creation and conservation. However, it remains to be seen whether continuous creation can withstand other common criticisms. In Part II (Chapters Four and Five), we will consider the objection that continuous creation is incompatible with persistence, and in Part III

(Chapters Six through Eight) we will consider the objection that it is incompatible with secondary causation.

PART II

Continuous Creation and Persistence

If the existence of created substance, in each successive moment, be wholly the effect of God's immediate power, in that moment, without any dependence on prior existence, as much as the first creation out of nothing, then what exists at this moment, by this power, is a new effect; and simply and absolutely considered, not the same with any past existence . . .

- Jonathan Edwards (1758, p. 991)

[I]n a strict and philosophical manner of speech, no man, no being, no mode of being, no any-thing, can be the same with that, with which it hath indeed nothing the same.

- Joseph Butler (1798, p. 360)

CHAPTER FOUR

Continuous Creation and Temporal Parts

The doctrine of continuous creation is sometimes criticized on the grounds that it is incompatible with persistence. Indeed, some authors have taken the denial of persistence to be partly constitutive of the doctrine.¹ That is, they have taken continuous creation to be the view that moment-by-moment God is creating *new* things that *replace* those that existed previously. However, I think this is an unhelpful way to approach the issue. Historically, the vast majority of continuous creationists seem to have seen no conflict whatsoever between continuous creation and persistence. They do not claim that God continuously creates a succession of replacement worlds and world-inhabitants, but rather that God continuously creates *this* world and its inhabitants. Moreover, I suspect that many continuous creationists would have rejected (or at least reconsidered) the doctrine if they had thought it to be incompatible with persistence.

¹ For example, Crisp (2003) distinguishes between what he calls *strong conservation* and *continuous creation* as follows: “a strong conservation thesis preserves this notion of temporal persistence whereas a continuous creation thesis denies conservation, since nothing persists through time” (p. 64). Similarly, Richard Watson (1993, pp. 80-1) acknowledges that an interpretation of continuous creation compatible with persistence would be more charitable, but he suggests that the “more common” interpretation of the doctrine understands it to be incompatible with persistence. However, with the possible exception of Jonathan Edwards (whose views I will discuss later in the chapter), I am aware of no textual evidence to support this suggestion. Moreover, even Edwards does not argue that continuous creation is inconsistent with persistence *per se*, but only that it is inconsistent with what he takes to be a mistaken understanding of persistence.

In addition to being historically skewed, the suggestion that the denial of persistence is partly constitutive of continuous creation clearly does not apply to Quinn's theory of continuous creation. Recall that Quinn's theory consists of the following axiom and definitions:

- (CC) *Necessarily, for all x and t , if x is contingent and x exists at t , then God's willing that x exists at t brings about x 's existing at t .*
- (Cr) *God creates x at $t = \text{def.}$* God's willing that x exists at t brings about x 's existing at t , and there is no t' prior to t such that x exists at t' .
- (Co) *God conserves x at $t = \text{def.}$* God's willing that x exists at t brings about x 's existing at t , and there is some t' prior to t such that x exists at t' .

(CC), (Cr), and (Co) in no way deny persistence; indeed, as (Co) defines conservation, *only* persisting entities can be conserved.

Thus, a better way to approach the issue is to think of the denial of persistence as an alleged *implication* of continuous creation. The problem is not that continuous creation *explicitly* denies persistence. Rather, the problem is that there are (allegedly, at least) reasons to worry that accepting continuous creation *implicitly commits* one to denying persistence.² Put another way, the worry is that there is some hidden incompatibility between continuous creation and persistence, and thus, that consistency requires rejecting at least one of them.

² This way of approaching the problem is parallel to the standard way of approaching the more commonly discussed problem of freedom and foreknowledge. The doctrine of omniscience is traditionally understood as involving divine foreknowledge of all future free choices. There are well-known and hotly-debated arguments that purport to show that omniscience, so understood, implies the denial of libertarian free will. To my knowledge, no one who defends these arguments has ever suggested that the denial of libertarian freedom is *partly constitutive* of the traditional doctrine of omniscience. Instead, they argue simply that those who endorse that version of omniscience are *implicitly committed* to rejecting libertarian freedom.

If we find that continuous creation and persistence really are incompatible, I think that continuous creation is the one we would need to reject. That seems to be the right choice for at least two reasons. The first is simply that it is more evidently true that many things persist than it is that God continuously creates everything. Thus, if persistence and continuous creation really are incompatible, the rational thing to do would be to stick with the more evidently true – i.e. to stick with persistence. Perhaps some would challenge this first reason by an appeal to faith and tradition; that is, they might argue that even if the truth of continuous creation is less evident by the lights of reason alone, it should nonetheless be upheld because it is a time-honored tenet of their faith. However, any such appeal would be undermined by the second reason for choosing persistence over continuous creation: namely, that persistence is far more important to the major theistic religions. Continuous creation may be a popular and traditional doctrine, but it is not essential to these religions – they could get along well enough without it. However, the same cannot be said of persistence. Without persistence, doctrines and concepts essential to theistic religions would be rendered senseless. How could we make sense of immortality apart from persistence? What about guilt for past sins, or forgiveness and redemption? If persons do not persist, many such core doctrines and beliefs would turn out to be meaningless at best – more likely, they would be just plain false. Thus, if continuous creation is incompatible with persistence, theists would have to reject continuous creation.

But we are getting ahead of ourselves, for we do not yet know whether they are incompatible, and thus, we do not yet know whether we really must choose. In this chapter and the next, we will attempt to answer that question. The task is complicated by

the fact that philosophers disagree about the nature of persistence. Three different theories dominate the discussions – endurantism, worm theory, and stage theory. Section I of the chapter will provide a brief introduction to each of these theories. Then, in section II we will examine Jonathan Edwards’s views on continuous creation and persistence. Edwards argued that continuous creation entails an ontology of temporal parts – I refer to this as *Edwards’ Thesis*. If Edwards is right, then continuous creation is incompatible with endurantism, but would appear to be a natural fit with either worm or stage theory. Indeed, Edwards defended a view of persistence that is strikingly similar to those of contemporary worm and stage theorists. However, in the remainder of the chapter, I will argue that neither of these theories are legitimate options for continuous creationists. Any plausible version of worm theory will include necessary conditions for persistence that are incompatible with continuous creation, and stage theory must be rejected because it is an unacceptable theory of persistence. Thus, in this chapter I defend the following conditional conclusion: *if* Edwards’s thesis is correct, then continuous creation is incompatible with persistence. Whether continuous creationists can plausibly reject Edwards’s thesis and embrace endurantism will be the topic of Chapter Five.

I. Three Theories of Persistence

It will be helpful to begin by summarizing and comparing the three predominant approaches to persistence discussed in the contemporary literature. My purpose here is not to offer an exhaustive overview of these theories, but rather to briefly explain how each theory understands the nature of persistence. Thus, I will generally ignore the

arguments offered for and against the positions, except where such arguments are particularly helpful for the purpose of understanding a view.³

I-A. Endurantism.

Even most critics of *endurantism* will concede that it is our default, pre-philosophical, commonsense conception of persistence. According to *endurantism*, to say that an object persists is to say that it is “wholly present” at different times. *Endurantism* is sometimes referred to as *three-dimensionalism* because it conceives of persisting objects as three-dimensional continuants, entities that continue to exist in their entirety over a period of time. Perhaps the easiest way to understand the significance of these characterizations of *endurantism* is to contrast them with those of its principal competitor, *worm theory* or *four-dimensionalism*.

I-B. Worm Theory.

Four-dimensionalists conceive of the world as extended in both space and time – i.e. as a four-dimensional spacetime manifold. According to this metaphysical picture, if we could somehow step outside of the spacetime manifold and view persisting objects from an atemporal or omnitemporal “God’s eye” perspective, we would see them as “spacetime worms” spread out in all four dimensions of the manifold. Most four-dimensionalists consider these worms to be composed of infinitely many instantaneous temporal parts or stages, each of which is a three-dimensional slice of the worm across

³ For those interested in a more thorough and systematic exposition and assessment of each of these theories, Benovsky (2006) is an excellent (although certainly not impartial) entry point with ample references to the literature. Also, the collection by Haslanger & Kurtz (2006) includes many of the most important readings on each theory.

the temporal axis.⁴ According to worm theory, when we refer to persisting objects, we are really referring to four-dimensional spacetime worms.

Unlike enduring objects, worms are not “wholly present” at any particular moment: rather, they are “partly present” at every moment where⁵ they have a temporal part. They persist through time in much the same way that bodies are spread out in space. At this moment, someone could accurately describe my body as resting on both a chair and an ottoman. What this means, of course, is not that my body is resting entirely on a chair and entirely on an ottoman, but rather that part of my body is resting on a chair and another part on an ottoman. Likewise, argue worm theorists, persisting objects can be said to exist at different times by virtue of the fact that they have temporal parts that exist at those times. Objects have temporal parts in essentially the same way that they have spatial parts; the only difference concerns which dimension of the spacetime manifold the parts are spread throughout. By way of contrast, endurantists draw a sharp distinction between the spatial and temporal features of objects. When they affirm that persisting objects exist *wholly* at different times, they thereby deny that persisting objects have any

⁴ A clarification and a qualification are in order. First, I should clarify that not *all* temporal parts are instantaneous: only the smallest and most fundamental ones are. Any subset of an object’s instantaneous temporal parts (or at least any continuous, non-gappy subset of them), is itself a four-dimensional temporal part of the larger four-dimensional object. However, such four-dimensional temporal parts are themselves composed of more fundamental three-dimensional parts. Second, I should add the qualifier that while most friends of temporal parts agree that the smallest temporal parts are instantaneous, there are a few notable exceptions. For a discussion of this issue, see Zimmerman (1996) pp. 121-4; Zimmerman cites Bertrand Russell and C.D. Broad as influential temporal parts theorists who reject instantaneous parts.

⁵ “Where” is appropriate in this context because four-dimensionalists tend to spatialize time. That is, they place a heavy emphasis upon the similarities between space and time and typically write off most dissimilarities as purely phenomenal.

temporal parts.⁶ To mark the difference between the theories, worm theorists say that objects persist by *perduring* rather than by *enduring*.

I-C. Stage Theory.

A handful of philosophers, most notably Ted Sider and Katherine Hawley, have recently defended an alternative account of persistence known as *stage theory*.⁷ From an ontological point of view, stage theory and worm theory are indistinguishable: both affirm the existence of instantaneous three-dimensional temporal parts, or “stages,” and of four-dimensional spacetime worms composed of these parts. However, while worm theorists identify persisting objects – cars, books, bodies, and so on – with worms, stage theorists identify them, as one might guess, with stages.

On the face of it, identifying such things with stages seems to imply that none of them persist. Indeed, Sider’s claim that “all continuants are stages” seems flatly contradictory: since stages are instantaneous they *cannot* continue.⁸ However, Sider proposes that stage theory can meet this objection by adapting Lewis’s counterpart theoretic analysis of de re modal predication to temporal predication.⁹ As I will explain below, the problems and their proposed solutions are both quite similar.

⁶ D.H. Mellor (1998, p. 85) argues that what distinguishes events from objects is that events have temporal parts while objects do not; cf. Lombard (1986) pp. 69-70, 127-31. Trenton Merricks (1995), on the other hand, argues that enduring and perduring entities are incompatible – in other words, if objects endure, then it is impossible for events to perdure. See Lombard (1999) for a response to Merricks’ argument.

⁷ See Sider (1996) and (2001); and Hawley (2001). For a critical assessment of stage theory from the perspective of a worm theorist, see Benovsky (2006) ch. 7.

⁸ Sider (2001) p. 191.

⁹ First developed in Lewis (1968).

Let us begin with Lewis's account of modal predication. By *modal predications*, I mean assertions that individuals could have differed in some respects from the way they actually are; for example, "David Lewis could have been an unrepentant Platonist" asserts that David Lewis might have held different philosophical views from those he actually held. The standard analysis of modal predications assumes that the very same individual can exist in a variety of possible worlds, possessing different properties in various worlds. For example, on the standard analysis, my statement about Lewis is understood to be true if and only if there is some possible world in which Lewis exists and is an unrepentant Platonist. However, Lewis has to reject that analysis because he denies that individuals can exist in more than one world.¹⁰ In other words, he rejects the idea that there is such a thing as literal "transworld identity"; rather, he holds that any individual that exists in a world is a "world-bound" individual. But if individuals are world-bound, it looks as though every property they possess is essential to them. After all, if individuals are world-bound, they cannot even exist in other worlds, much less possess different properties in them. Lewis solves this problem by introducing the counterpart relation. Although individuals are world-bound, they nevertheless have *counterparts* that exist in other worlds. Simply put, an other-worldly counterpart of an individual is a distinct individual that exists in another world and that stands in some contextually relevant similarity relation to that individual. Lewis then analyzes modal

¹⁰ By "exists in" I mean "exists *wholly* in." As an unrestricted mereologist, Lewis accepts the existence of individuals such as the mereological sum of the Eiffel Tower and a planet that exists in a different possible world. However, while such individuals exist, they do not *exist in* any possible world, at least not as I am using "exists in." Of course, if we used "exists in" in a derivative sense such as "has a part that exists in," we would have to say that such individuals exist in two worlds. See Lewis (1986) pp. 211 ff.

predication in terms of counterparts rather than in terms of transworld identity: for example, the statement “Lewis could have been an unrepentant Platonist” is analyzed as being true if and only if some possible world contains a counterpart of Lewis that is an unrepentant Platonist.

Lewis’s counterpart theoretic analysis of modal predication for *world*-bound individuals translates rather straightforwardly to stage theory’s problem of analyzing temporal predication for “*moment*-bound” individuals or stages. While no two stages existing at different times are identical, they can nonetheless stand in similarity relations – in other words, they can be related as temporal counterparts. Sider proposes that

the truth condition of an utterance of ‘Ted was once a boy’ is this: there exists some person stage x prior to the time of utterance, such that x is a boy, and x bears the temporal counterpart relation to Ted. Since there is such a stage, the claim is true. Despite being a stage, Ted *was* a boy; he has the historical property of *once being a boy*.¹¹

Thus, according to stage theorists, persisting individuals are instantaneous stages; nevertheless, they persist as long as they have counterparts that exist at other times.

II. Edwards’s Thesis

Now that we have at least a basic understanding of these three accounts of persistence, we can turn to the question of their compatibility with the doctrine of continuous creation. Readers unfamiliar with Jonathan Edwards’s *The Great Christian Doctrine of Original Sin Defended* (hereafter, simply *Original Sin*) will undoubtedly think it a strange place to begin such an inquiry. But in the process of responding to criticisms of the doctrine of original sin, Edwards offers what is to my knowledge the

¹¹ Sider (2001) p. 193.

first explicit discussion of the relationship between continuous creation and persistence. Critics of the doctrine had charged that by imputing Adam's sin and guilt to his posterity original sin mistakenly (and unjustly) treats distinct persons as though they are one and the same. Edwards responded by attempting to show that the objection rests upon a mistaken understanding of identity and persistence.¹² The objection assumes that the reason it is just to punish me for a sin I committed yesterday is that the I-of-today is strictly identical with the I-of-yesterday and that the reason it is unjust to punish me for the sin of Adam is that I am entirely distinct from Adam. The truth of the matter, argues Edwards, is that there is no such thing as *strict* identity over time. All created things exist only for a moment: "what exists at this moment . . . is a *new effect*; and simply and absolutely considered, not the same with any past existence, though it be like it, and follows it according to a certain established method."¹³

It was Edwards's commitment to the doctrine of continuous creation that led him to such a radical conclusion. According to Edwards, if God is at every moment creating everything *ex nihilo*, then there is a constant influx of newly created things. Although they may be very similar to the entities that preceded them, the entities that exist at each moment are "new effects," distinct from everything that existed previously. As Roderick Chisholm has observed, Edwards was an early proponent of what has come to be known in contemporary philosophy as the *doctrine of temporal parts*.¹⁴ Indeed, we can

¹² He considers and replies to this objection in pt. IV, ch. III of *Original Sin*; Edwards (1758) pp. 982-96. For philosophical discussions and assessments of Edwards's defense of this doctrine, see Wainwright (1988) and Rea (2007).

¹³ Edwards (1758) p. 991.

¹⁴ See appendix A of Chisholm (1976); cf. Helm (1979).

understand Edwards as claiming that the doctrine of continuous creation entails the doctrine of temporal parts. I will refer to this claim as *Edwards's Thesis*.

When critics of continuous creation claim that it is incompatible with persistence, they almost invariably mean that it is incompatible with persistence qua endurance. So there is a sense in which Edwards' agrees with the critics: after all, if Edwards's thesis is correct, then continuous creation *is* incompatible with endurantism. But Edwards was hardly a critic – indeed, he was one of continuous creation's most enthusiastic proponents. Rather than concluding that continuous creation is incompatible with persistence, Edwards's contended that we simply need to correct our understanding of persistence. He outlined an alternative approach to persistence that anticipates those offered by contemporary believers in temporal parts (i.e. stage and worm theorists).

Edwards writes,

And there is no identity or oneness in the case [of an effect that is like the effects that preceded it], but what depends on the *arbitrary* constitution of the Creator; who by his wise sovereign establishment so unites these successive new effects, that he *treats them as one*, by communicating to them like properties, relations, and circumstances; and so, leads *us* to regard and treat them as *one*.¹⁵

Although successive effects are strictly distinct, they nevertheless bear various similarities to each other. God has created me at this moment with nearly all of the same properties had by a previous person-stage, and because of these similarities the present me and that previous person-stage are treated as though they were the same thing.

Persistence is analyzed in terms of similarity, not strict identity.

¹⁵ Edwards (1758) p. 991.

This approach to persistence served Edwards's purposes in *Original Sin*, for it implies that there is no fundamental difference between God's holding the me-of-today responsible for the sin committed by the me-of-yesterday and God's holding me responsible for the sin of Adam. In either case, "if we consider matters strictly, there is no such thing as any identity or oneness in created objects, existing at different times, but what depends on *God's sovereign constitution*."¹⁶ Thus, if God so wishes, God can treat me and Adam as the same because "*a divine constitution* is what *makes truth*, in affairs of this nature."¹⁷

Of course, the jargon and theoretical apparatus of temporal parts, person-stages, spacetime worms, counterparthood, and so on were not available to Edwards and so it should come as no surprise that his views are less developed than those of contemporary temporal parts theorists. I do not find, for example, any compelling reason to align Edwards with either the worm or stage view; indeed, I rather doubt he ever recognized them as distinct options.¹⁸ Nevertheless, the fundamental similarity between his view and these contemporary positions is striking: Edwards clearly accepted an ontology of

¹⁶ Edwards (1758) p. 992.

¹⁷ Edwards (1758) p. 992. There is some debate concerning how to interpret the force of such statements in Edwards. Chisholm (1976, p. 139) interprets Edwards as appealing "to a doctrine of truth by divine convention," according to which God could choose to treat *any* sum of temporal parts, no matter how diverse, as a single being. However, Helm (1979) attempts to downplay the force of such statements, arguing that Edwards's approach to identity is essentially Lockean. On Helm's interpretation, in order for A and B to constitute a "moral unity" such that God can punish B for A's offense, "it is not sufficient merely that God decides to treat A and B as a unity. It is also necessary that there is a certain fitness in the relation between A and B" (p. 47). See Helm (2003) for a more recent and thorough assessment of the relationship between Locke's and Edwards's views on identity.

¹⁸ Cf. Rea (2007) p. 335.

instantaneous temporal parts or stages, explicitly denied that any two distinct stages are strictly identical, and yet argued that they can be united as stages of the same thing by relations of continuity and similarity.

But there are also some noteworthy differences between Edwards and contemporary worm and stage theorists. For one thing, Edwards takes the similarity or counterpart relations that obtain to be divinely underwritten. The reason we find similarities among successive stages is that *God* has chosen to create them with “like properties, relations, and circumstances.”¹⁹ This leads to a second difference, closely related to the first: unlike most contemporary temporal parts theorists, Edwards denies that earlier stages cause the existence of later stages.²⁰ Instead, *God* brings about the existence of all stages. Finally, Edwards seems to be more flexible about what kinds of similarities are sufficient for sameness or persistence than many contemporary theorists would be comfortable with. According to Edwards,

There are *various kinds* of identity and oneness, found among created things, by which they become one in *different manners, respects, and degrees*, and to *various purposes* Some things, existing in different times and places, are treated by their Creator as one in *one respect*, and others in *another*; some are united for *this communication*, and others for

¹⁹ Edwards (1758) p. 991.

²⁰ Any continuous creationist must deny this because the denial is implied by continuous creation. (Unless, that is, we adopt a view according to which the existence of later stages is causally overdetermined by both divine continuous creation and by the contributions of earlier stages. For reasons I will discuss in Chapter Seven, I do not find such overdetermination to be at all plausible and so I ignore the possibility here.) However, it is interesting that for Edwards the inference goes in the other direction as well; he defends the doctrine of continuous creation on the basis of an argument that it is *not possible* for earlier stages to cause the existence of later stages. In other words, he reasons roughly as follows: the existence of later stages must be caused; their existence is caused either by earlier stages or by God; it cannot be caused by earlier stages; thus, it must be caused by God. See Edwards (1758) pp. 988-90.

that; but all according to the *sovereign pleasure* of the fountain of all being and operation.²¹

For Edwards, it seems that the similarity relations can be as flexible as it suits God's purposes for them to be. Of course, Edwards needs the relations to be pretty flexible if they are to serve his theological purposes in *Original Sin*. He needs to be able to unite or "stick together" not only the various stages of what we regard as the "same person," but also the stages of all of mankind.

Nevertheless, in spite of these differences, Edwards's overall approach to persistence is remarkably similar to those of contemporary worm and stage theorists. We will more carefully examine the prospects for combining continuous creation with these theories in sections III and IV below.²²

²¹ Edwards (1758) p. 992. Then again, some contemporary theorists might *not* be put off by Edwards's flexibility. Sider (2001, p. 206-7) suggests that the flexibility allowed by the counterparthood relation may be "counterpart theory's greatest strength." He points out that for any modal intuition or persistence intuition we might have (even those that conflict with other intuitions), counterpart theorists can conjure up a counterpart relation to justify it. Conflicting intuitions simply involve different counterpart relations.

²² To my knowledge, the only contemporary continuous creationist who has explicitly defended a temporal parts approach to persistence is William Vallicella (2002). However, Vallicella defends a decidedly unpopular view that he calls "presentist four-dimensionalism." On the face of it, presentism and four-dimensionalism appear to be incompatible doctrines. Four-dimensionalism identifies persisting entities with four-dimensional spacetime worms composed of infinitely many instantaneous three-dimensional temporal parts. Presentism, on the other hand, claims that the only things that exist are things that presently exist, which entails that no four-dimensional spacetime worm ever could exist. At most, presentism is compatible with the successive existence of a series of temporal parts. But since only one of these parts exists at any moment, they can never compose four-dimensional spacetime worms. For a defense of presentist four-dimensionalism see Brogaard (2000). For a more detailed development of the sort of criticism I have raised above see Benovsky (2006) ch. 3.

III. Continuous Creation and Worm Theory

The vast majority of those who accept a temporal parts ontology also accept worm theory's account of persistence. According to worm theorists, persons, books, cars, and so on, are four-dimensional spacetime worms; to say that these things exist at specific times is simply to say that they have temporal parts that exist at those times. Thus, worm theory requires some revisions to our commonsense conception of persistence. According to worm theory, it is not, strictly speaking, *me* that exists right now, but only a small *part of me* – *I* exist right now only in the derivative sense that I have a temporal part that exists right now.

Some critics have found this objectionable; for example, Mellor observes that only a worm theorist “would say that only parts of Sir Edmund Hillary and Tenzing Norgay climbed only a part of Everest in 1953. The rest of us think those two whole men climbed that one whole mountain.”²³ But although these implications of worm theory are counterintuitive, I do not think they are objectionably so. The analogy worm theorists draw between spatial and temporal parts is particularly helpful here. After all, in our everyday speech we frequently attribute features of spatial parts to their wholes. I describe my car as gold-colored, but only the body of it is really that color. We say that a bicycle is broken if it has a broken chain, even if it is otherwise in perfect condition. We say that a soccer team scored a goal, when in fact it was a single player who scored the goal for the team. And we say that the player scored the goal by kicking the ball, but

²³ Mellor (1998) p. 86. Although he is making a somewhat different point, compare the following observation in Simons (2000, p. 62): “Outside philosophical seminars a four-dimensionalist never says ‘A two-hour phase of me last night was a waking-phase’; he says, with the rest of us, ‘I was awake for two hours last night’.”

really it was only her foot that struck the ball. In each of these instances, something is attributed to a larger whole in virtue of being attributable to one of the parts. Worm theory simply asks us to understand talk about persistence in an analogous way. We are to understand an object's persisting, or existing at different times, in terms of its having parts that exist at different times. And we are to understand temporal predications, such as "Ted was once a boy," as being true at t if and only if Ted has an earlier-than- t part that is a boy. Upon reflection, worm theory's analyses of persistence and temporal predication make good sense, even if they are somewhat counterintuitive.

Moreover, worm theory seems to comport well with the doctrine of continuous creation. Indeed, it seems to offer a quite simple and straightforward way of understanding the doctrine – to say that God is continuously creating me is simply to say that at each moment God creates the temporal part of me that exists at that moment. Nevertheless, I shall argue below that, contrary to appearance, continuous creation is incompatible with any plausible version of worm theory. In section III-A, I will argue that any plausible version of worm theory will require that the stages of persisting individuals be causally related to each other in some way. Then, in section III-B, I will argue that continuous creation is incompatible with this causal requirement.

III-A. How to Make Worms out of Stages

Just above I defended worm theory as an adequate approach to persistence, but I must add one important qualification to this endorsement. Worm theory identifies persisting entities with sets or mereological sums of instantaneous three-dimensional temporal parts, but it needs to say more concerning why we should regard such pluralities of distinct temporal parts as more than *mere* pluralities. That is, why should we think that

a plurality of instantaneous three-dimensional entities composes some further four-dimensional persisting entity? Why not regard them as merely a succession of instantaneous, non-persisting entities? Worm theorists owe us some account of the metaphysical glue that unites temporal parts so that they compose a single persisting individual.

Perhaps this will seem like an unnecessary demand. After all, if worms are sets (or mereological sums) of temporal parts, their parts are already united by membership in a set (or, perhaps, by a fusion principle that generates the mereological sum). But the demand *is* necessary because set membership is too indiscriminate a relation (and assuming that mereology is unrestricted,²⁴ the same holds for mereological sums). There are obviously far more sets (mereological sums) of temporal parts than there are persisting entities. Consider, for example, the set (mereological sum) whose members are your even-year temporal parts and my odd-year temporal parts. Membership in this set (sum) surely does not unite those temporal parts into a single persisting individual! Thus, worm theorists need to offer some account of what distinguishes sets (sums) of temporal parts that compose persisting objects from those that do not. I will argue below that the most plausible accounts worm theorists have offered include necessary conditions for persistence that are incompatible with continuous creation.

²⁴ And taking mereology to be restricted in some way only shifts the problem. If mereology is unrestricted, then the challenge is to explain which sums of temporal parts compose persisting individuals. But suppose mereology were restricted such that the only mereological sums of temporal parts are those that do compose persisting individuals. Then the challenge simply shifts to one of specifying how exactly mereology must be restricted in order to achieve the right result.

What important features distinguish the set composed of all and only my temporal parts from the set composed of your even-year parts and my odd-year parts? The most obvious answers would seem to be spatial and temporal continuity. If we traced my temporal parts through time and space, we would follow a continuous path, but if we traced the parts of the other set through time and space, we would find strange discontinuities. There would be spatial jumps at the end of each year, and assuming that you and I were born several years apart, there would be year-long temporal gaps at the beginning (in the even years if I was born earlier and in the odd years if you were born earlier). And of course, if we die several years apart there will be year long temporal gaps at the end as well. So a natural first thought is that the sets that compose persisting individuals are all and only those that are spatiotemporally continuous.

However, in spite of its initial attraction, numerous thought experiments highlight the shortcomings of spatiotemporal continuity. For example, Shoemaker (1979) imagines two machines, one a “table canceller” and the other a “table producer.” The first can be set to annihilate any tables that exist at some specific time and location, and the second can be programmed to cause a table to materialize instantly. Suppose that by sheer accident the table producer is programmed to produce a table at the exact time and place that the table canceller is set to annihilate a table. Suppose further that the table producer just happens to be programmed to produce a table exactly like the one that is to be annihilated. People watching the table(s) throughout this process would be unaware that anything remarkable had taken place – they would simply observe a spatiotemporally continuous succession of table stages and they would assume that they composed a single persisting table. Nevertheless, if we then explained to the observers what had really

happened, they would surely change their opinions. They would no longer say that a single table has survived, but rather than an earlier table was destroyed and replaced by a perfect, but nonetheless distinct, replica. Shoemaker also offers an alternate version of the thought experiment in which the machines are replaced by a single “absent-minded deity” who on one occasion decrees that something should be annihilated at some specific time, and on another occasion, having forgotten the earlier decree, decrees that an exactly similar thing should come into existence at that very same moment. Armstrong (1980) offers another variation of the thought experiment in which one deity annihilates Richard Taylor at precisely the same moment that a second independent deity decides to create a person exactly like him.

The common moral drawn from these thought experiments is that spatiotemporal continuity is not by itself sufficient for persistence.²⁵ But they also seem to point to a simple diagnosis of the problem and a way forward. Each thought experiment describes a situation in which there are spatiotemporally continuous sets of table- or person-stages that we do not regard as constituting a single persisting table or person. Why not? Why, for example, do we deny that the table stage caused by the table producer and the table

²⁵ Cf. Morreall (1980) and Swyer (1984). Swyer argues that similar thought experiments reveal that spatiotemporal continuity is not necessary for persistence either. Suppose that Shoemaker’s table producer were paired with a “table shifter” – a machine that could instantaneously move a table from one position to another. Now suppose the table shifter moves a table ten feet to the left and at the very same moment the table producer replaces the shifted table with an exact replica. Like the other thought experiments, this one demonstrates that spatiotemporal continuity is not sufficient for persistence since the spatiotemporally continuous set of table stages involves two different tables. But since in this version the original table has survived (it is now sitting ten feet to the left of where it was originally), it shows that spatiotemporal continuity is not necessary either. I am unsure what to make of this version of the thought experiment because I am unsure of whether it is possible for a table to be instantaneously shifted. I simply have no strong modal intuitions either way.

stage annihilated by the table canceller are parts of the same table? It seems that the answer must involve causation: the later table stages are not causally related to the earlier table stages in an appropriate way to be part of the same table. Indeed, the later stages are not causally related to the earlier stages *at all*.

A causal account of what unifies the stages or temporal parts of persisting entities has several important advantages over a spatiotemporal account.²⁶ First, as I have just noted, a causal account offers the most natural explanation of why our intuitions conflict with the spatiotemporal account in the above thought experiments. Second, a causal account also explains why spatiotemporal continuity was such a natural and tempting account in the first place. As Armstrong observes, “spatiotemporal continuity of phases of things appears to be a mere result of, an observable sign of, the existence of a certain sort of causal relation between the phases.”²⁷ Under normal circumstances (when we are not deceived by cancellers, producers, absentminded deities, and so on) spatiotemporal continuity is our best evidence of persistence, and that makes it easy to mistake the evidence for its underlying explanation. The reason that the stages of an individual are spatiotemporally continuous is that they are causally connected, and this is also the reason why they compose a single persisting individual. Finally, a causal account garners further support from the analogy between temporal and spatial parts. We are far more

²⁶ For a more detailed discussion of the advantages of causal over spatiotemporal accounts of persistence, see Swoyer (1984).

²⁷ Armstrong (1980) p. 76. Compare Shoemaker (1979, p. 242): “I do not know whether material persistence requires spatiotemporal continuity; but I suspect that if it does, this is because the relevant sorts of causality require it.” Likewise, Swoyer (1984, p. 602): “even if it should turn out that the transtemporal identity of objects is *in fact* always accompanied by spatiotemporal continuity, it would still be reasonable to regard a causal account of identity as basic and use it to explain the presence of the continuity.”

inclined to regard a rock as a single object than we are a heap of rocks, even though both a rock and a heap of rocks have spatial parts that exhibit spatial contiguity. The difference is causal. Although the spatial parts of a heap of rocks do bear some causal relations to one another (e.g. some rocks happen to rest upon others), the spatial parts of a single rock bear much stronger and more permanent causal relations to each other, and it is for this reason that we do not hesitate to regard the rock as a unity. If causal relations are necessary for uniting the spatial parts of a single object, then given the close analogy between spatial and temporal parts, we should not be surprised to find that causal relations are also necessary to unite an object's temporal parts.²⁸

The preceding considerations support the conclusion that any plausible version of worm theory will have to include causal relations as a necessary condition in its account of what unites a plurality of stages as parts of a single persisting entity. Several philosophers have suggested that some sort of causal relation(s) will be both necessary *and* sufficient for persistence, although the exact nature of such a relation remains unclear. As Shoemaker notes,

It is obvious that not just any relation of causal dependence between successive thing-stages is sufficient to make the stages belong to the history of a single persisting object; otherwise forgeries of paintings would be identical to the originals from which they are copied, with all the absurdities that entails.²⁹

²⁸ Armstrong (1980, p. 74) also draws attention to the importance of causal relations between spatial parts.

²⁹ Shoemaker (1979) p. 247.

Unfortunately, relatively little has been done in the way of specifying exactly what causal relations would be both necessary and sufficient for persistence.³⁰ Shoemaker describes the task as “probably impossible” and does not even try. Swoyer is slightly less pessimistic (he describes the task merely as “extremely difficult”), but he contends that the task is to be carried out by scientists, not philosophers.³¹

However, we do not need any very precise characterization of the required causal relations to recognize the problems they will raise for combining worm theory with continuous creation. Generally speaking, if a series of temporal parts is to be united as stages of a single persisting individual, it seems that the earlier temporal parts will have to causally contribute to one (or both) of the following: (a) the *existence* of the later temporal parts, and/or (b) at least some of the *properties* possessed by the later parts. Call the former version *existence-causal worm theory* and the latter version *property-causal worm theory*. I will argue below that both versions are problematic for continuous creationists.

III-B. Why Continuous Creationists Cannot Make Worms out of Stages.

Although many temporal parts theorists affirm that earlier stages cause the existence of later stages, David Armstrong is the only one, to my knowledge, who has explicitly claimed that existence-causation is necessary for persistence. According to Armstrong, uniting distinct stages of a persisting object requires “the actual *bringing into*

³⁰ Zimmerman (1997) is a noteworthy exception. I will discuss his proposal below.

³¹ See his discussion in Swoyer (1984) pp. 604-11.

existence of later by earlier temporal parts.”³² Unfortunately, this existence-causal version of worm theory is flatly inconsistent with continuous creation. As Edwards clearly realized, if God is the total and exclusive cause of the existence of everything at every moment, then nothing else is in on the act. Thus, since continuous creationists deny that earlier stages cause the existence of later stages, it seems that the property-causal version of worm theory is their only option.

But is the property-causal version of worm theory acceptable, and can it be consistently conjoined with continuous creation? Vander Laan (2006) entertains the possibility, but concludes that it is vulnerable to too many problems. For example, he points out that the stages of *distinct* individuals often make causal contributions to the properties possessed by one another, without thereby being united as stages of a single persisting entity:

The heat of the match and the coolness of the air together bring about the tepidity of the water, but the water is not identical to the match or to the air. Besides this, the character of the first created objects could only have

³² Armstrong (1997) p. 74; cf. pp. 104-7. For most four-dimensionalists, the primary motivation for saying that earlier stages cause the existence of later stages is that it offers a plausible reply to Judith Jarvis Thomson’s (1983) caricature of four-dimensionalism as the crazy view that new things are “constantly coming into existence *ex nihilo*” (p. 213). Contrary to Thomson, most temporal parts theorists deny that temporal parts pop into existence uncaused, insisting instead that their existence is caused by the parts that preceded them. See, for example, Sider (2001) p. 217; Heller (1990) p. 19; and Oderberg (1993) p. 86. Although Oderberg is himself a critic of four-dimensionalism, he accepts this response to Thomson’s objection as adequate.

Of course, continuous creationists who are attracted to four-dimensionalism have their own plausible response to Thomson’s charge. When she says that new things keep coming into existence *ex nihilo*, she means that they pop into existence entirely *uncaused*; but continuous creationists would insist instead that they are *created* (i.e. caused to exist) *ex nihilo* by God.

been caused by God's action, but of course God is distinct from the objects so created.³³

Thus, Vander Laan rejects the property-causal theory of persistence because he thinks it will be unable to distinguish between identity-grounding and non-identity-grounding instances of property-causation, and more specifically, because he thinks it will be unable to distinguish between the creator and the first creatures.

However, Dean Zimmerman (1997) has defended a property-causal theory of persistence that seems to handle such cases easily.³⁴ He explains his theory in terms of the distinction between *determinable* and *determinate* properties. Being colored is an example of a determinable property under which various determinate properties fall – e.g. being red, being green, etc. Similarly, having shape is a determinable property under which determinates such as being square and being triangular fall. Zimmerman's theory claims that "the possession by an object of intrinsic properties falling under a certain determinable must be caused, in part, by the object's earlier exemplification of intrinsic properties falling under the same determinable."³⁵ In other words, in order to be united as stages of a persisting object, the determinate shape of an object-stage must be caused, at

³³ Vander Laan (2006) p. 165. In a similar vein, he wonders: "If the character of an object is caused in part by its earlier character and in part by its environment, why is it the latter [*sic*] that (so to speak) passes its identity to the causal patient?"

³⁴ Zimmerman's account clearly places its *primary* emphasis upon appropriate kinds of property-causation between earlier and later stages. However, it is not clear to me whether Zimmerman thinks that earlier stages must also cause the *existence* of later stages. If he does think so, then his approach is not a pure property-causal one.

³⁵ Zimmerman (1997) pp. 450-1. Although Zimmerman explains his theory in terms of the distinction between determinable and determinate properties, he seems to think the theory could be reformulated without it if that distinction turned out to be specious; see Zimmerman (1997) p. 452.

least in part, by the shape of the object's earlier stages. Likewise, its determinate mass must be caused, at least in part by the mass of the earlier stages, and so on for, color, size, etc. This offers tidy solutions to all of the cases Vander Laan finds problematic. Consider, for example, the case of the match that causally contributes to the tepidity of the water. In order to demonstrate that the water is distinct from the match, all we need to find is one determinate property of the water that is not caused by the match's possession of a property falling under the same determinable. Thus, since the match's mass makes no contribution to the water's having the mass it has, the match and the water are not causally related to each other in the way persistence requires. Similarly, since God has no mass properties at all, God cannot be causally related to anything that has mass in a way that satisfies Zimmerman's property-causal account of persistence. So Zimmerman's theory also has the resources to properly distinguish between creatures and creator.

Since existence-causal versions of worm theory are flatly inconsistent with continuous creation, it seems that a sophisticated property-causal version such as Zimmerman's is probably the most plausible option for continuous creationists. Nevertheless, this approach faces a further difficulty that is not easily overcome: namely, that of explaining how causal interactions between stages are possible at all. This opens the door to a large and complicated issue that we will explore in detail in Part III. Here I can do little more than gesture in the general direction by noting that it is paradoxical, to say the least, to insist that earlier temporal stages make causal contributions to the properties of later stages when those later stages would not even exist unless they were immediately created by God. If God has to step in at later moments to create them, then it is hard to see how anything other than God can contribute to the properties these later

stages possess. As we will see in Chapter Six, there is a rather powerful argument to be made for the conclusion that continuous creation is incompatible with secondary causation. Unless that argument can be rebutted, it seems that continuous creation will be incompatible with *any* plausible version of worm theory – existence-causal *or* property-causal.

IV. Continuous Creation and Stage Theory

Let us pause to briefly review the argument thus far. According to Edwards's thesis, the doctrine of continuous creation entails an ontology of temporal parts. If Edwards is right, then continuous creation is incompatible with endurantism, but would appear to be a natural fit with temporal parts approaches to persistence such as worm theory. But worm theorists need to explain why a bunch of distinct instantaneous objects (stages) should be regarded as composing a further persisting individual or worm, and the most plausible accounts worm theorists have offered all require some kind of causal relation(s) between stages. Unfortunately, continuous creation seems to be incompatible with such causal relations between stages, and so we have concluded that continuous creation is not really compatible with worm theory after all.

At first glance, it may seem to follow that continuous creation is incompatible with stage theory as well. After all, stage theorists endorse the very same ontology as worm theorists do – they too insist that there are worms composed of stages. So if continuous creation prevents worm theorists from offering an adequate account of what unites stages into worms, it will raise the same problem for stage theorists. However, the conclusion that continuous creation and stage theory are incompatible is premature.

Although stage theorists such as Sider and Hawley do, as a matter of fact, accept the existence of worms, that commitment is not in any way essential to their theory of persistence. Stage theory's approach to persistence requires only two things – stages and the counterpart relation. Of course, if the counterpart relation requires causal relations between stages, the same problems will simply emerge again in a slightly different form. But since stage theorists do not need to insist that stages literally compose a further four-dimensional entity, similarity and spatiotemporal continuity alone may be adequate for the counterpart relation. So for present purposes, let us simply stipulate that causation is not a part of the temporal counterparthood relation.

If counterparthood can simply be a matter of similarity and continuity, there is no apparent reason why stage theory and continuous creation should be incompatible. Indeed, I am willing to grant their compatibility. Nevertheless, I will argue that stage theory must be rejected, not because of some implicit incompatibility with continuous creation, but rather because it not really a theory of persistence at all.

IV-A. Why Stage-Theoretic Persistence is not really Persistence

I have already summarized stage theory's account of persistence above, so I will be very brief here. Persisting objects such as books, cars, and persons are instantaneous three-dimensional stages that persist by having counterparts at different times. Although the copy of Sider's *Four Dimensionalism* lying on the floor next to me is an instantaneous book-stage, it is nevertheless true that it was previously sitting on my desk. What makes that statement true is the fact that a previous book-stage once sat on my desk, and that previous book-stage happens to be a counterpart of the book-stage lying on the floor next to me. We can say that the book lying next to me *has persisted* (or *will*

persist) as long as it has past (or future) counterparts. And we can say that it *was* (or *will be*) *read* as long as one of its counterparts once was (or will be) read. That, in a nutshell, is how stage theory deals with matters of persistence and temporal predication.

Counterpart theory in both its modal and its temporal guises has been consistently met with the objection that the truth conditions it offers are utterly irrelevant to the truth or falsehood of the statements they are intended to analyze.³⁶ If I tell you, “Ted was once a boy,” I most assuredly do *not* mean that there once was *something distinct from* Ted that was a boy. On the contrary, I mean to say that the very individual we refer to right now as ‘Ted’ existed at an earlier time and at that time was a boy. Stage theorists assent to the sentence but use it to express a very different proposition. As they use it, it expresses the proposition that there once was a person-stage that was a boy and that this person-stage stands in some similarity relation to the person-stage we now call ‘Ted.’ But that is just a case of changing the subject! I am saying something about *Ted* – that *he himself* was once a boy. Stage theorists, on the other hand, are saying that *someone else* was once a boy (and it *must* be *someone else*, for stage theorists say that persons are stages, and stages exist only for/at a single instant).

It is little wonder that Plantinga and other critics have charged that counterpart theory manages to achieve nothing more than verbal agreement with the rest of us.³⁷ In

³⁶ The “irrelevance objection” has been repeated often. See, for example, Kripke (1972) p. 45; Plantinga (1982) pp. 114-20; Plantinga (1987) pp. 209-10; Perry (1972) 479-80; and Salmon (1986) pp. 98-9.

³⁷ Plantinga (1982) pp. 117-9. Plantinga’s criticism is directed towards modal counterpart theory, but it is equally germane to temporal counterpart theory.

his review of Katherine Hawley's *How Things Persist*, Trenton Merricks emphasizes just how superficial this verbal agreement is. He explains:

The only difference between Hawley's theory and the thesis that ordinary objects are instantaneous and do not persist lies in Hawley's definition of 'persist' (and corresponding definitions of past- and future-rooted predicates like 'was green'). . . . Stripped of this linguistic innovation, hers is simply the theory that no ordinary object lasts over time.³⁸

In other words, stage theory is nothing but a fancy way of dressing up non-persistence.

Remove the fancy garb and all that is left is the entirely unattractive metaphysical thesis that nothing persists.

Perhaps this criticism seems too easy – surely, one might think, stage theory is being represented uncharitably. Actually, I think that Merricks's comments cut to the heart of what is wrong with stage theory. But for those who remain skeptical, I will attempt to drive home the point by coming at the problem Merricks has identified from a slightly different direction. Call the following view *Replacement Theory*:

Nothing persists. The only things that exist are instantaneous, non-persistent individuals. These individuals are replaced, moment-by-moment, by similar, but distinct, instantaneous, non-persisting individuals.

Replacement theory is an unattractive view – one I certainly hope is false. Nevertheless, I think it must be admitted that it is a perfectly coherent metaphysical theory. Indeed, I claim that it is more evident that replacement theory is coherent than it is that stage theory is a theory of genuine persistence. This poses a problem for stage theory, for if we accepted its construal of persistence, replacement theory would be incoherent. According to stage theory, persisting *just is* being replaced by similar but distinct objects (or

³⁸ Merricks (2003) p. 147. Merricks suggests that a more appropriate title for Hawley's book would have been *Things Don't Persist*.

counterparts), and so replacement theory would both affirm and deny that things persist. Since it is evident that replacement theory is *not* incoherent, it follows that stage-theoretic persistence must not be genuine persistence.

Instead of trying to convince us that stage theory offers an account of genuine persistence, stage theorists ought to be more candid and admit that they think our commonsense beliefs about persistence are mostly false.³⁹ Far from being a theory of genuine persistence, what stage theory really amounts to is the view that genuine persistence is a fiction. If stage theorists are right that all “continuants” are instantaneous stages, then nothing really does persist. Of course, we might still pretend that they do, but that is another matter. Indeed, stage theory could be more aptly understood as an account of how we *feign* persistence than as a theory of true persistence.

IV-B. Why Feigning Persistence is not enough

My reference to “feigning persistence” is intended to call to mind the views of Roderick Chisholm. Although Chisholm is certainly not a stage theorist (he is really an endurantist of sorts), he has famously defended the view that in our everyday, non-philosophical ways of thinking and speaking about the world we frequently feign the identity or persistence of entities that, strictly speaking, do not persist. Moreover, he argues that our doing so is pragmatically useful and hence, justified.⁴⁰ Could a candid

³⁹ I say *mostly* false because at least *some* of our commonsense beliefs would still be true. For example, many *non*-persistence beliefs (e.g. my belief that the apple I am about to eat will not exist a minute from now) would no doubt still be true, although they would be true for different reasons than what we commonly suppose.

⁴⁰ Chisholm accepts the endurantist account of persistence for simples and for composite entities that do not undergo any changes in their parts. However, he argues on the basis of mereological essentialism that any time a composite object loses or gains a spatial part, the former object ceases to exist and is replaced by a new composite object. For example,

stage theorist adopt this line and develop it into a defensible position? That is, could a stage theorist candidly acknowledge that nothing really persists, and simply defend the view that stage theory offers an account of how we justifiably feign persistence?

With respect to vast stretches of reality, such a position might be defended as generally inoffensive. For example, I frankly do not care all that much whether the car in my garage is strictly identical to the car I parked there last night. I do think and speak as though they are strictly identical, but when it comes down to it, as long as there is a car there this morning suitably similar to the one I parked there last night – e.g. if it looks the same, runs as well, is recognized as belonging to me, etc. – I could care less whether they are literally the same car or merely temporal counterparts. Moreover, even if I came to believe that they were merely counterparts, I would still continue to speak of them as if they were literally the same. It would complicate our language immensely to speak of each temporal part as a distinct object. That would be the literal truth of things if stage theory were correct; nevertheless, it would be pragmatically useful to adopt the fiction of

when I take my car to the mechanic for new brakes, the car I drive home in is not, strictly speaking, identical to the car I drove to the shop. Nevertheless, there are good pragmatic reasons for treating them as though they are the same. Thus, we “feign their identity” or “play loose with the ‘is’ of identity.” See Chisholm (1976) ch. III.

I have presented stage theory as though it were supposed to be an account of *genuine*, rather than merely *feigned*, persistence. This seems to me to be the most natural way to understand Sider’s repeated claims that stage theory is *true persistence*. However, there is a tension between those claims and Sider’s later suggestion that persistence is merely a matter of convention. There he claims that Chisholm’s view “pretty much amounts to a three dimensionalist counterpart theory”; see Sider (2001) p. 207. But I would contend that there is a crucial difference between Chisholm’s view and Sider’s. Chisholm explicitly denies that his is an account of *true persistence*; he makes clear that he is merely offering an explanation of how we *feign* the persistence of entities that, strictly speaking, *fail* to persist. If *that* is how Sider understands stage theory, he should stop claiming that it is an account of *true persistence*!

persistence whenever we left the philosophy department.⁴¹ My car is not unique in this respect. I could say essentially the same things concerning a vast array of familiar objects: I could really care less whether most things – the books on my shelf, the tree in my front yard, the carpet in my office, etc. – really persist or are simply replaced by counterparts.⁴²

However, there is at least one segment of reality in which feigning identity is more deeply offensive and problematic. When it comes to persons and their persistence, I

⁴¹ Peter Simons (2000) seems think that such considerations favor endurantism over its rivals. He writes:

no one has ever put in the sheer hard graft required to see how a language would look and function which treated all particulars as occurrents. . . . I would not be so confident as to deny that such a feat is possible, only that its feasibility awaits demonstration. So until further notice I claim we are justified in upholding the commonsense position that there are continuants (p. 62).

His target in this passage is worm theory, but an analogous point could be made concerning stage theory – nobody has worked out all the details of a language that treated all particulars as stages, and it is not at all clear that such a project is feasible. But how exactly does this lend support to endurantism? Why should we think that a true metaphysical description of the world must be linguistically feasible? I suspect that any metaphysically rigorous description of the world would result in a highly complex, and hence unfeasible language. The unfeasibility is a result of human cognitive limitations and should not be counted against metaphysical views. Cf. Melia (2000) p. 86.

⁴² There are some instances in which it might seem to matter. Consider, for example, a collectible item that is valuable because of something in its past history. Suppose I paid top dollar for a baseball that Lou Gehrig once hit out of the park for a grand slam. Suppose further that after reading Sider I have become convinced that what I purchased is not really the baseball Gehrig hit, but merely a counterpart of that baseball. Should this revelation bother me? I think it would surely temper my enthusiasm, at least temporarily, but perhaps my disappointment would be short lived. Perhaps I would grow to be content with owning a counterpart of the ball Gehrig hit. I might tell myself: “The ball that landed over the fence was itself merely a counterpart of the ball that contacted Gehrig’s bat. Owning the sole present counterpart of the ball Gehrig hit is as good as it gets.”

care a great deal about whether strict identity is involved.⁴³ It would deeply trouble me to discover that I am not really identical to “my former selves.” Likewise, it would bother me a great deal to learn that the woman I refer to as my wife is not identical to the girl I met in college, later proposed to, and eventually exchanged vows with. For cars and most other things I can put up with mere counterparts (any car-stage with certain characteristics will do). But when it comes to persons I cannot be so pragmatic. One of my most fundamental beliefs is that I and other persons persist in some robust sense – that, as Chisholm and Bishop Butler would put it, persons maintain their identity in “the strict and philosophical sense.”⁴⁴ It is a belief I would abandon only in the light of very weighty counterevidence.

Moreover, if we were forced to reject this belief, we would have to face squarely the radical consequences of doing so. I think the costs are especially high for certain moral concepts like responsibility and the related concepts of reward and punishment. The idea of rewarding or punishing persons for the actions of their counterparts makes no sense whatsoever. If you are unsure about this consider the following parallel. If David Lewis was right, you have modal counterparts who commit all sorts of heinous acts, but it would surely be absurd to hold *you* responsible for *their* actions. (It would be absurd, I

⁴³ I acknowledge that this is a controversial opinion. Some philosophers do not think that identity is really what matters when it comes to the persistence or survival of persons. Most notably, Derek Parfit has defended the view that what really matters is not identity but mental continuity – having the right sort of connections among one’s mental states; see Parfit (1971), (1984), and (1995). But others are as insistent as I that identity is important for the persistence of persons; Lewis (1976) describes the assumption that identity matters as “a compelling commonsense answer, an unhelpful platitude that cannot credibly be denied” (p. 18).

⁴⁴ Chisholm (1976) p. 92 and Butler (1798) p. 360.

claim, even if Lewis's views about possible worlds were spot on. Your innocence does not hinge upon whether or not Lewis's metaphysics was correct!) Now consider: does punishing persons for the actions of their *temporal* counterparts make any more sense than punishing them for the actions of their *modal* counterparts? I simply see no reason why it should. In either case, persons would be punished for actions performed by *other* individuals – individuals, I might add, over whom they have no control. If the stage theorist is right that persons are stages, the practices of punishment and reward are manifestly unjust, and so in this context, feigning identity would be morally reprehensible.⁴⁵

I argued at the beginning of this chapter that persistence is crucially important to theistic religions because doctrines and concepts central to these religions – immortality, forgiveness, redemption, etc. – would be rendered meaningless or simply false if we denied persistence. Clearly, these doctrines and concepts would be undermined by feigning persistence no less than they would by rejecting it outright. If feigning

⁴⁵ If we interpret Edwards as a stage theorist, then this moral complaint can be developed into a critique of Edwards's strategy for defending original sin. Edwards saw that if we adopt a temporal parts approach to persistence, then the current "me" is distinct from my earlier "person-stages" no less than it is distinct from Adam. The conclusion he drew was that God's holding me responsible for Adam's sin is *no less* just than God's holding "the present me" responsible for the sins of my earlier person-stages. But if responsibility requires identity, then what Edwards's argument really does is lower the moral status of holding a person responsible for his or her "own" past sins (for they are not really his or her *own* sins). The proper conclusion to draw is not that both cases are equally *just*, but rather that both are equally *unjust*.

Quinn (1983) raises another noteworthy criticism of Edwards's strategy. If persons are instantaneous, and if all actions take time to perform, then no human person exists long enough to perform an action. Assuming that sinning involves performing an action, it follows that no one exists long enough to sin. (Cf. Benovsky (2006) pp. 100-101.) Quinn concludes that given Edwards's metaphysics, "no one actually ate the forbidden fruit, and the great Christian doctrine of original sin is not defended, but dissolved" (p. 66).

persistence is incompatible with moral responsibility, then it is likewise incompatible with forgiveness and redemption (I cannot be forgiven for that of which I am not guilty). And feigned immortality cannot be a rational source of hope (or fear). In light of all these considerations, stage theory is a grossly unattractive option.

V. Conclusion

So where does this leave us? We have now examined the two competing accounts of persistence offered by temporal parts theorists – stage and worm theory – and found that neither is a legitimate option for continuous creationists. Thus, it seems that if we accept Edwards’s thesis – i.e. the thesis that continuous creation entails a commitment to an ontology of temporal parts – we will be forced to conclude that continuous creation and persistence really are incompatible. Furthermore, I have suggested that if we are forced to that conclusion, then, since persistence is essential to so many fundamental doctrines and concepts of theistic religions, we will be forced to reject the doctrine of continuous creation. Since Edwards’s thesis has such far-reaching and unwelcome ramifications, we would do well to scrutinize it a bit more closely. Is it really true that continuous creation entails a temporal parts ontology? Or, can continuous creationists resist Edwards’s thesis and consistently endorse the more intuitive endurantist account of persistence? These are the questions we will address in Chapter Five.

CHAPTER FIVE

Continuous Creation and Continuants

Our discussion of continuous creation and persistence thus far has yielded some unexpected conclusions. On the face of it, temporal parts theories of persistence seem to be the most promising option for continuous creationists because continuous creation and a temporal parts ontology seem to be a natural fit for each other. If different entities (i.e. different temporal parts) exist at every moment, it is quite easy to understand what continuous creation would amount to: at each moment, God would create the temporal parts that exist at that moment. Unfortunately, we have found continuous creation to be incompatible with any plausible account of what unites temporal parts as parts of a single persisting individual. Thus, our only remaining hope for reconciling continuous creation and persistence rests upon endurantism.

However, as I noted in the last chapter, those who charge that continuous creation is incompatible with persistence almost invariably mean that it is incompatible with endurantism, and it is not difficult to see why they would think this. Endurantism requires an ontology of continuants – individuals that exist in their entirety at different times. But a continuant ontology does not seem to comport well with continuous creation. Does it even make sense, critics ask, to say that God continuously creates the very same individual? Edwards clearly thought the answer was no. According to Edwards's thesis, continuous creation entails a temporal parts ontology and thus, is incompatible with a

continuant ontology. In this chapter, I will attempt to demonstrate that in spite of the intuitive plausibility of Edwards's thesis, continuous creationists can resist it. If the argument is successful, it shows that continuous creation is compatible with endurantism and its continuant ontology. Hence, there is no need to choose between continuous creation and persistence.

In section I, I will suggest a way of interpreting continuous creation such that only the effect of God's act of creation, and not God's creative act itself, is really continuous or ongoing. I will then argue that this interpretation of the doctrine undermines any intuitive support for Edwards's thesis. Then, in section II, I will discuss Quinn's strategies for resisting Edwards's thesis. His strategies would allow us to resist Edwards's thesis even if we understand both God's creative acts and their effects to be ongoing and continuous. Although Craig and Vallicella have raised several objections to Quinn's strategies, I will argue that none of them is convincing.

I. Resisting Edwards's Thesis I: The Interval Interpretation

Let us suppose that at t God creates a fundamental particle which I will dub *Speck*. Let us further suppose that Speck is a continuant that persists throughout the interval $t \rightarrow t'$. (CC) stipulates that for any moment t'' , such that $t \rightarrow t'$ includes t'' , Speck's existing at t'' is brought about by God's willing that Speck exist at t'' . As I noted at the end of Chapter Two, there are at least two different ways in which we can understand this. The most natural way to interpret (CC) is as affirming that for every moment t'' at which Speck exists, God forms a specific volition with the content "let Speck exist at t'' ." On this interpretation, God's volitions concerning Speck's existence can be mapped one-

to-one with the moments at which Speck exists. I will refer to this as the *Moment-by-Moment* interpretation of continuous creation. An alternative way of understanding (CC) is what I will refer to as the *Interval* interpretation. According to this interpretation, God forms a single volition concerning Speck's existence: namely, "let Speck exist throughout $t \rightarrow t'$." In order for Speck to exist throughout the interval $t \rightarrow t'$, Speck must exist at every moment included in the interval; indeed, it is quite natural to suppose that existing through an interval just *is* or *amounts to* existing at every moment included in that interval. Thus, to will that Speck exist throughout $t \rightarrow t'$ is to will, implicitly, that Speck exist at each moment included in $t \rightarrow t'$. So even though the interval interpretation of (CC) does not represent God as forming a separate volition of the form "let Speck exist at t'' ," it still offers a perfectly legitimate sense in which it can be said that Speck's existing at t'' is brought about God's willing that Speck exist at t'' .

It seems to me that the interval interpretation of (CC) entirely undermines the intuitions that support Edwards's thesis. The intuitive plausibility of that thesis depends upon a picture on which God performs a discrete act of creation for every moment of an individual's existence. But if we abandon that picture and adopt instead the picture of God's performing a single act of creation – e.g. God's willing "let Speck exist through $t \rightarrow t''$ " – then I can see no reason to suppose that the effect of that creative act should be a succession of temporal parts. On the contrary, if we assume the interval interpretation, it seems most natural to suppose that the effect of God's creative act would be the existence of a continuant, or an enduring individual.

I have already conceded that the interval interpretation is a somewhat less natural way to interpret the doctrine of continuous creation, but I do not think there is anything

deeply objectionable about it. Perhaps some might object to describing God's issuing a single volition as an instance of *continuous* creation. In other words, some might accuse me of reinterpreting the doctrine of continuous creation in a way that renders the modifier *continuous* meaningless. My reply is that the objection is based upon a misunderstanding. When creation is described as *continuous*, that modifier is intended primarily to describe the way in which the effect, the created individual, depends upon the divine action, and not so much to describe the divine action itself. Until recently, theists have almost universally conceived of God's eternity as an immutable existence outside of the temporal realm. Time, change, and succession have been thought to apply only to creatures, not to the eternal creator. Theologians and philosophers within this tradition could not have meant to affirm that God in any literal sense performs a continuous succession of discrete creative acts. As I emphasized in Chapter Two, the core claim of the continuous creation tradition is that each moment of a creature's existence depends upon God in the same way. In other words, what is affirmed to be literally continuous is the *creature's dependence* upon God for its existence; it is continuity on the side of the effect rather than on the side of the cause that is most important. And since that is affirmed by the interval interpretation of the doctrine no less than it is by the moment-by-moment interpretation, I think it must be admitted that the interval interpretation is a legitimate form of *continuous* creation.

Indeed, if God is timeless, I think there is at least some reason to think that the interval interpretation is preferable. There seems to be a tension (although not a direct incompatibility) between the moment-by-moment interpretation and timeless eternity. A timeless God could create in a way compatible with the moment-by-moment view either

by timelessly issuing multiple volitions (i.e. “let Speck exist at t ,” and “let Speck exist at t' ,” and so on) or by timelessly issuing a single conjunctive volition (i.e. “let Speck exist at t , and let Speck exist at t' , and . . .”).¹ However, I can think of no reason why a timeless God would choose either of these options since the single non-conjunctive volition, “let Speck exist throughout $t \rightarrow t'$,” seems to be a far more efficient option. Since the interval interpretation of continuous creation also seems to be immune to the threat of a commitment to temporal parts, it appears to be the overall more attractive option.

However, many contemporary philosophers find the idea of timeless eternity to be problematic and prefer to understand divine eternity as everlasting existence *within* time. As far as I can tell, the view that God exists within time is also compatible with either the moment-by-moment or interval interpretations of the doctrine. However, I think there could be some tension between the interval interpretation and some of the motivations for adopting a temporal conception of God. One of the reasons that many have rejected divine timelessness is that it is difficult to see how a timeless God could be genuinely related to temporal creatures. Many proponents of a temporal God do not conceive of God as willing from eternity past exactly what will occur, but rather as personally interacting with and responding to creatures as time unfolds. Such theists may prefer to think of God’s creative volitions as literally occurring moment-by-moment, simultaneous with their effects. Thus, it would be nice if the moment-by-moment interpretation were also compatible with endurantism and its continuant ontology. I will argue below that it is.

¹ On the latter option, it would be distinct *conjuncts* of God’s volition that mapped one-to-one with the moments of a created entity’s existence.

II. Resisting Edwards's Thesis II: The Moment-by-Moment Interpretation

Although I have suggested that (CC) can be understood along the lines of either the interval or the moment-by-moment interpretations introduced above, Quinn himself seems to have intended the moment-by-moment interpretation. Moreover, he argued that this interpretation of the doctrine is consistent with taking the objects of God's continuous creation to be continuants. In the sections below, I will explain and defend Quinn's strategies for resisting Edwards's thesis, but first I will try to clarify exactly why the moment-by-moment interpretation is thought to be in tension with endurantism in the first place.

II-A. Clarifying the Problem.

It might be tempting for proponents of the moment-by-moment interpretation to simply dismiss Edwards's thesis out of hand. Perhaps they might argue as follows:

We do not say that God moment-by-moment issues volitions of the form *let a Speck-part exist at t''*. Rather, we say that God moment-by-moment issues volitions of the form *let Speck exist at t''*. Since it is *Speck* that God wills to exist, it would be strange indeed if the effect of God's volition were that a mere Speck-part came into existence at *t''* instead of Speck itself!

While I am not entirely unsympathetic toward such a response, I do not think it ultimately goes far enough. In fact, as it stands, it might justifiably be accused of begging the question. An Edwardsian might reply as follows:

You are simply assuming at the outset that God can repeatedly create the very same thing, but surely that is nonsense! To create something just is to bring something new into existence, so to *continuously* create is to *continuously* bring new things into existence. You cannot defend yourself merely by reaffirming nonsense.

This imaginary Edwardsian has placed her finger on the fundamental underlying issues that a moment-by-moment endurantist must address: what is the relationship between creation and newness, and how can any sense be given to the notion of repeatedly creating the very same thing?

If the moment-by-moment interpretation of continuous creation is to be compatible with endurantism, then it must be possible for God to repeatedly create the very same entity. The problem is that our intuitive idea of what it is to create something is the idea of bringing about the existence of something *new*. If I create an artwork, I bring about the existence of an artwork that did not previously exist; likewise, in creating something *ex nihilo*, it would seem that God causes something not previously existent to come into existence. This intuitive idea of creation contains two conditions, one causal and one temporal; to say that God creates x at t is to say (a) that God causes x to exist at t (the causal condition) and (b) that x did not exist at any time prior to t (the temporal condition). The temporal condition is what underlies the intuitive plausibility of Edwards's thesis. If we are to understand divine conservation literally as continuous moment-by-moment creation, and if creation always involves bringing something new into existence, then it is impossible to create the same thing more than once and thus, Edwards's thesis seems unavoidable.

II-B. Quinn's Solutions.

Quinn actually adopted two subtly different, but very closely related, ways of dealing with this problem in his essays on continuous creation. Both are implicit in my summary of Quinn's theory in Chapter Two, although I did not draw attention there to the way in which they bear upon this issue. Crucial to both is a simple assumption: namely,

that it is possible to repeatedly *cause* the existence of the same individual. Unlike creation, causation carries no connotation of newness, and thus there is nothing obviously objectionable about the assumption. If this assumption is granted, then continuous creationists can avoid Edwards's thesis in one of two ways. The first and simplest is to simply drop the temporal condition from our understanding of creation *ex nihilo*. In other words, the strategy is to modify our idea creation *ex nihilo* so that it carries no connotation of newness: God's creating x at t is understood simply in terms of God's causing x to exist at t , irrespective of whether or not x existed at times prior to t . Since there is nothing obviously incoherent about the claim that God repeatedly causes the same entity to exist, there is nothing obviously incoherent about continuous creation given such a definition of creation. Quinn adopted this strategy in his earlier papers on continuous creation, where he drew no distinction between the acts of creation and conservation.²

However, as we noted in Chapter Two, this first strategy runs counter to our linguistic practice. Our intuitive idea of creation *does* carry the connotation of *newness* and, by the same token, our intuitive idea of conservation carries the connotation of *non-newness*. Thus, in his final essay on the subject Quinn chose to supplement his axiom, (CC), with the following definitions³:

(Cr) *God creates x at t = def. God's willing that x exists at t brings about x 's existing at t , and there is no t' prior to t such that x exists at t' .*

(Co) *God conserves x at t = def. God's willing that x exists at t brings about x 's existing at t , and there is some t' prior to t such that x exists at t' .*

² See Quinn (1983) and (1988).

³ Quinn (1993), p. 598.

(Cr) retains the temporal condition for creation, and so it implies that God can create an entity only once. And (Co) introduces a complementary temporal condition for conservation, such that an entity can be conserved only if it has existed previously. Thus, on these definitions, creation and conservation have entirely distinct extensions. Nevertheless, the acts of creation and conservation differ only extrinsically; the intrinsic nature of both acts is simply that of *causing something to exist*, and so it still seems appropriate to consider the later theory to be a version of continuous creation (even though, strictly speaking, it is a theory according to which God creates once and then continuously conserves).

When it comes down to it, the differences between Quinn's two approaches are purely verbal. Although they differ over how we speak about what God does, they are in complete agreement about how to describe what God does. God simply causes the existence of things, and for enduring continuants, God does so repeatedly at each moment of their existence. However, a number of critics have remained unconvinced that Quinn's solutions really resolve the underlying problem. In the following section I will defend Quinn's position against several such criticisms.

II-C. Objections and Replies

II-C-1. The Skeptical Questions Objection

As the name suggests, this objection is put in the form of a series of questions which are, presumably, supposed to reveal something problematic about Quinn's solutions. William Craig, for example, poses the following queries:

Is it even coherent to affirm that God creates a persistent entity anew at every instant? If at every *t* God creates *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 re-created each instant out of nothing rather than a numerically distinct, but similar subject?⁴

And William Vallicella echoes Craig's concerns, adding some questions of his own:

If God re-creates an individual instant by instant out of nothing, as opposed to operating upon an individual that already exists, then 'its' being or existence is new at each instant. How then can 'its' identity fail to be new at each instant? How can it fail to be a different, though perhaps qualitatively indiscernible individual, at each instant?⁵

For all of their rhetorical skepticism, I do not think there is much substance to Craig and Vallicella's objections. Indeed, I think Quinn could justifiably complain that their questions are posed in a misleading and perhaps even question-begging fashion. For example, Craig asks whether it is "even coherent to affirm that God creates a persistent entity anew at every instant," and Vallicella represents Quinn as saying that God "re-creates an individual instant by instant." But does Quinn actually claim that God "re-creates" or "creates anew" at each instant? The answer depends, of course, upon which of Quinn's essays (and hence, which of his two strategies for avoiding Edwards's thesis) we are considering. As I explained above, in his earlier essays, Quinn divorced any connotation of *newness* from the idea of creation: as it is defined in these essays, to create *x* is simply to cause *x* to exist. When he assumes this definition, Quinn does affirm that God repeatedly creates a persistent entity at every instant, although I think he would prefer to avoid the language of creating *anew* for fear that the connotation of *newness* would shift from God's action to its object. By contrast, in Quinn's later essay, where he adopts a definition of creation that *does* imply newness, (Cr), he no longer affirms that

⁴ Craig (1998a) p. 184.

⁵ Vallicella (2002) p. 189.

anything is repeatedly *created*; rather, he affirms that they are created once, and then repeatedly *conserved* (and conservation is explicitly divorced from any connotation of newness).

The point is that the choice of words is crucial. By posing their questions in terms of “re-creating” or “creating anew,” Craig and Vallicella appeal to our tendency to associate creation with newness in order to make Quinn’s position sound nonsensical. But their rhetorical questions seem far less compelling when they are restated in more neutral terms. For example, I think Quinn could have no complaint against the following rendering of Craig’s question: *is it even coherent to affirm that God repeatedly causes a persistent entity to exist at every instant?* But of course, when it is put that way, it loses its rhetorical force. It is far from obvious there is anything incoherent about saying that God repeatedly *causes* the same thing to exist. Of course, I do not know how to *prove* that it *is* coherent, but I do not see why I should have to. The burden lies with those who contend that it is incoherent to identify and show us the contradiction. Skeptical questions alone are not enough.

II-C-2. The Nature of Continuants Objection

Vallicella has offered another criticism that purports to explain why the idea of repeatedly causing the existence of a continuant is incoherent. He argues that if we consider the nature of continuants, we will see that they are *self-conserving* and thus have no need of divine conservation. If that is right, then Quinn’s theory of continuous creation

must be mistaken, for it claims that *God* is the total and exclusive cause of the continued existence of everything.⁶

But what is it about continuants that leads Vallicella to conclude that they are self-conserving? When I introduced endurantism at the beginning of Chapter Four, I characterized continuants as being *wholly present* at each moment at which they exist and, coming at the point from a different direction, as having no temporal parts. Unlike temporal parts and the worms composed of them, continuants are capable of existing, in their entirety, at more than one moment. According to Vallicella, these characterizations reveal that continuants are “existentially complete” in some way that is incompatible with their being externally conserved. He writes,

[I]f God conserves a continuant, His conserving activity must be directed to the continuant as a whole and not to its temporal parts. But this is impossible to make sense of. For as soon as continuant S exists, it exists as a whole. Thus as soon as God creates S, S exists as a whole, which is to say that all God has to do to keep S in existence is to (1) refrain from annihilating S, and (2) arrange S’s empirical environment in a propitious manner. . . . for continuants the metaphysical ‘default setting’ is existence, not nonexistence. Thus, there is simply no need for divine conservation of continuants. If there are any continuants, they are self-conserving.⁷

⁶ Vallicella actually raises the objection as a criticism of Craig’s agent-patient theory of conservation (which I critiqued in chapter three), but it is equally germane to Quinn’s *ex nihilo* theory. I should also note that Vallicella’s claim about the nature of continuants does not *by itself* entail the falsehood of Quinn’s theory. Suppose that continuants are naturally self-conserving as Vallicella suggests, but that God somehow hinders them from conserving themselves in order to ensure the totality and exclusivity of his own contributions. In that case, Quinn’s theory would still be true even though continuants have no need of conservation. However, I shall simply ignore such ad hoc possibilities. If we assume (a) that the persistence of continuants is not overdetermined, and (b) that God does not somehow prevent continuants from conserving themselves, then Vallicella’s claim that continuants are self-conserving does entail the falsehood of Quinn’s theory.

⁷ Vallicella (2002) p. 193. The fact that Vallicella directs the objection against Craig’s agent patient theory explains why he speaks of God’s conserving activity as being “directed to the continuant.” Quinn’s *ex nihilo* theory, which I have been defending, rejects this conception of conservation, but Vallicella’s criticism does not depend upon

If this is right, then it certainly poses a problem for our attempt to reconcile continuous creation with endurantism and its continuant ontology.

But why exactly is it impossible to make sense of God's conserving a continuant as a whole? Vallicella seems to think that the fact that a continuant "exists as a whole" entails that it will continue to exist without any help, but it is not at all clear why. As endurantists use it, the description "exists as a whole" applies to entities at specific moments and, by itself, says nothing about whether, or under what conditions, that entity will continue to exist as a whole at later moments. Suppose that our fundamental particle, Speck, exists as a whole right now. According to Vallicella, this fact somehow entails that Speck will continue to exist at subsequent moments, unless something actively *prevents* it from doing so (e.g. if God annihilated it). But why should we think that? I grant that the supposition that Speck will continue unless actively prevented is not *inconsistent* with endurantism. It is a supposition an endurantist could consistently accept; indeed, endurantists who are atheists or deists perhaps *should* accept it as the best explanation of why continuants do in fact continue. But I see no reason to think that endurantism *entails* this supposition. Endurantists are committed only to saying that presently existing continuants are *capable of* continuing to exist at later times (i.e. that their continuing is a *possibility*); they are not committed to saying that they *must* or

the point. To apply the quoted passage more explicitly to the *ex nihilo* model, the first sentence could simply be revised to say that God's "conserving activity must [bring about the existence of] the continuant as a whole and not [of] its temporal parts." The rest of the argument could be stated precisely as it is.

necessarily will continue unless actively prevented from doing so as Vallicella seems to suggest.⁸

Have I perhaps misunderstood Vallicella's reasoning? Here is a way of reading him that seems to do a better job of relating his premises to his conclusions. Perhaps Vallicella takes the claim that continuants are *capable of* existing at more than one time to mean that continuants have something like an *intrinsic causal capacity of active self-preservation*. That would lend support to the conclusions he draws: if continuants had such a capacity, then they would presumably continue on their own unless something intervened, just as Vallicella says. However, if that is how Vallicella reasons, then I think he is smuggling in assumptions that are not at all essential to endurantism. This causal-capacity interpretation of what it means for an individual to be "*capable of* existing at more than one time" is surely much stronger than endurantism requires. All endurantism needs is a weaker modal interpretation such as: a continuant is *capable of* existing at more than one time if and only if it is *possible* that it exist at more than one time. Furthermore, this modal interpretation is compatible with the assumption that continuants have no intrinsic powers of self-preservation and depend entirely upon something else for their continued existence. That is, there is nothing inconsistent about the following position: a presently existing continuant is *capable of* continuing to exist at later times *and will in fact do so if and only if God causes it to*. Thus, I conclude that Vallicella's

⁸ Cf. Vallicella's own definition of continuants which says only that they are *capable of* existing as a whole at various times and not that they *must*. He writes: "A continuant, by definition, is (1) wholly present, present as a whole, at each time at which it exists, and (2) is metaphysically *capable of* existing at more than one time"; Vallicella (2002) p. 192, my emphasis.

Nature of Continuants objection also fails to demonstrate any inconsistency between endurantism and continuous creation.

So is there any good reason to worry that the moment-by-moment interpretation of continuous creation is incompatible with endurantism? In short, I am not aware of any compelling reason to think so.⁹ Those who wish to deny that it is possible for God to repeatedly cause the existence of the very same continuant bear the burden of demonstrating why it is not possible. But no compelling demonstration has yet been

⁹ A detailed summary and assessment of Vander Laan's (2006) recent discussion of persistence and conservation would require a lengthy digression, and in the end I do not believe it would significantly advance the present discussion. However, in lieu of a lengthy digression, perhaps some brief remarks are better than nothing. Vander Laan seems to think that not just worm theorists, but endurantists as well, should accept what he refers to as the *immanent-causation thesis*:

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. (p. 160)

Indeed, Vander Laan contends that because Quinn's theory of continuous creation is incompatible with the immanent causation thesis, it has difficulty distinguishing between God's continuously creating an enduring entity and God's creating a succession of instantaneous replacements. Those who affirm the immanent causation thesis can distinguish between persistence and replacement, at least in part, by pointing out that replacements are not immanent-causally connected to one another. But if continuous creation is true, the immanent causation thesis is never satisfied. So how, Vander Laan worries, can continuous creationists distinguish between these two genuine possibilities?

It seems to me that for endurantists, the answer is quite simple. According to endurantists, continuants maintain their identity over time in the strict sense of *identity*. Thus, what distinguishes between replacement and persistence is that the latter involves identity and the former does not. Identity, I believe, is primitive; it does not supervene upon or reduce to other more fundamental features of the world. So to demand a more informative account of what distinguishes between replacement and persistence seems to me to be a mistake. The immanent causation thesis may be plausible for worm theorists, who need to explain what unites *distinct* (i.e. non-identical) temporal stages as parts of a single temporally-extended persistent individual. However, I see no reason why endurantists (who have nothing *distinct* for immanent causation to unite!) should feel compelled to accept it.

offered: Quinn's defense of the moment-by-moment interpretation of continuous creation has thus far withstood criticism unharmed.

III. Conclusion

If the arguments of this chapter are correct, then theists are not forced to choose between continuous creation and persistence. One can consistently endorse both, and that is a welcome conclusion. However, in the process of defending this conclusion I have also defended a number of more specific conclusions that are a bit more surprising, and for some, perhaps a bit less welcome. I have argued that endurantism is the *only* theory of persistence that is an option for continuous creationists. Personally, I am quite happy with this conclusion because I prefer endurantism for independent reasons, but worm theory has gained a considerable following in recent years, so others may not welcome the conclusion as warmly. As I explained in Chapter Four, a property-causal version of worm theory would be a plausible option for continuous creationists *if* continuous creation can be reconciled with secondary causation. However, over the course of the next three chapters, we will see that the task of reconciling continuous creation and secondary causation is exceedingly difficult. Although I will not argue that the task is impossible, I will argue that the only promising approach to secondary causation is one that requires a continuant ontology.

PART III

Continuous Creation and Secondary Causes

[Efficacious qualities] are vain pretensions of human pride, chimerical productions of the ignorance of philosophers! . . . [T]hey have failed to discern the invisible operation of the creator, the uniformity of His conduct, the fecundity of His laws, the continuously present efficacy of His volitions . . . [T]he divine decrees are the indissoluble connections between all the parts of the universe, and the wondrous chain of the subordination of all causes.

- Nicholas Malebranche (1688, p. 121)

CHAPTER SIX

Continuous Creation and the Threat of Occasionalism

Thus far I have responded to two important objections to the doctrine of continuous creation. In Part I, I defended it against the charge that it fundamentally misconstrues the distinction between creation and conservation, and in Part II, I defended it against the charge that it is incompatible with persistence. In this and the following two chapters I will consider one last objection to the doctrine, one I consider more powerful and troublesome. The objection is that continuous creation entails a commitment to occasionalism, the unappealing view that there are no secondary causes. Put roughly, the idea is that a world continuously created by God is so saturated with divine causal activity that there simply is no room left for the contributions of secondary causes. According to occasionalism, the events we commonly identify as causes are in fact no more than the *occasions* upon which God, the only true cause, brings about various effects. Occasionalists have offered a variety of arguments in defense of their view, but the argument from continuous creation is generally regarded as their strongest. However, few contemporary philosophers of religion have paid this argument the careful attention it deserves. If continuous creation entails occasionalism, then theists are forced either to accept or reject both. That choice is not easy – at least not from the perspective of traditional theology – for the fact is that the traditional popularity of continuous creation is matched by the general *unpopularity* of occasionalism.

Thus, the argument that occasionalism follows from continuous creation can be viewed as an argument for occasionalism (as it was originally intended), or it can be turned on its head and treated as an objection to continuous creation. Although occasionalism has a small handful of proponents even today, it has always been an unpopular position accepted by only a small minority; moreover, I suspect that “unpopular” is too weak to capture most contemporary theists’ aversion toward occasionalism.¹ Many theists view occasionalism in much the same way that most philosophers of mind view epiphenomenalism: they are positions one wishes to avoid, that one would be embarrassed to espouse openly or be revealed to be committed to.

The comparison between epiphenomenalism and occasionalism is fitting because the two positions are embarrassing for similar reasons. Epiphenomenalists would have us believe that contrary to all appearances mental causation is simply an illusion; similarly, but even more radically, occasionalists would have us believe that *all* secondary causation – mental *and* physical – is an illusion. While it may seem pious to insist that God is the only true cause, the apparent cost is that God’s creation is reduced to little more than a puppet show. Thus, van Inwagen dismisses occasionalism as “one of those high-minded philosophical deprecations of God’s works that come disguised as compliments to God’s person.”² Similarly, Philip Quinn describes occasionalism as “ugly” and “repugnant” and takes pains to try to show that his theory of continuous

¹ Contemporary proponents of occasionalism include McCann & Kvanvig (1991) and Vallicella (1996) and (1999). Although he is not a proponent of occasionalism, Freddoso (1988) offers a very sympathetic treatment of it, and Plantinga has admitted to finding it at least somewhat attractive; see Plantinga (2007) pp. 127, 129 fn. 51, and 133 fn. 55.

² Van Inwagen (1988) p. 216, n. 4.

creation does not commit him to it.³ I am myself more sympathetic towards occasionalism than most, although my sympathy is born more from a fascination with the arguments offered in support of the doctrine than from a fondness for their conclusion. The assertion that all secondary causation is illusory is quite discomforting, and I agree with those who wish to avoid it, although I shall wait to discuss my reasons for this until the Conclusion. For now, I will simply assume that being committed to occasionalism is a bad thing and so I will treat the argument as an objection to continuous creation. My goal in this chapter is simply to clarify the problem. In section I, I will introduce what I refer to as “pure” or “unrestricted” occasionalism and briefly discuss its relationship to the varieties of occasionalism that were popular among the Cartesians. Then, in section II, I will examine Malebranche’s continuous creation argument for occasionalism, presenting it in a way that reveals its relation to Quinn’s theory of continuous creation.

I. Pure Occasionalism and Historical Occasionalisms

Although Nicholas Malebranche (1638-1715) is history’s most prominent occasionalist, he was by no means its first or last noteworthy proponent. Long before its culmination in Malebranche, occasionalism was defended by medieval philosophers such as al-Ghazali (1058-1111) and Gabriel Biel (1425-1495) and criticized by the likes of Thomas Aquinas (1225-1274) and Francisco Suarez (1548-1617).⁴ And among

³ See Quinn (1988). He describes occasionalism as “ugly” and “repugnant” on pp. 72, 73. I will discuss his attempts to show that he is not committed to occasionalism in Chapter Eight.

⁴ For helpful discussions and further references see Fakhry (1958); Freddoso (1988); Sorabji (1983) ch. 19; and Nadler (1996). Richard Frank denies that al-Ghazali was an occasionalist; see Frank (1992) p. 37 and Frank (1994) esp. pp. 42-7, 86-91.

Descartes's followers, Malebranche's occasionalism was preceded by that of lesser known Cartesians such as Louis de la Forge (1632-1666), Claude Clerselier (1614-1684), Geraud de Cordemoy (1626-1684), and Arnold Geulincx (1624-1669), not to mention its roots in Descartes's own writings.⁵ Moreover, Malebranche was followed by such notables as Berkeley (1685-1753) and Jonathan Edwards (1703-1758).⁶ Nevertheless, Malebranche's prominence is well-deserved, for his writings contain the most thorough, consistent, and unambivalent defense of occasionalism. His presentation of the argument from continuous creation to occasionalism, which we will examine below, is no exception.

For present purposes, I will take occasionalism to be the view that God is the sole and total cause of *everything* that occurs in nature; in other words, I will assume that occasionalism involves the rejection of *all* secondary causation. I stress the universal scope of the doctrine in part to combat the common misconception that occasionalism, at least in its Cartesian manifestation, was nothing more than an ad hoc attempt to rescue

⁵ There is a great deal of debate concerning Descartes's views on causation and their relation to the explicit occasionalism endorsed by many of his followers. See for example Clatterbaugh (1999) ch. 2; Loeb (1981) pp. 210-222; and Garber (1987) and (1993).

⁶ The exact nature of Berkeley's relationship to Malebranche and occasionalism is a complex and debated issue. Berkeley tried to distance himself from Malebranche. Moreover, he clearly seemed to think that a mind can actively bring about some changes in itself, so he was not what I will refer to below as a thoroughgoing or pure occasionalist. But Berkeley is often interpreted as holding that the *only things* minds can actively bring about are certain kinds of changes within themselves, and that all other alleged causal interactions should be analyzed along occasionalist lines. For helpful discussions of Berkeley's view, see the discussions in Bennett (2001) v. II, pp. 165-9 and Pitcher (1981). Edwards has traditionally been interpreted as a thoroughgoing occasionalist, although Lee (2000) has recently offered an influential challenge to this view. For a defense of the traditional interpretation of Edwards in response to Lee's criticisms, see Crisp (2003).

substance dualism from the embarrassment of explaining how substances as different as immaterial minds and material bodies can act upon each other. According to this popular myth, certain Cartesians resolved this difficulty by maintaining Cartesian dualism without the interactionism, appealing to constant divine interventions to explain away the appearance of interaction between mind and body. This story has been exposed as a fiction that fundamentally misconstrues the scope of occasionalism, as well as its underlying motivations and justifications. Most of the Cartesian occasionalists denied that there is any special problem of mind-body interaction, insisting that causal interactions between material bodies are no less problematic than interactions between minds and bodies.⁷ To be sure, occasionalism does dispense of dualistic interaction by replacing it with constant divine interventions, but it also dispenses of interactions between bodies in precisely the same way. Just as occasionalism claims that God brings about appropriate mental events on the *occasions* of various bodily events and appropriate bodily events on the *occasions* of various mental events, it also claims that God brings about appropriate physical events on the *occasions* of other physical events. For example, God (not the rock) breaks the window on the *occasion* of their collision; God (not the helium) causes the balloon to rise on the *occasion* of the helium's presence in the balloon; and so on. Thus, occasionalism is better understood and assessed as a

⁷ Indeed, since nearly all of the occasionalists denied that material bodies can act upon other bodies, they would have remained occasionalists even if they had rejected dualism in favor of a materialist account of the mind. For a powerful critique of the myth that occasionalism was a response to the problem of mind-body interaction see Nadler (1997). According to Nadler, Antoine Arnauld is the sole Cartesian who turned to occasionalism as an ad hoc solution to the mind-body problem; see Nadler (1995b) and (1997) p. 94. However, Watson (1987, p. 101) categorizes Arnauld as an interactionist.

radical theistic philosophy of nature defended on the basis of much broader theological and philosophical concerns.

However, lest I simply trade one historical misconception for another, I must acknowledge that few of the Cartesian occasionalists would have agreed with the wholly unrestricted or “pure” version of occasionalism I have proposed to consider in this chapter. For example, if Nadler’s interpretation is correct, Louis de la Forge held minds to be active causes and restricted his occasionalism to interactions between material bodies.⁸ Moreover, Nadler suggests that some such “limited employment of occasionalism . . . is the rule rather than the exception among the Cartesians.”⁹ Indeed, even Malebranche, who is generally understood to be a purely unrestricted occasionalist, sometimes appears to grant rather limited causal powers to minds in his attempts to preserve their freedom.¹⁰ Alfred Freddoso goes so far as to suggest that pure, unrestricted occasionalism has never had a significant advocate: “no important occasionalist has ever in fact intended to deny that there is such a thing as creaturely free choice *or that such*

⁸ See Nadler (1993b) and (1998) for the evidence supporting this interpretation, as well as references to alternative interpretations. Watson (1987) seems to suggest at one place that la Forge was an occasionalist about mind-body interactions (see p. 86), but at other places Watson seems to deny that la Forge was an occasionalist at all (e.g. pp. 101 and 174).

⁹ Nadler (1993b) p. 73.

¹⁰ See, for example, Malebranche (1675) pp. 4, 547, and 669. Malebranche’s account of freedom and its relation to his occasionalism present difficult interpretive issues. Louis Loeb understands Malebranche to be a restricted occasionalist, the mind’s capacity to form volitions being the sole exception to his otherwise unrestricted occasionalism; see Loeb (1981) pp. 205 ff. However, most interpreters see Malebranche as attempting to offer an account of freedom consistent with an entirely unrestricted occasionalism, although it is generally doubted that he succeeds. For helpful discussions see McCracken (1983) pp. 105-10; Schmaltz (1996) ch. 6; and Kremer (2000).

free choice involves a genuine active causal power to produce effects.”¹¹ Freddoso may very well be right to insist that none have intended to deny freedom, although I am somewhat more doubtful of his further claim that none have intended to deny that freedom involves genuine active causal power. Nevertheless, the fact that he makes this claim is symptomatic of the complexity involved in the historical picture.

Thus, from a purely historical perspective my unrestricted definition of occasionalism may be a gross oversimplification. At the very least, it certainly flouts Nadler’s wise advice that “we should be very careful about any general claims we may be tempted to make about ‘the occasionalists.’”¹² But my primary concerns in this chapter are conceptual rather than historical, and so, although our discussion will profit greatly from being historically informed, I shall concentrate only upon those historical details that promise to be conceptually illuminating. It seems to me that the various forms of impure or restricted occasionalism fail to meet this requirement.

One reason why these impure occasionalisms are of little interest for our purposes is that they generally presuppose substance dualism. The Cartesians’ dualist ontology allowed them to distinguish four general types of causal interaction between substances: a mind acting upon another mind, a body acting upon another body, a mind acting upon a body, and a body acting upon a mind.¹³ Although an occasionalist account of interactions between two bodies was fairly standard among the Cartesians, they were far more divided

¹¹ Freddoso (1988) p. 82, my emphasis.

¹² Nadler (1993b) p. 73.

¹³ In addition to these four varieties of *transeunt causation*, the Cartesians could obviously distinguish two types of *immanent causation* as well: a body acting upon or causing some change in itself and a mind acting upon or causing a change in itself.

over whether the occasionalist analysis should be extended to other types of interactions and, if so, which ones. As a result, they defended a variety of impure occasionalisms which can be differentiated based upon which types of interaction are and which are not analyzed in occasionalist terms. But of course, such distinctions are useless to those who reject substance dualism, and since dualism has fallen largely out of favor in the last half century or so, the majority of contemporary philosophers will find them to be of no more than historical interest. Contemporary materialists, whose ontology has no place for immaterial minds, are unlikely to find these varieties of restricted occasionalism particularly illuminating.

But the general decline of substance dualism is not by itself an adequate justification for ignoring impure occasionalisms here. After all, this is an essay in the metaphysics of theism, and although dualism has lost ground with theists as well as non-theists, its fall from grace has been much less pronounced among theists.¹⁴ I suspect that at least some theistic dualists would be less opposed to occasionalism if it could be restricted so as not to extend to the choices and actions of human agents. In other words, some contemporary theists may be very interested to know whether such restricted forms of occasionalism are defensible.

¹⁴ I do not mean to suggest that dualism's decline among theists has been insignificant. Dean Zimmerman recently observed that "at present there seem to be more Christian philosophers defending materialism . . . than dualism—at least in print"; see van Inwagen & Zimmerman (2007) p. 2. Nevertheless, I am doubtful that tallying recent publications in defense of these positions will accurately reflect the level of support for these positions among Christian philosophers. I suspect that at least part of the reason that Christian materialism has been getting more attention is that it is still a relatively new (and controversial) position. Moreover, I do not think it is an accident that more theists than non-theists are still attracted to dualism; Plantinga (2007) argues convincingly that many of the standard objections to dualism should have little purchase on those committed to Christian theism.

However, if the general decline of dualism is not a sufficient reason for ignoring restricted occasionalisms, the question of their defensibility is. It is one thing to note that some of the Cartesians made exceptions to their occasionalism, and another thing entirely to show that such exceptions can be justified. Many of the very arguments the Cartesians appealed to in defense of an occasionalist analysis of one kind of interaction seem to apply with equal force to other kinds of interaction. Malebranche's continuous creation argument is a case in point. Malebranche argues that if God continuously creates a material body, then it is impossible for anything other than God to cause any of that body's features. It is a curious fact that Malebranche never explicitly states the argument using a mind as his example instead of a body, but there is nearly unanimous agreement among his interpreters that there is no legitimate reason for him not to do so. Nothing in the argument seems to depend upon any differences between minds and bodies, and so we have every reason to believe that it applies equally to both.¹⁵ Thus, as I examine Malebranche's argument below, I will assume that it is intended to establish occasionalism in the pure, unrestricted sense.

¹⁵ To my knowledge, Pessin (2000a) is the only interpreter who disagrees with this assessment. However, as I explain in note 26 below, I find Pessin's interpretation of Malebranche's argument to be highly dubious. The context in which Malebranche presents the argument in the *Search after Truth* seems to me to suggest that he took it to apply to minds as well; see Malebranche (1675) pp. 551-2. Nadler comments: "Malebranche, interestingly, never explicitly formulates an argument against the causal efficacy of minds using claims about divine conservation, as he does with bodies. But he clearly did believe that the doctrine of divine conservation leads to the same conclusions in the mental realm as it does in the realm of bodies"; Nadler (1998) p. 231, fn. 45; cf. Nadler (2000b) pp. 126-8; Loeb (1981) pp. 207-8; and Schmaltz (1996) pp. 218 ff. Nadler (1998) argues forcefully that la Forge's affirmation of the soul's activity is inconsistent with his endorsement of the argument that continuous creation implies occasionalism in the realm of bodies.

II. Malebranche's Continuous Creation Argument

Although Malebranche offers at least four distinct arguments for occasionalism,¹⁶ interpreters generally regard his continuous creation argument as the most powerful. Somewhat surprisingly, Malebranche makes only a cursory mention of the argument in *The Search after Truth*.¹⁷ Yet its pivotal role in the *Dialogues on Metaphysics and Religion* suggests that Malebranche himself regarded it as his most forceful argument. In order to fully understand the argument and the crucial role it plays in the dialectic, it will be helpful to briefly consider its immediate context.

When Theodore (Malebranche's spokesperson in the dialogues) tries to convince the reluctant Aristes of the truth of occasionalism, his first line of argument is based not upon the nature of continuous creation, but rather upon the nature of contingent

¹⁶ See Nadler (1997) pp. 80-6.

¹⁷ Nadler (1997) says that "the argument does not appear in the *Search* at all" (p. 84, fn. 27), but this is a mistake. The argument does appear there, albeit in a rather condensed form and in a passage far removed from Malebranche's primary discussions of occasionalism; see Malebranche (1675) pp. 551-2.

Interestingly, Louis de La Forge offered a very similar argument more than a decade before the publication of the *Search after Truth*; La Forge (1664) writes,

I also claim that there is no creature, spiritual or corporeal, which can cause change in it or in any of its parts, in the second moment of their creation, if the Creator does not do so himself. Since it was He who produced this part of matter in place *A*, for example, not only must he continue to produce it if he wishes it to continue to exist but also, since he cannot create it everywhere or nowhere, he must put it in place *B* himself if he wishes it to be there. For if he put it anywhere else there is no force capable of removing it from that location. (p. 147)

He concludes that "it is God who is the first, universal, and total cause of motion" (p. 147), and although he later allows that there is some sense in which bodies and minds cause motions, the sense of causation he describes is that of Malebranche's occasional causation.

substances. At least for material things, Malebranche thinks that the most direct path to occasionalism is simply through contemplation of their nature.¹⁸ Theodore contends that the idea of matter, or extension, includes nothing but “the passive faculty of receiving various figures and movements.”¹⁹ Since the idea of matter includes no active powers, matter is a purely passive substance; it can be acted upon, but it cannot move itself nor can it act upon a mind or another body. Theodore urges Aristes, “Contemplate intelligible extension, the archetype of bodies. . . . Do you not clearly see that bodies can be moved, but that they cannot move themselves?”²⁰ But in spite of Theodore’s urgings, Aristes remains unconvinced. He concedes that *some* material bodies are entirely passive, but questions whether this is true of *all* bodies.

Of course, Theodore (i.e. Malebranche) thinks that the idea of bodies possessing causal powers is nonsense, but instead of pressing the point he decides to take a different tack and introduces the continuous creation argument – an argument based not upon the nature of created substances, but upon the *nature of the creation* of those substances. There are several reasons to think that Malebranche considers this continuous creation argument to be his strongest argument. One is simply that it is the argument Theodore turns to when his first argument fails to convince Aristes. Moreover, it is also the

¹⁸ In the *Dialogues*, Malebranche states the argument only in terms of material substance. Other passages seem to suggest that Malebranche would apply the same sort of argument to all created substances, material and immaterial; see for example, Malebranche (1675) p. 658. However, Malebranche’s views on the mind and what lies within its power are not altogether clear. Although it often seems as though he thinks the mind has no powers whatsoever, some passages seem to attribute to the mind some very limited powers to produce effects within itself – e.g. Malebranche (1675) p. 669.

¹⁹ Malebranche (1688) p. 106.

²⁰ Malebranche (1688) p. 110.

argument to which Aristes finally capitulates. More importantly, it is an argument which purports to demonstrate the truth of occasionalism even if Aristes' non-occasionalist assumptions are granted at the outset. Theodore essentially argues that even if we grant that bodies possess all of the Schoolmen's occult powers, God's continuous creation of those bodies would prevent them from ever exercising their powers. Thus, occasionalism would be an unavoidable consequence of continuous creation even if creatures did have causal powers.

The argument unfolds over the course of several pages of dialogue, but Theodore offers the following summation:

Creation does not pass, because the conservation of creatures is – on God's part – simply a continuous creation, a single volition subsisting and operating continuously. Now, God can neither conceive nor consequently will that a body exist nowhere, nor that it does not stand in certain relations of distance to other bodies. Thus, God cannot will that this armchair exist, and by this volition create or conserve it, without situating it here, there, or elsewhere. It is a contradiction, therefore, for one body to be able to move another. Further, I claim, it is a contradiction for you to be able to move your armchair. Nor is this enough; it is a contradiction for all the angels and demons together to be able to move a wisp of straw. The proof of this is clear. For no power, however great it be imagined, can surpass or even equal the power of God. Now, it is a contradiction that God wills this armchair to exist, unless He wills it to exist somewhere and unless, by the efficacy of His will, He puts it there, conserves it there. Hence, no power can convey it to where God does not convey it, nor fix nor stop it where God does not stop it, unless God accommodates the efficacy of His action to the inefficacious action of His creatures.²¹

In other words, if God is continuously creating everything, there is simply nothing left over for secondary causes to do. Suppose, to use Malebranche's hyperbolic example, that all of the angels and demons joined forces to attempt to move a piece of straw. Since God is creating the straw at every moment, and since the act of creation requires creating the

²¹ Malebranche (1688) pp. 115-6.

straw in some specific location, what contribution could the angels and demons possibly make? They must either (a) cause the straw to be located somewhere *other than* where God creates it or else (b) cause it to be located *where* God creates it. But since God's volitions are necessarily efficacious, neither option seems to make any sense. Since the powers of finite beings cannot outstrip the power of an omnipotent being, it is impossible for the angels and demons to cause the straw to exist somewhere *other than* where God puts it. And since God's volition is sufficient by itself to cause the straw to exist where he wills, there is nothing left over for the angels and demons to contribute to its existing there.²² Thus, even granting for the sake of argument that angels, demons, or material bodies possess occult powers, the doctrine of continuous creation entails that they could never produce any effects. And since it is pointless to posit powers that can never be exercised, Malebranche concludes that we must rid ourselves of the opinion that creatures have powers and concede that they are entirely passive.²³

²² One possibility that Malebranche, to my knowledge, never explicitly discusses is that secondary causes are overdetermining causes. Perhaps the possibility never even occurred to him, but I suspect that the more likely explanation of his silence is that he considered possibility too absurd to merit discussion. A recurring theme in Malebranche is that God's infinite wisdom requires that God do things in the simplest possible way. The suggestion that God creates a world full of occult powers that are mere overdetermining causes would surely violate Malebranche's conception of divine wisdom.

²³ Freddoso (1988) draws a distinction between a *No-action Theory* of occasionalism, which affirms that creatures have causal powers but denies that they can ever exercise them, and a *No-nature Theory* of occasionalism that denies that creatures have any causal powers. Since the continuous creation argument grants at the outset that creatures have causal powers, what it establishes, strictly speaking, is only the *No-action Theory*. But Theodore clearly expects Aristes (and Malebranche expects his readers) to reject the notion of causal powers that can never be exercised and accept the *No-nature Theory*.

Malebranche's continuous creation argument is not highly complex, but neither is it quite as simple as it is sometimes portrayed. Andrew Pessin (2000a) has rightly emphasized that continuous creation per se does not entail occasionalism; in order to reach that conclusion, Malebranche must supplement continuous creation with some other crucial principles and assumptions. This is an important observation because it broadens the possible options for escaping Malebranche's conclusion. Thus, we would do well to take a closer look at Malebranche's argument, relating it to the account of creation and conservation defended in the previous chapters and making explicit what additional premises it requires.

Recall that Quinn's theory of continuous creation, which we have taken as our starting point, consists of the following axiom and definitions:

- (CC) *Necessarily, for all x and t , if x is contingent and x exists at t , then God's willing that x exists at t brings about x 's existing at t .*
- (Cr) *God creates x at $t = \text{def.}$* God's willing that x exists at t brings about x 's existing at t , and there is no t' prior to t such that x exists at t' .
- (Co) *God conserves x at $t = \text{def.}$* God's willing that x exists at t brings about x 's existing at t , and there is some t' prior to t such that x exists at t' .

As I explained in Chapter Two, Quinn characterizes the *bringing about* relation used in his theory as involving *totality*, *exclusivity*, *activity*, *immediacy*, and *necessity*. I think Malebranche would agree with this characterization of divine action, and so it will be both appropriate and convenient to exposit his argument in terms of Quinn's theory and the causal relation it employs.

On the face of it, (CC) says nothing even close to occasionalism. (CC) affirms that God is the total and exclusive cause of the existence of all contingent things at all times, and thus it clearly entails that secondary causes do not bring about the *existence* of

anything.²⁴ But occasionalism claims that secondary causes do not bring about *anything at all* – that is, in addition to denying that secondary causes bring about the *existence* of anything, occasionalism also denies that secondary causes make any contributions to *properties* or *states* of things. This is clearly a stronger claim, and it is far from obvious that (CC) is in any way committed to it.

However, I think the intuitive connection between continuous creation and occasionalism is easier to see if we offer a more positive characterization of occasionalism. Just above I characterized it as the view that secondary causes do not bring about anything at all. But implicit in this denial is a positive characterization that is more helpful. What occasionalism *affirms* is that God is the total and exclusive cause of everything – i.e. not only of the *existence* of all things, but also of every *property* or *state* of all things. Thus, following McCann and Kvanvig, we can understand occasionalism as the position which affirms the conjunction of (CC) and (O), where *F* is a variable ranging over properties,

- (O) *Necessarily, for all x , t , and F , if x is contingent and x is F at t , then God's willing that x is F at t brings about x 's being F at t .*²⁵

This way of understanding occasionalism highlights the natural connection between it and continuous creation. What Malebranche claims is that God cannot be the total and exclusive cause of the *existence* of all things without also being the total and exclusive cause of all their *properties* – accepting (CC) commits us to (O) as well.

²⁴ Recall that we are restricting our discussion to fundamental particles. Thus, familiar acts such as “creating” a sculpture or building a house are to be understood simply as acts of *modifying preexistent things* and not, strictly speaking, as acts of bringing about the *existence* of anything new.

²⁵ McCann and Kvanvig (1991) p. 592.

In order to defend this claim, Malebranche needs some additional assumptions. (CC) entails, for example, that God's willing that I exist brings about my existence at this moment, but it certainly does not entail (not by itself, anyway) that my being seated at this moment is brought about by God's willing that I be seated. The inference from (CC) to (O) depends crucially upon the assumption that God cannot will that some contingent individual exist without willing that it exist with determinate properties. Malebranche makes this point using the example of a chair and its location: God cannot will that this chair exist without willing that it exist in some determinate place, be it here or somewhere else. Malebranche focuses on the properties of location and movement because they are so fundamental to his Cartesian conception of material bodies, but I do not think his point depends in any essential way upon any specific account of matter.²⁶ As

²⁶ Here I disagree with Pessin (2000a). Pessin points out that Malebranche occasionally suggests that there is some fundamental difference between God's conservation of bodies and of minds – the modes minds are created with are not “determinate” and “invincible” in the way that the modes of bodies are. Unfortunately, Malebranche does not clearly explain this difference. Pessin thinks the explanation is to be found in Malebranche's account of material bodies. In dialogue ten (Malebranche 1688, p. 184), Theodore explains the nature of material bodies as follows:

All the modalities of extension are and can be but shapes, configurations, observable and unobservable motion, in a word: relations of distance. Thus, an indefinite extension without motion, without change in the relations of distance between its parts, is but a huge mass of unformed matter. When motion is introduced into this matter and moves its parts in an infinity of ways, behold then an infinity of different bodies.

For Malebranche, one body is differentiated from everything else because its material parts maintain the same relations to one another, while their relations to other parts of matter change. Pessin takes it to be a consequence of this view of bodies that

what makes the *concept* of a given particular, token body *b* the concept of *that* specific body is precisely the information about the material state of motion. But if this information is internal to the concept, then . . . even

I understand it, his reasoning is perfectly general and is applicable regardless of what properties bodies are taken to possess. If Malebranche had thought that bodies have color properties, he would have insisted that in creating the chair, God must create it with determinate color properties – i.e. God must cause it to be either red or non-red, brown or non-brown, etc. It is a simple matter of the law of excluded middle that for any property and any given moment, either an individual has that property at that moment or it does not. Moreover, in the case of creation in the narrow sense (i.e. of bringing about the existence of a *new* entity *ex nihilo*), it seems obvious that it must be God who causes the individual to possess the properties it has. After all, if *t* is the first moment of *x*'s

God could not conceive of *b* without conceiving of the relevant state of motion, for it wouldn't be *b* of which He was conceiving (p. 424).

According to Pessin, this explains the difference between God's conservation of bodies and minds. Each of a body's properties or modes is essential to it, so God cannot will that *b* exist without willing that it possess each of those specific properties. But unlike bodies, which are not substances but rather modes of a substance, minds are distinct substances and their modes are not essential to them. Thus, God *could* will that a mind exist without willing that it possess a complete, determinate set of properties.

Although I am not sure why Malebranche sometimes suggests that there is an important difference between God's conservation of minds and bodies, it seems clear to me that Pessin's explanation is not satisfactory. Malebranche clearly held that motion is required to differentiate bodies within the plenum, but I do not see why Pessin thinks it follows that each of a body's particular modes is essential to it. Moreover, even if that inference is legitimate, I do not see any reason to think that *Malebranche* recognized or accepted it. On the contrary, Malebranche clearly does *not* appeal to such essentialism when he applies the continuous creation argument to bodies. When Theodore defends creation and conservation with determinate properties, he argues that God "cannot will that *this chair* exist, without at the same time willing that it exist *either here or there* and without His will placing it *somewhere*, since you cannot conceive of a chair existing unless it exists somewhere, either here or elsewhere" (Malebranche 1688, p. 112, my emphases). If Pessin's interpretation were right, Theodore should have said that God cannot will that *this chair* exist, without at the same time willing that it exist *here* and without His will placing it *here*: after all, for Pessin's Malebranche, if God had placed it *there* instead of *here*, it would not have been *this chair*. The fact that Theodore does not reason this way suggests that the argument does not depend upon the sort of radical essentialism Pessin attributes to Malebranche.

existence, then there was no opportunity prior to t for anything else to act upon x and cause it to possess the properties it has at t , and since God creates *ex nihilo*, x 's properties are not determined by the nature of any preexistent stuff out of which it is formed. The only viable explanation of x 's possessing the properties it has at t seems to be that God causes x to possess them – that is simply part of what is involved in God's creating x .

Thus, Malebranche assumes that when God creates a new individual, he must endow it with a complete, determinate set of properties – I will refer to this as the principle of *Creation with Determinate Properties*, abbreviated as (CrD). It can be stated more precisely as follows,

(CrD) *Necessarily, for all x and t , if x is contingent and God creates x at t , then for any property F , if x has F at t , then God's willing that x has F at t brings about x 's having F at t .*

In Malebranche's *Dialogues*, Aristes willingly grants this much, but he denies that occasionalism follows, arguing that "once the moment of creation has passed . . . [b]odies dispose themselves haphazardly, or according to the law of the strongest."²⁷ However, it is at this point that Theodore relies upon continuous creation, for as he tells Aristes, "if this moment [of creation] does not pass, then you are in a spot, and will have to yield."²⁸ That is, if God's act of conserving x is intrinsically indistinguishable from his act of creating x (as the continuous creation doctrine insists), then Aristes' acceptance of (CrD) commits him to an analogous principle of *Conservation with Determinate Properties*:

(CoD) *Necessarily, for all x and t , if x is contingent and God conserves x at t , then for any property F , if x has F at t , then God's willing that x has F at t brings about x 's having F at t .*

²⁷ Malebranche (1688) p. 112.

²⁸ Malebranche (1688) p. 112.

This premise clinches Malebranche's argument: (CC), (CrD), and (CoD) together entail (O). The implication of accepting these principles together with (CC) is that God is the cause not only of the existence of every contingent individual at every moment but also of every property possessed by those individuals at every moment. Thus, even if contingent individuals did have active causal powers, continuous creation leaves nothing behind for them to do.

In the next chapter, we will consider three strategies for resisting Malebranche's argument, but first I want to tie up one loose end. I noted in Chapter Two (section II-A) that taking medium-sized objects and artifacts to be primary objects of creation and conservation is problematic for a number of reasons, and I suggested that we would run into fewer problems if we stipulated that the only primary objects of creation and conservation are simple atomic particles. Given this stipulation, we can say that God creates and conserves composite entities such as chairs only in the sense that he creates and conserves the particles that compose them. While this stipulation sidesteps a number of problems, I do not believe it can help us to escape Malebranche's argument, for it seems evident that Malebranche's reasoning can be applied with equal ease to a chair or to the atomic particles that compose it. For each of those particles, Malebranche would insist that God must create and conserve it with a complete, determinate set of properties. Furthermore, since what is true of the chair at any given moment is determined by what is true of its parts at that moment,²⁹ God's continuous creation and conservation of the

²⁹ This strikes me as very plausible, in part because it is vague enough to accommodate several views. For example, it is compatible with a strong reductionist view according to which any property attributed to a chair is reducible to properties (and relations) of its

chair's particles leaves nothing for secondary causes to contribute. So Malebranche's continuous creation argument poses a threat to secondary causation regardless of whether the individuals God creates and conserves include composite entities or only simples.

parts. But it is also compatible with a view according to which a chair has emergent properties that non-reductively supervene upon the properties (and relations) of its parts.

CHAPTER SEVEN

Three Strategies for Avoiding Occasionalism

Pure occasionalism is the view that God is the sole and total cause of all that occurs – that there are no secondary causes. In Chapter Six we examined Malebranche's most powerful argument for occasionalism. According to Malebranche, occasionalism is an entailment of the doctrine of continuous creation, together with a few plausible assumptions. More specifically, continuous creation,

- (CC) *Necessarily, for all x and t , if x is contingent and x exists at t , then God's willing that x exists at t brings about x 's existing at t .*
- (Cr) *God creates x at $t = \text{def.}$* God's willing that x exists at t brings about x 's existing at t , and there is no t' prior to t such that x exists at t' .
- (Co) *God conserves x at $t = \text{def.}$* God's willing that x exists at t brings about x 's existing at t , and there is some t' prior to t such that x exists at t' .

and the principles of creation and conservation with determinate properties,

- (CrD) *Necessarily, for all x and t , if x is contingent and God creates x at t , then for any property F , if x has F at t , then God's willing that x has F at t brings about x 's having F at t .*
- (CoD) *Necessarily, for all x and t , if x is contingent and God conserves x at t , then for any property F , if x has F at t , then God's willing that x has F at t brings about x 's having F at t .*

together entail,

- (O) *Necessarily, for all x , t , and F , if x is contingent and x is F at t , then God's willing that x is F at t brings about x 's being F at t .*

Assuming that we wish to avoid occasionalism, the sensible next step is to consider our options for resisting Malebranche's argument. In this chapter I will explain and assess three different ways of attempting to reconcile continuous creation with secondary causation – causal overdeterminism, strong concurrentism, and weak concurrentism. Section I will provide a brief overview of these three strategies, and sections II-IV will examine each of them in greater detail. I will argue that causal overdeterminism and strong concurrentism are deeply problematic positions and that weak concurrentism is the most promising of the alternatives. However, weak concurrentism is certainly not without difficulties of its own – whether these difficulties can be overcome will be the subject of Chapter Eight.

I. An Overview of the Options

Since Malebranche's continuous creation argument is valid, any adequate strategy for resisting occasionalism will require rejecting or modifying at least one of its premises in order to block the inference to (O). The easiest, but also most extreme, solution is to simply abandon continuous creation and deny that contingent beings have any need of active conservation subsequent to their initial creation. Following general practice, I will refer to positions that take this way out as forms of *Deism*. Of course, there is a range of more specific positions that fit this general description. Just as we distinguished between pure and impure forms of occasionalism, we can also distinguish between pure and impure deisms. A pure, unrestricted deism would insist that subsequent to the initial creation of the world, God has remained wholly detached and uninvolved with it. God is, as the old analogy goes, like a clockmaker who initially set the world in motion and has

left it entirely to itself ever since. Impure forms of deism would agree that God does *generally* stand back and allow the world to continue on its own, but would insist that God can and sometimes does step in to influence things (perhaps answering prayers, performing miracles, preventing certain catastrophic evils, etc.).

Deism and occasionalism are extreme positions that traditional theists have generally wished to avoid. However, the challenge is to find some stable middle ground. As we have seen, (CC), (CrD), and (CoD) together entail (O); thus, any such moderate position will have to reject or revise one or both of (CrD) and (CoD). I will focus my attention here upon (CoD) rather than (CrD). Part of my reason for this is that (CoD) covers all but the very first moment of any individual's existence, and so it plays a more significant role in the discussion. But another reason is that (CrD) strikes me as an eminently plausible principle, and thus, I see little justification for modifying or rejecting it. It is exceedingly difficult to see how secondary causes could make any contribution to the features of individuals at the very first moment that God creates them, and so the only plausible explanation of why individuals have the properties they do at the moment of their creation seems to be that God creates them with those properties.¹ Thus, I will

¹ Peter van Inwagen (1988) would disagree. He suggests that God could issue indeterminate creative volitions; he believes, for example, that God could issue decrees of the form "let either *x* or *y* exist," leaving the specific outcome of such decrees entirely up to chance. If that is possible, then it would also seem to be possible for God to decree that a specific individual should come into existence, but leave the specific properties of that individual entirely to chance. And if *that* is possible, then (CrD) might be false.

I am not convinced that it really is possible for God to issue such indeterminate decrees, although I am not certain that it is impossible either. But even if it is a possibility, it is unclear why God would choose to play such a cosmic game of creative dice. van Inwagen supposes that a sort of Buridan's Ass situation might arise, in which God must choose between incompatible creative options about which God is indifferent. In such a situation, van Inwagen finds the suggestion that God might choose arbitrarily to be offensive, and so he prefers to think that God would simply issue indeterminate

assume that all of the positions we are discussing, even Deism, endorse (CrD). If we assume that God *creates* all individuals with determinate properties, then the question is whether God must *continue* causing them to exist in such a determinate way at subsequent moments. Once contingent individuals exist, can they causally interact with each other, or does God's continuous conservation of them preclude such interaction?

In the remainder of the chapter, we will carefully explore three strategies for making room for the contributions of secondary causes without rejecting (CC). *Causal overdeterminism* upholds a weakened version of the principle of conservation with determinate properties (CoD), but attempts to make room for secondary causes by denying that God's causal contributions are exclusive. In other words, the properties possessed by contingent individuals are causally overdetermined by divine and secondary causes. *Strong concurrentism* seeks to make room for more significant contributions by secondary causes. It too upholds a weakened form of (CoD), but in addition to denying that God's causal contributions are exclusive, it also denies that they are marked by totality. According to strong concurrentism, divine and secondary causes cooperate or concur with one another to bring about the properties of contingent individuals. Moreover, although their contributions are jointly sufficient to produce the effect, each is insufficient by itself. *Weak concurrentism* seeks to ensure an even more substantial role for secondary causes by simply rejecting (CoD) outright. Unlike strong concurrentism,

volitions and leave the outcome to chance (pp. 228-9). However, I do not share these intuitions. I find nothing particularly problematic about God's choosing arbitrarily between genuinely indifferent options. Fortunately, it is not necessary to settle the matter because it is not particularly relevant to our current question. We are concerned to determine whether it is possible for *secondary causes* to contribute to the properties possessed by individuals. Whether it is possible for the properties of individuals to be *uncaused*, left entirely to chance, has no bearing upon that question.

weak concurrentism endorses a sharp division of labor between divine and secondary causes: God's conservation of contingent individuals is generally limited to causing their *existence* (although this may require causing at least *some* of their properties), while secondary causes *by themselves* bring about at least many of the *properties* they possess. Table 1 on the following page highlights the fundamental points of agreement and difference among these three views along with the pure forms of occasionalism and deism. In sections II-IV we will examine each of the three intermediate views more closely.

TABLE 1

FIVE VIEWS ON THE CONTRIBUTIONS OF DIVINE AND SECONDARY CAUSES

	PURE OCCASIONALISM	CAUSAL OVERDETERMINISM	STRONG CONCURRENTISM	WEAK CONCURRENTISM	PURE DEISM
Does God bring about the <i>existence</i> and all of the <i>properties</i> of things at the first moment of creation?	YES	YES	YES	YES	YES
Does God bring about the <i>existence</i> of things at all subsequent moments?	YES	YES	YES	YES	NO
Does God bring about all of the <i>properties</i> possessed by things at subsequent moments?	YES	YES, but God's contributions are not generally marked by <i>exclusivity</i>	YES, but God's contributions are not generally marked by either <i>totality</i> or <i>exclusivity</i>	NO, although God may bring about at least <i>some</i> of their properties	NO
Do secondary causes contribute to the <i>properties</i> possessed by things at subsequent moments?	NO	YES	YES	YES	YES

II. Causal Overdeterminism

Quinn's *bringing about* relation, which I utilized in my presentation of Malebranche's continuous creation argument, is marked by the characteristics of totality, exclusivity, activity, immediacy, and necessity. That is a rather strong causal relation, although as a characterization of *divine* causation, it does seem intuitively plausible – after all, omnipotence seems to demand a pretty strong causal characterization. Nevertheless, if we wish to avoid occasionalism, we must consider whether such a strong characterization of divine causation is really necessary. It seems likely that we could carve out some room for secondary causes and hence prevent the inference to occasionalism if we judiciously subtracted from it.

Exclusivity is a case in point. This characteristic of *bringing about* stipulates that “what does the bringing about is the sole cause of what is brought about.”² Exclusivity is essential to Malebranche's argument because occasionalism claims not only that God causes everything that occurs, but also that God is the *only* (i.e. exclusive) cause of all that occurs. In other words, even if God's contributions are by themselves sufficient to cause every occurrence, occasionalism does not immediately follow. To get occasionalism, one must also rule out the possibility that some occurrences are causally overdetermined by secondary causes. Whether that possibility can be ruled out depends upon whether divine causation is marked by the characteristic of exclusivity.

A somewhat plausible case can be made for denying that exclusivity is an essential feature of divine causation. Omnipotence surely entails that God is *capable of being* an exclusive cause, but I see no reason to suppose that an omnipotent being must in

² Quinn (1993) p. 597; cf. Quinn (1988) p. 53.

fact always *be* an exclusive cause. Thus, a rather minimalist approach to modifying Malebranche's premises is to introduce a second causal relation that includes all of the characteristics of the standard *bringing about* relation, minus exclusivity – call this relation *bringing about*₁. (CoD) can then be replaced with (CoD₁),

(CoD₁) *Necessarily, for all x and t, if x is contingent and God conserves x at t, then for any property F, if x has F at t, then God's willing that x has F at t brings about*₁ *x's having F at t.*

This slight change blocks the inference from (CC) to (O). What follows now is,

(O₁) *Necessarily, for all x, t, and F, if x is contingent and x is F at t, then God's willing that x is F at t brings about*₁ *x's being F at t.*

But the conjunction of (CC) and (O₁) does not amount to occasionalism because (O₁) does not preclude the possibility that *x's being F at t* is causally overdetermined – caused both by God *and* by the contributions of secondary causes.

Unfortunately, although causal overdeterminism does carve out a place for secondary causes, this minimalist departure from Malebranche's view is a halfway house so uncomfortable that no thinker I am aware of has chosen to dwell in it.³ The role of secondary causes in the theory is too insignificant, utterly dwarfed by the still overwhelming role of divine causation. The problem is that even though God's causal contributions are not entirely exclusive, they are still characterized by totality – that is, God's contributions alone are sufficient for every effect. Furthermore, God's contributions are also necessary for the effect. After all, apart from God's conserving them, individuals would not exist, and hence no secondary causes could act upon them.

³ Gorham (2004) argues that Descartes accepted a limited form of overdeterminism according to which some events in the material world are caused by both God and minds. I am not sure whether this is the correct way to understand Descartes, but even if it is, Descartes can hardly be said to have been very explicit about adopting the view.

So it turns out that God's causal contributions are both necessary and sufficient for all of their effects, and that leaves the contributions of the purported secondary causes neither necessary nor sufficient. Depending upon how we understand causation, the idea of a cause that is neither necessary nor sufficient for its effect may not even make sense. But I do not wish to delve into the details of specific causal theories at this point,⁴ so I will set this concern aside. For now I simply want to raise the more modest objection that avoiding occasionalism by appealing to overdeterminism renders secondary causes objectionably superfluous.

As I have already said, causal overdeterminism is a position without any defenders (at least to my knowledge). Nevertheless, in order to clarify why it is so objectionable, let us consider what imaginary proponents of the view might say in its defense. Perhaps they would argue as follows:

You object that causal overdeterminism renders secondary causes superfluous. So what? That is a trivial observation. *Every* instance of causal overdeterminism is, by definition, a situation in which there is an overabundance of causes. Moreover, if you will ignore your worries about occasionalism for the moment, you surely must admit that there are many perfectly legitimate and familiar examples of causal overdeterminism. If I told you that the death of a criminal executed by a firing squad was causally overdetermined, you could not reasonably criticize my claim on the grounds that it would render some of the causes of his death superfluous. That would be no criticism at all. For one thing, it is essentially just another way of saying what I said. For another, it is *true*: the criminal's death *does* have an excess of causes. The firing squad simply illustrates the fact that there is nothing particularly objectionable about superfluous causes. So why should we care that overdeterminism renders secondary causes superfluous? They are causes nonetheless!

The answer to this challenge is that there are crucial differences between divine-secondary overdeterminism and unobjectionable examples like a firing squad. The

⁴ I will discuss several causal theories in Chapter Eight.

contributions of the members of a firing squad all stand on an equal footing in a way that divine and secondary causes do not. Given the presence of the other causes, each of the individual causes of the criminal's death is unnecessary for the effect; nevertheless, each is also sufficient to produce the effect *by itself*. Yes, they are all superfluous, but only *accidentally* so – only, that is, because several other causes happen to be present. But divine and secondary causes are not on an equal footing. The divine causes are not superfluous: take away the divine cause, and the secondary causes could bring about nothing because there would *be* nothing for them to affect. But take away a secondary cause, and things would still go precisely as they would if it were there. Thus, secondary causes are *essentially* superfluous, and while accidentally superfluous causes do not seem objectionable, essentially superfluous causes do. If a theory entails that overdeterminism is pervasive and unavoidable – the rule instead of the exception – considerations of simplicity suggest that something has gone awry.⁵

Ubiquitous overdeterminism is especially problematic on the assumption of theism. Why would a being of unsurpassable knowledge and wisdom bother to give creatures causal capacities if their causal contributions would never be necessary, always superfluous? As Stephen Schiffer put it, “it is hard to believe that God is such a bad engineer.”⁶ Malebranche, who always insisted that divine wisdom demands that God accomplish things in the simplest possible ways, could not have agreed more.

⁵ The rejection of pervasive or systematic causal overdetermination is a widely accepted assumption of the causal exclusion arguments discussed in the philosophy of mind. Lowe (2000) says that it “looks suspiciously ad hoc” (p. 572, n. 5) and Kim (1993) regards it as “absurd” (see pp. 280-1, 291, 354, and 360-1).

⁶ Schiffer (1987) p. 148.

Thus, although causal overdeterminism would allow us to maintain continuous creation without being *technically* committed to occasionalism, it is not surprising that it has lacked defenders. Overdeterminism is a defective strategy for resisting occasionalism because its secondary causes are nothing more than ad hoc extras. Any plausible account of the role of secondary causes must assign them a non-superfluous role, and that will require a more substantial modification of Malebranche's position.

III. Strong Concurrentism

A more popular strategy for avoiding occasionalism holds that God and secondary causes somehow work together to bring about effects. Secondary causes make a genuine, non-superfluous contribution, although their contributions would not be efficacious if God did not lend them his cooperation or *concurrence*. The chief challenge for concurrentist accounts is to explain what God's concurrence with secondary causes consists of. In this section and the next, we will consider two versions of concurrentism which I will refer to as *Strong* and *Weak Concurrentism*. Weak concurrentism, which we will examine in greater detail in section IV below, endorses a sort of division of labor for divine and secondary causes – they concur with each other by contributing to different aspects of the effect. Generally speaking, God's conservation of contingent individuals is limited to causing their *existence*, while secondary causes *by themselves* bring about at least many of the *properties* they possess. So the weak concurrentists' strategy for avoiding occasionalism is to reject the principle of Conservation with Determinate Properties (CoD). By contrast, strong concurrentism insists that God's concurrence with secondary causes is much more thoroughgoing. God not only causes the *existence* of

contingent individuals, but also cooperates with them in their specific causal interactions with each other. According to strong concurrentism, God *does* actively participate in bringing about the specific characteristics or properties of contingent individuals; however, God does not bring them about by himself but rather in cooperation with secondary causes. Thus strong concurrentists would uphold a version of (CoD), but the version they uphold will have to be even weaker than causal overdeterminism's (CoD₁). Whereas overdeterminists weaken the principle by subtracting the characteristic of *exclusivity* from the *bringing about* relation, strong concurrentists will have to subtract the characteristic of *totality* from it as well. Call the resulting relation *brings about*₂ and the corresponding principle (CoD₂).

A characterization of divine causation this weak may seem problematic: if God is omnipotent, how could God's causal contributions lack the characteristic of *totality* – i.e. how could they not be sufficient by themselves to bring about an effect? However, I think strong concurrentists can reply to this worry in essentially the same way that overdeterminists can reply to the worry about their weakened conception of divine action. Although God's omnipotence undoubtedly implies that God is *capable* of making causal contributions that are sufficient by themselves for their effects, it is hardly clear that omnipotence implies that God *must* always do so. It is conceivable that God limits his causal influence, contributing just enough to make up for whatever is lacking in secondary causes. If that is right, then *totality* is not essential to divine causation.

Strong concurrentism was quite standard in the medieval and early modern periods, especially among scholastic philosophers and theologians.⁷ When Malebranche defended occasionalism, he was well aware that strong concurrentism was a popular alternative and he went out of his way to demonstrate the extent to which his own views agreed with those of the scholastics. But he also pointed out that the scholastics could not agree among themselves concerning the exact nature of divine concurrence, adding that he could not “conceal the fact that their language appears to me to be quite equivocal and confused.”⁸ Malebranche wasted little effort explaining what exactly was objectionable about strong concurrentism, apparently judging a clear exposition of his own view to be of more value.⁹

⁷ It is, I admit, somewhat anachronistic to present a position popular among medieval thinkers as a strategy for resisting Malebranche’s continuous creation argument. Nevertheless, the proponents of strong concurrentism were familiar with the views of earlier occasionalists. Furthermore, they seem to have been making a conscientious effort to assign as central a causal role to God as they possibly could without going so far as to commit themselves to either occasionalism or causal overdeterminism.

⁸ Malebranche (1675) pp. 678 ff. More recently Peter van Inwagen (1988) has offered a similarly brief and dismissive criticism of the doctrine. He writes: “I find this doctrine hard to understand. Does it credit created things with the power to produce effects or does it not? In the former case, why is God’s cooperation needed to produce the effect? In the latter case, Creation is devalued” (pp. 215-6, fn. 4).

⁹ Malebranche (1675, p. 680) explained:

[W]ith the possible exceptions of Biel and Cardinal d’Ailly, all [the Scholastics] I have read think the efficacy that produces effects comes from the secondary cause as well as the primary. But as I am attempting to observe this law, to say only what I conceive clearly and to side with what best agrees with religion, I believe I shall not be found amiss in relinquishing a view that to many people seems the more incomprehensible the more effort is spent to understand it, and in establishing another that perfectly agrees not only with reason but also with the sanctity of religion and Christian morality.

Somewhere along the line, strong concurrentism fell out of fashion, and among contemporary philosophers of religion it has had very few defenders. The reason for this is somewhat unclear. Perhaps many contemporary philosophers have agreed with Malebranche's assessment that the doctrine is confused and incomprehensible, and so have purposefully rejected it. But I suspect that many have not so much explicitly rejected strong concurrentism, as simply forgotten or ignored it. Many contemporary philosophers, myself included, are unfamiliar (and uncomfortable) with the complex language and conceptual apparatus of medieval scholasticism, and this creates a natural barrier to seriously engaging with strong concurrentism. But in recent years Alfred Freddoso has begun to revive this medieval doctrine, attempting to present and defend it in terms that are at least somewhat more suitable to contemporary ears.¹⁰ I will rely upon his expositions of strong concurrentism in my discussion below.

III-A. Freddoso's Exposition of Strong Concurrentism

Freddoso presents strong concurrentism as a position that seeks to find a middle ground between the excesses of occasionalism and overdeterminism on the one hand and the alleged shortcomings of weak concurrentism on the other. While occasionalism grants secondary causes no role and overdeterminism grants them too small and insignificant a role, Freddoso believes that weak concurrentism grants them too great a role. In spite of some recent popularity, he asserts that "almost all the important figures in the history of philosophical theology have rejected [weak concurrentism] as philosophically deficient

¹⁰ However, Freddoso's presentations still contain a fairly heavy dose of scholasticism. This may be unavoidable, but it is probably also somewhat intentional; Freddoso (2002) says he is convinced "that the scholastics by and large came closer to the truth in metaphysics than either their classical predecessors or their modern and postmodern successors" (p. xi).

and theologically ‘unsafe’.”¹¹ Moreover, he charges that weak concurrentism tends toward “a form of deism which, however weak, falls beyond the pale of theistic orthodoxy.”¹² On the spectrum of positions we are considering, it must be admitted that weak concurrentism is closer to deism than the others (see Table 1 on p. 138). But it remains a rather large step removed from deism, and so I think Freddoso’s criticism is somewhat uncharitable, at least insofar as it relies upon “guilt by association.” On the other hand, his historical point about the prevalence of strong concurrentism is well taken. However, it remains to be seen whether this traditional position can withstand scrutiny. As we will see below, the success or failure of strong concurrentism depends fundamentally upon whether it can make sense of its notion of cooperative action between God and secondary causes.

Freddoso offers the following general characterization of strong concurrentism:

According to [strong] concurrentism, a natural effect is produced immediately by *both* God *and* created substances, so that (*pace* occasionalism) the latter make a genuine causal contribution to the effect and indeed determine its specific character, but (*pace* [weak concurrentism]) they do so only if God cooperates with them contemporaneously as an immediate cause in a certain “general” way which goes beyond conservation and which makes the resulting cooperative *transeunt* action to be in all relevant respects the action of both God and the secondary causes.¹³

¹¹ Freddoso (1991) p. 555; cf. Freddoso (1994) p. 134. Much of the material in these essays also appears in Freddoso (2002), the substantial introduction to his translation of Suarez’s *Metaphysical Disputations* 20-22. According to Freddoso, William Durandus is weak concurrentism’s “only well-known medieval proponent”; see Freddoso (1991) p. 555; cf. Freddoso (1994) p. 134.

¹² Freddoso (1991) p. 579.

¹³ Freddoso (1991) p. 554; cf. Freddoso (1994) p. 134. I have inserted the bracketed words to adapt Freddoso’s terminology to my own. He refers to the position I have labeled *strong concurrentism* simply as *concurrentism*, and he gives the position I call *weak concurrentism* the implicitly pejorative label *mere conservationism*. It seems to me

So strong and weak concurrentists agree that God continually conserves, or causes the existence of, contingent individuals – i.e. both affirm (CC). But weak concurrentists hold that that is *all* that God does, and that the specific properties or characteristics of individuals are determined by the causal contributions of secondary causes. Strong concurrentists, on the other hand, insist that God cooperates with secondary causes in some further sense.

But what exactly does this further cooperation consist of? Freddoso describes God's contributions as general, but *general* can mean many different things, so without some clarification, this description is too vague to be of any help. Freddoso repeats the point in another essay where he explains that one of strong concurrentism's central tenets is that "the secondary agent acts by its created or natural powers as a *particular* cause of the effect, whereas God acts by his uncreated power as a *general* or *universal* cause of the effect."¹⁴ Here Freddoso seem to treat *generality* and *universality* as synonymous and contrasts them with the *particularity* of secondary causes.

That helps, although it is still plagued by vagueness. One might be tempted to understand it along the following lines: God transmits or emanates a sort of general, indeterminate force or energy that secondary causes harness or direct in some particular way, much as a lens focuses and directs a beam of light. On this picture, God is like a universal power supply that secondary causes plug into and particularize in various ways.

that both positions involve a sort of concurrence or cooperation between God and secondary causes, so the labels *strong concurrentism* and *weak concurrentism* strike me as both descriptively accurate and less partial.

¹⁴ Freddoso (2002) p. xcvi-iii.

However, Freddoso warns against such an interpretation, insisting instead that whenever secondary agents causally interact God “tailor[s] his proper causal influence in each case to what is demanded by the natures of the relevant secondary agents.”¹⁵ Clearly then, saying that God’s contributions are *general* is not meant to imply that they are indeterminate or non-specific. If God “tailors” his causal contributions to the specifics of each situation, then God’s contributions are quite determinate and specific.

Perhaps when Freddoso says that God’s contributions are *general* and secondary causes’ contributions are *particular*, he means simply to affirm that God’s contributions are ubiquitous. Any given secondary agent contributes to a limited number of *particular* effects, whereas God is *universally* or *generally* involved, concurring with *every* causal interaction. But I suspect that he also means to emphasize that it is the *particular nature* of the secondary cause that determines the nature of the effect – i.e. God always conforms his own contributions to fit those of the secondary causes, and not vice versa.

These observations are helpful, as far as they go, but they still leave a great deal about the nature of God’s concurrence unexplained. What exactly does God *do* in concurring with secondary causes? Likewise, what is it that secondary causes *do*? And why are they in need of God’s cooperation? According to Freddoso, strong concurrentism understands God and secondary causes as quite literally acting together, jointly producing their effects. Although they are jointly sufficient for the effect, neither contribution can be sufficient by itself.¹⁶ For if the contributions of secondary causes were sufficient by themselves, they would have no need of God’s concurring with them; and if God’s

¹⁵ Freddoso (2002) p. xcvi.

¹⁶ Cf. Freddoso (1994) pp.151-2.

contributions were sufficient by themselves, then strong concurrentism would collapse into causal overdeterminism. Thus, the following claims are both essential to strong concurrentism:

(SC1) Secondary causes make genuine, non-superfluous causal contributions.

(SC2) Secondary causes can accomplish nothing at all without God's specific concurrence.

Intuitively, (SC1) and (SC2) seem to be in tension. It is paradoxical to insist that secondary causes really *do something*, and yet that they are also in essential need of divine assistance to *do anything*. Is it possible to make sense of these claims? Is there a coherent and plausible model of cooperative action that meets all the requirements of strong concurrentism?

III-B. Models of Cooperative Action

Let us begin by considering several types of circumstance in which causal agents *need* the assistance or cooperation of other causal agents. One familiar type of circumstance is when an agent lacks a certain *kind* of causal power that is needed to produce an effect. Suppose I want to finish writing my dissertation, but an unfortunate accident has left me paralyzed from the neck down. Lacking the causal powers needed to gather books and articles from the library or type my chapters, my only hope of finishing will depend upon the cooperation of other causal agents taking care of the aspects of the task I cannot take care of myself. A second type of circumstance in which one agent *needs* the cooperation of another is when the agent has all of the *kinds* of causal powers necessary for a task, but does not possess them to the requisite *degree*. Suppose I need to lift something very heavy, say a piano. Although I have the *kinds* of causal powers needed to lift things, I do not have them to the *degree* needed to lift a piano by myself, so

I must compensate for my deficiency by gathering several friends to help me. A third type of circumstance in which one agent might *need* the cooperation of another is when the agent has all of the *kinds* of causal powers necessary for the task and even has them to the requisite *degrees*, but is prevented, for some reason or other, from exercising them all together. Suppose I (foolishly) decide to repair my car on my own instead of paying a professional mechanic to repair it for me. In order to install a new part I need to (a) hold it in a rather awkward position while at the very same time (b) attaching it with two bolts. Although I have the kinds of causal powers needed for both tasks (and I have them to the requisite degrees), I may be physiologically incapable of performing both simultaneously and thus need the cooperation of another causal agent to assist me with one of them.

I believe that these three general types of circumstance cover the vast majority of cases in which an agent needs the cooperation of another. (There surely are more complex examples, but I expect that they will all involve some combination of the types discussed above – that is, they will simply be more complex combinations of lacking necessary *kinds* of causal power, not having causal powers to the requisite *degrees*, and being prevented, for some reason or other, from exercising causal powers one possesses.) The question is: do any of these general types suggest a model of cooperative action appropriate for strong concurrentism? Let us consider each in turn.

I think we can set aside the third type rather quickly. When strong concurrentists affirm that secondary causes are in essential need of divine concurrence, they surely do not mean to affirm that secondary causes have all the requisite *kinds* and *degrees* of powers needed for their effects but are systematically prevented from simultaneously

exercising them all. The need for divine concurrence is not analogous to my need of an extra pair of hands to help me repair my car!

What about the first type? Perhaps what strong concurrentists mean to affirm is that secondary causes lack some particular *kind* of causal power that is necessary for any effect, some special power that only God can contribute. This would plausibly explain why secondary causes have an *essential* need for divine concurrence. It would also seem to explain why the contributions of secondary causes are not superfluous: God and secondary causes each exercise different kinds of causal powers, both of which are necessary in order to produce the effect. Unfortunately, this model wanders too far towards the province of weak concurrentism. Distinct *kinds* of causal powers are differentiated by the kinds of effects they produce. Thus, the claim that God and secondary causes each exercise different kinds of causal powers seems to imply that God is responsible for certain aspects of the total effect and secondary causes are responsible for others. But that is precisely what *weak concurrentism* says: it claims that God is responsible for bringing about the *existence* of things, and secondary causes are responsible for bringing about the particular *properties* of those things. *Strong concurrentists*, on the other hand, do not want God's contribution to be limited to certain aspects of the effect. They want God to be involved in *all* aspects of the effect; more specifically, they maintain that God must concur with secondary causes in the specific aspects of the effect that they bring about. Thus, although this may be an appealing model

of cooperative action for weak concurrentism, the model is not appropriate for strong concurrentism.¹⁷

The fact that strong concurrentists want God to be involved in all aspects of the effect, including those that secondary causes contribute to, suggests that they might be happier with the second type of cooperation I discussed above. Perhaps secondary causes simply do not have their causal powers to the *degree* needed to achieve their effects, so God fills in what is lacking. I illustrated this model above using the example of trying to lift a piano – I have the kinds of causal power needed to lift a piano, but I need the cooperation of others because I do not have them to the requisite degree. Freddoso discusses a highly similar example. He imagines that someone needs to lift the back end of his car ten inches to get it over a ridge of ice in his driveway and into the garage. By himself he cannot lift the car off the ground at all, and he has a friend who also cannot lift it off the ground by himself. But lifting together they can get it all the way over the ridge. Both friends act upon the car in the same way – i.e. they exercise the same *kinds* of causal powers. Freddoso goes so far as to suggest that we should not think of them as performing two separate acts, but rather as jointly performing a single unitary action.¹⁸ Furthermore, Freddoso seems to endorse this as the right model of cooperative action for strong concurrentism; he claims that this model is

a fitting one for the [strong] concurrentist, since according to [strong] concurrentism neither God's concurrence nor the secondary cause's

¹⁷ Freddoso discusses matters closely related to those of this paragraph in Freddoso (1994) pp. 142-5.

¹⁸ This point does not at all convince me, but I will set my doubts about it aside in order to focus on what I take to be more serious and important difficulties with modeling concurrentism on such cases.

influence can effect anything, or even exist, in the absence of the other. So the [strong] concurrentist must hold that in their cooperative actions God and the secondary cause constitute a single total cause that produces the relevant unitary effect by means of a single, undivided, action.¹⁹

It must be admitted that this model of cooperative action does a good job of accounting for certain central features of strong concurrentism. For example, it explains how God might actively and directly contribute to the very same features of the effect that secondary causes actively and directly contribute to. In other words, it seems to explain how God and secondary causes might literally act together. However, Freddoso does not seem to realize that this model of cooperative action is inconsistent with other central features of strong concurrentism.

III-C. Strong Concurrentism's Dilemma

I suggested above that there seems to be a tension between two of strong concurrentism's essential claims: that secondary causes make genuine, non-superfluous causal contributions (SC1), and that secondary causes can never accomplish anything without God's specific concurrence (SC2). But now that we have a specific model of cooperative action, we can see that (SC1) and (SC2) are not merely in tension, but flatly conflict with each other. According to the model, both agents exercise the same *kinds* of causal powers, and hence influence the same aspects of the effect. God's concurrence with secondary causes, then, is simply a matter of making up for whatever *degree* of causal power a secondary cause is lacking. But in that case, assuming that secondary causes make genuine contributions, God's concurrence should not *always* be necessary.

¹⁹ Freddoso (1994) pp. 153-4.

To see why, let us return, for a moment, to the example of two friends lifting a car. We may grant that neither could produce this effect by themselves; nevertheless, if both are making genuine contributions, then each of them should be able to lift a lighter object without any assistance. Suppose we were told that a certain agent, *s* has the *kinds* of causal power needed to lift things, but that although *s* frequently lifts things in cooperation with others, *s* is incapable of lifting anything on her own. We would dismiss such a claim as utter nonsense, and rightly so! The very same point can be made concerning divine concurrence with secondary causes. Strong concurrentism wants to maintain that God's concurrence is required *in principle*. But if secondary causes have genuine powers, and if they and God contribute to the same aspects of the effects, then there should be cases in which their powers, if they are genuine, are sufficient to produce the effect without any divine assistance. In short, strong concurrentists face a dilemma, and each horn requires rejecting a claim essential to their view. If they continue to maintain that secondary causes make genuine, non-superfluous contributions (SC1), then they are forced to deny that divine concurrence is always required (SC2). On the other hand, if they continue to maintain that divine concurrence is always required (SC2), it seems that they will be forced to deny that secondary causes really make genuine non-superfluous contributions (SC1).

The moral is this: the only way to maintain that secondary causes make genuine contributions *and* ensure that divine concurrence is always necessary is to acknowledge that God's contributions differ in *kind* from those of secondary causes. God's contribution, whatever it is, must be something that is necessary for any effect to obtain and such that no secondary cause can contribute it. If that is right, then there simply does

not seem to be any model of cooperative action that can satisfy all the criteria of strong concurrentism.

Freddoso comes very close to some of these conclusions himself, but he tries to stop short. When he introduces strong concurrentism's claim that God acts as a general or universal cause of effects while secondary causes act as particular causes of those effects, Freddoso admits that this assertion "requires careful unpacking" if strong concurrentism is to avoid rendering either God's contributions or secondary causes' contributions unnecessary. Moreover, he concedes,

The only viable way to do this is to claim that certain features or aspects of the unitary effect are traceable *primarily* to God and that certain other features of the unitary effect are traceable *primarily* to the secondary agents.²⁰

The suggestion that some features of the effect can be traced *primarily* to God and others *primarily* to secondary causes seems to be a thinly veiled attempt to have it both ways. On the one hand, Freddoso wants to deny that God and secondary causes make distinct kinds of contributions, but on the other hand he seems to recognize that some such distinction is needed. But it is hardly clear that it is possible to have it both ways. How are we to understand this notion of a feature's being traceable *primarily* (as opposed to *entirely*) to only one agent, and how is it supposed to solve strong concurrentism's problems? Freddoso tries to illuminate the idea with the following analogy:

Suppose that I use my favorite pen to write you a letter. It seems clear that both the pen and I count as joint immediate causes of a single effect, though in different 'orders of causality'. More specifically, I am a principal cause of the letter, while the pen is an instrumental cause. Yet the fact that the letter is written in black rather than in some other color depends primarily on the causal powers of the pen as an instrumental

²⁰ Freddoso (2002) p. xcvi, emphasis added.

cause rather than on any of my powers as a principal cause. (Remember that we are concentrating on my action just insofar as it is identical with the pen's action; my further reasons for choosing this particular pen do not enter into that.) On the other hand, the fact that the word 'philosophy', rather than some other word, occurs at a certain place on the piece of paper—or, even better, the fact that there is any word produced at that place rather than none at all—depends primarily on my influence as a principal cause rather than on the pen's as an instrumental cause.²¹

However, this analogy does not support Freddoso's case. Aside from his prior act of choosing which pen to use (which Freddoso himself acknowledges is not pertinent), I see no reason to think that Freddoso is *at all* responsible for the fact that the letter is in black ink rather than some other color. That aspect of the effect would seem to be *entirely* – not merely *primarily* – attributable to features of the pen. Likewise, although the pen certainly bears some responsibility for the fact that *anything at all* is written on the page, the fact that the word 'philosophy' occurs there rather than some other word is surely attributable *entirely* to Freddoso. Surely his pen does not play any role in determining which specific words Freddoso writes! (Just imagine what a convenient excuse that would provide for those who regret having written something. Defense lawyers would certainly make endless use of it!) The fact is that Freddoso and his pen make fundamentally different kinds of contributions to the total effect. So instead of illuminating the strong concurrentist position, the analogy lends further support to my own conclusions: the only way to ensure *both* that secondary causes make genuine contributions *and* that divine concurrence is always necessary is to acknowledge that they make different *kinds* of contributions to different aspects of an effect.

²¹ Freddoso (2001) pp. 14-5.

III-D. Conclusion

Strong concurrentism seeks to find a middle ground between occasionalism and overdeterminism on the one hand and weak concurrentism on the other, but this middle ground has proven elusive. Unless they can make sense of their problematic notion of cooperative action, strong concurrentists cannot claim to offer a plausible alternative to Malebranche's occasionalism. None of the models of cooperative action we have considered is able to satisfy all of strong concurrentism's demands, and I can think of no other candidates that would fare better. Of course, it is always possible that some successful model will emerge, but at this point it seems unlikely. After a closer examination, it seems likely that Malebranche was correct when he judged strong concurrentism to be "equivocal and confused."

IV. Weak Concurrentism

In the previous two sections, we have examined two strategies for avoiding occasionalism – overdeterminism and strong concurrentism – and have found both to be defective. However, the criticisms raised against strong concurrentism have given us reason to hope that weak concurrentism might succeed where it failed. I suggested above that any plausible concurrentist alternative to occasionalism will have to attribute certain aspects of the effect entirely to God and others entirely to secondary causes and that is precisely what weak concurrentism does. According to weak concurrentism, God's causal contributions are generally restricted to conserving the *existence* of contingent individuals, while causal interactions between those individuals are responsible for bringing about their precise features or *properties*.

Unlike strong concurrentism, weak concurrentism was not a popular position in Malebranche's time.²² Still, he did recognize it as an alternative to occasionalism and explained why he found it unacceptable, albeit ever so briefly. Malebranche says that weak concurrentism is "untenable in every way," but as he continues, he offers a somewhat more restrained assessment: "although this opinion might contain fewer difficulties than that of other theologians, it appears to me so contrary to Scripture, and so consonant with prejudice, to say no more of it, that I do not think it can be maintained."²³ Malebranche's comment that weak concurrentism "might contain fewer difficulties than that of the other theologians" is intriguing because the other theologians he is referring to are the strong concurrentists. In other words, although Malebranche considered weak concurrentism to be highly problematic theologically, he also admitted that he found it less problematic philosophically. Given the source, I think that is a considerable (although certainly unintentional) commendation of weak concurrentism.

One of the reasons that weak concurrentism seems to involve fewer difficulties is that it involves a much simpler, more decisive approach to resisting Malebranche's argument for occasionalism. Unlike strong concurrentism, which invokes an emasculated *bringing about*₂ relation in an attempt to sustain some version of the principle of conservation with determinate properties (CoD₂), weak concurrentism blocks Malebranche's inference from (CC) to (O) by rejecting (CoD) outright. Contra

²² The only weak concurrentist Malebranche mentions by name is Durandus of Saint-Pourçain (ca. 1270-1334).

²³ Malebranche (1675) p. 680.

Malebranche, weak concurrentists maintain that God can cause individuals to exist without causing them to possess complete determinate sets of properties.

What can be said in favor of this claim that we can maintain (CC) without accepting (CoD) in any form? What is said most often is simply that (CC) does not entail (CoD); that is, the claim that God brings about the *existence* of every contingent individual at each moment does not entail the much stronger claim that God brings it about that those individuals possess the properties they possess. For example, Kvanvig and McCann write,

As Creator, God is directly and primarily responsible for the fact that there is something rather than nothing: that is, it is His creative activity that is causally responsible for the *existence* of the physical universe. To say this is not to say He is directly responsible for the states of things in the universe, or the changes they undergo. . . . [W]e see no direct conflict between the doctrine that the creation and sustenance of the universe are one and the same and the claim that secondary causes are operative in nature.²⁴

This distinction between the *existence* and the *properties* or *states* of things is crucial to weak concurrentism. I briefly raised this issue in Chapter Two (section II-C), although I approached it there from a more linguistic standpoint: when God wills that some individual, *x*, should exist, how extensive must the descriptive content of that volition be? Malebranche's principle of conservation with determinate properties (CoD) asserts that the descriptive content must be complete (for any property *P*, if *x* has *P* then the divine volition must specify that *x* has *P*). Weak concurrentists, on the other hand, deny that the

²⁴ Kvanvig & McCann (1988) p. 16; cf. Pessin (2000). In McCann and Kvanvig (1991) the authors appear to have changed their views. Here they reject weak concurrentism and embrace occasionalism, basing their conclusions at least in part on the basis of Malebranche's continuous creation argument. In the later essay, they reject the strategy of divorcing God's causing the existence of things from God's causing the states of those things.

descriptive content of God's volitions must be complete. This denial will be defensible only if there is some underlying metaphysical grounding for the distinction between an individual's existence and its properties.

Thus, the legitimacy of weak concurrentism depends upon the answers to fundamental metaphysical questions about the nature of properties and their relation to the individuals that bear them. Some answers to these questions clearly seem to render weak concurrentism's existence/property distinction illegitimate. *Nominalism*, for example, asserts that only particular individuals exist, and that all apparent references to properties or universals can be understood as disguised ways of referring to something else (perhaps to particulars themselves, or to linguistic expressions). Thus, nominalism provides no metaphysical grounding for the existence/property distinction. Neither would the *bundle theory* of particulars; this theory asserts that only properties exist, and that particulars are reducible to bundles of properties. If particular individuals are just bundles of properties, then it is impossible to draw a distinction between causing their existence and causing them to have the properties they have.

However, other answers to these fundamental metaphysical questions seem to lend support to the distinction. For example, at the far opposite extreme of the bundle theory is the view that individuals are *bare particulars* – that is, an individual is a propertyless *substratum* in which its properties inhere. The substratum conception of individuals comports well with weak concurrentism because it provides a sharp metaphysical basis for the distinction between causing an individual to exist and causing it to possess its properties. However, I do not think that the substratum theory is the only conception of individuals consistent with weak concurrentism. One of our fundamental

pre-philosophical intuitions about individuals is that they could have differed from the way they actually are in many, *but not all*, respects. The substratum theory seems to contradict the intuition that there are some limitations on the ways in which an individual could have been different than it is. If this intuition is to be preserved, an account of the nature of individuals must distinguish between the properties that are inseparable from an individual (its essential properties) and the properties that the individual happens to have but need not have had (its accidental or contingent properties). In a somewhat Aristotelian vein, individuals could be conceived of as irreducibly structured substances that possess certain of their properties and/or powers essentially. Given such a conception, even if God's conserving individuals would entail causing them to exist with their essential properties and powers (whatever those are), it would not in any straightforward way entail causing them to exist with their accidental properties. So such an Aristotelian conception of individuals would also provide a basis for weak concurrentism's existence/properties distinction.²⁵

My intention here is not to defend any specific account of the nature of particulars. I simply want to highlight the general point that weak concurrentism's distinction between causing an individual's existence and causing its states or properties must be grounded in some corresponding metaphysical distinction in the nature of individuals. As long as there is some such metaphysical distinction, weak concurrentists seem to be justified in their insistence that conservation does not by itself entail anything like (CoD).

²⁵ Something like this seems to be what van Inwagen (1988) has in mind.

However, this rather minimal defense of weak concurrentism remains unsatisfying because it fails to address the full force of Malebranche's argument. After all, Malebranche does not contend that each property an individual possesses is essential to it, but rather that existing individuals always possess a complete determinate set of properties. To return to Malebranche's favored example, a chair must exist at some specific location; God cannot cause it to exist *nowhere*, so would it not involve a contradiction to suppose that God creates (or conserves) it at some moment without placing it at some specific location? (And the same point holds if we shift the example from that of a chair to a fundamental particle.) Weak concurrentists surely owe us some explanation of where Malebranche goes wrong. Their most plausible reply, I think, is to insist that Malebranche moves too quickly from the observation that any existing individual must *possess* a complete determinate set of properties to the conclusion that *God* must be responsible for individuals' possessing the precise sets of properties they do. Weak concurrentists will want to maintain that as long as an individual *has* a complete determinate set of properties there is no contradiction, regardless of whether the individual's having those properties is brought about by God or by secondary causes. Thus, the Malebranchean conclusion is simply a *non sequitur*.

Perhaps that is right, but part of the appeal of Malebranche's reasoning is that it is exceedingly hard to see how secondary causes could bring about these effects if God is continuously creating everything. So even if weak concurrentists are right to insist that Malebranche fails to reveal an outright contradiction in their view, his argument may still be persuasive. Philip Quinn, himself a weak concurrentist, identifies the tension in the weak concurrentist position acutely in the following thought experiment:

Let us imagine that the world of contingent things is partitioned into time-slices by the relation of absolute simultaneity. If the contingent things that exist at a time-slice depend for their existence solely and totally on God's creative activity at that time-slice, then except for connections among time-slices made from outside nature by divine activity, what exists contingently at one time-slice within created nature is completely independent of what exists contingently at any other. But this appears to leave little or no room for what happens at one time-slice to exercise any influence on what happens at any other by means of a path that remains wholly internal to the created realm. So there seems to be a problem of trans-slice causation, and the possibility of there being secondary causes in nature appears threatened.²⁶

Take two time-slices of the world, S_1 and S_2 , and for the sake of simplicity let us assume that they are temporally contiguous.²⁷ According to (CC), neither S_1 nor any of its spatial parts is capable of bringing about the existence of S_2 or any of its spatial parts; apart from a divine volition, S_2 and its spatial parts simply would not exist. Nevertheless, weak concurrentists want to insist that S_1 and its spatial parts are causally responsible for (at least many of) the properties possessed by S_2 and its parts. But this alleged causal influence seems utterly mysterious. If S_1 is causally isolated from the very existence of S_2 , how can it be more than a mere occasional cause of S_2 's properties? Apart from an adequate answer to this question, weak concurrentism cannot claim to provide a plausible alternative to Malebranche's occasionalism.

²⁶ Quinn (1988) p. 55.

²⁷ If time-slices are instantaneous and time is a continuum, then strictly speaking, no two time-slices can be contiguous. However, their non-contiguity can only complicate the position of weak concurrentism, not help it to resolve the difficulties under discussion. Thus, for present purposes there is no harm in idealizing and supposing S_1 and S_2 to be contiguous.

V. Conclusion

In this chapter we examined three strategies for resisting Malebranche's continuous creation argument for occasionalism. Causal overdeterminism and strong concurrentism both attempt to carve out some space for secondary causes by weakening the causal relation in (CoD), but I argued that both of these strategies are deeply flawed and should be rejected. Weak concurrentism, on the other hand, is a somewhat more promising alternative. Rather than tinkering with (CoD), weak concurrentism denies (CoD) outright and endorses a much cleaner division of labor: secondary causes by themselves are responsible for many of the *properties* possessed by contingent individuals, while God alone is responsible for the *existence* of contingent individuals at every moment. But although weak concurrentism avoids many of the complications and confusions of strong concurrentism, the alleged efficacy of secondary causes remains deeply mysterious. It is one thing to insist that secondary causes can bring about the properties of contingent individuals, but quite another to offer a plausible explanation of this alleged causal influence. In the next chapter we will consider whether weak concurrentism can meet this challenge.

CHAPTER EIGHT

Weak Concurrentism and Causal Theories

Weak concurrentism endorses the doctrine of continuous creation (CC) as well as the principle of creation with determinate properties (CrD), but attempts to avoid occasionalism (O) by rejecting the principle of conservation with determinate properties (CoD). Although God causes the *existence* of all contingent individuals at all times, after the moment of their initial creation God is not (typically) involved in causing them to possess the *properties* they have – that task is left to secondary causes. I argued in Chapter Seven that weak concurrentism is the most promising strategy for resisting Malebranche’s continuous creation argument for occasionalism. However, as we saw at the end of that chapter, the alleged efficacy of secondary causes remains utterly mysterious. If God is continuously creating everything, how can secondary causes make *genuine*, rather than merely *occasional*, causal contributions? If weak concurrentists want to offer a plausible alternative to occasionalism, they cannot be content with merely claiming that secondary causes are efficacious; they need to back up that claim with something like a positive theory of secondary causation.

That is not an easy undertaking, in part because causation is such a complicated problem in its own right. Philosophers are deeply divided over how to understand causation, so even if weak concurrentists can demonstrate that some particular causal theory is consistent with continuous creation, they will only have succeeded in

convincing those who find that particular causal theory plausible. Thus, weak concurrentists seem to be faced with a doubly difficult task: first, of demonstrating that a particular causal theory is consistent with continuous creation and second, of defending the truth or plausibility of that causal theory. But there is another strategy for defending weak concurrentism that is, in differing respects, both more and less ambitious. If weak concurrentists could demonstrate that continuous creation is consistent with *any* causal theory – or at least with any of the most commonly accepted causal theories – then they would not need to convince others of the truth or plausibility of any particular causal theory. One weak concurrentist has attempted to carry out this latter strategy. Rather than focusing on any one particular theory, Philip Quinn (1988) considers simple versions of three of the most popular approaches to causation and argues that each of them is consistent with continuous creation. His overall argument can be summarized as follows:

- (1) Continuous creation (CC) is consistent with the regularity theory of secondary causation.
- (2) Continuous creation (CC) is consistent with the counterfactual theory of secondary causation.
- (3) Continuous creation (CC) is consistent with the necessitarian theory of secondary causation.
- (4) Thus, regardless of the outcome of the debate over the nature of secondary causation, there is no reason to think that continuous creation (CC) is inconsistent with secondary causation.

If this argument were sound, it would constitute a powerful defense of weak concurrentism. Unfortunately, it is not sound.

In order to understand why the argument fails, we will first need to consider the methodological question of how a causal theory could be shown to be consistent with continuous creation. In section I, I will argue that Quinn overlooks an important

requirement that any adequate theory must fulfill: namely, an adequate theory of secondary causation must be able to distinguish between real and merely occasional causes. Then, in sections II and III, I will argue that the regularity and counterfactual theories fail to meet this requirement, and in section IV I will defend the more general conclusion that any reductionist theory of causation will fail to meet this requirement. Finally, in section V I will argue that non-reductionist theories of causation such as the necessitarian theory do meet the requirement. Hence, there is at least some hope for reconciling continuous creation with secondary causation; however, contrary to Quinn, continuous creationists cannot remain neutral concerning the outcome of debates over the nature of secondary causation.

I. Methodology: What does Consistency Require?

I-A. Quinn's Method

Quinn's defense of weak concurrentism rests upon three crucial premises, each of which asserts that continuous creation is consistent with a particular causal theory. But how can we determine whether continuous creation is consistent with a theory of secondary causation? As we all learned in introductory logic, a set of statements is consistent if it is possible for them all to be simultaneously true; or equivalently, a set of statements is consistent if the conjunction of those statements implies no contradictions. Thus, Quinn's strategy for establishing that (CC) is consistent with a specific theory of secondary causation is, reasonably enough, to show that their conjunction has no problematic implications.

To see how this goes, let us consider Quinn's argument for premise (1) – i.e. the claim that (CC) is consistent with the regularity theory. His first step is to introduce a simple version of the regularity or “constant conjunction” causal theory. Consider a familiar type of causal interaction such as a lit match causing some water to be heated. According to Quinn's simple regularity theory, this example is analyzed as follows:

- (5) The match's being lit at a certain time *is a cause of* the water's being heated slightly later iff:
- i. the match's being lit at a certain time occurs
 - ii. the water's being heated slightly later occurs
 - iii. whenever such a match's being lit at a time occurs such water's being heated slightly later occurs.

In its more general form, Quinn's simple regularity theory of causation states (note: Δt indicates a small temporal increment):

- (6) i_1 's being F at t_1 *is a cause of* i_2 's being G at $t_1 + \Delta t$ iff:
- i. i_1 's being F at t_1 occurs
 - ii. i_2 's being G at $t_1 + \Delta t$ occurs
 - iii. for all t , if, for some x , x is similar to i_1 and x 's being F at t occurs, then, for some y , y is similar to i_2 and y 's being G at $t + \Delta t$ occurs.¹

Quinn's second step is simply to examine the consequences of conjoining (6) with (CC),

- (CC) *Necessarily, for all x and t , if x is contingent and x exists at t , then God's willing that x exists at t brings about x 's existing at t .*

What are those consequences? First, we seem to get the favorable consequence that there are instances of secondary causation. Many pairs of events seem to satisfy (6)'s definition of secondary causation – lit matches cause water to warm, billiard balls that strike other billiard balls cause them to roll, flying rocks cause windows to break, and so on. Thus, there will be many true statements of the form,

¹ As Quinn (1988, p. 57) notes, condition 6-iii must be interpreted in terms of a *ceteris paribus* clause.

(7) i_1 's being F at t_1 is a cause of i_2 's being G at $t_1 + \Delta t$.

Secondly, there simply does not appear to be a way to derive any contradictory or otherwise problematic consequences. If we make the plausible actualist assumption² that,

(8) Necessarily, for all x , t , and F , if x 's being F at t occurs, then x exists at t

then from statements of the form of (7) we can derive,

(9) i_1 exists at t_1

and

(10) i_2 exists at $t_1 + \Delta t$.

And from (9), (10), and (CC) it follows that,

(11) God's willing that i_1 exists at t_1 brings about i_1 's existing at t_1

And

(12) God's willing that i_2 exists at $t_1 + \Delta t$ brings about i_2 's existing at $t_1 + \Delta t$.

But these consequences are perfectly innocent – indeed, they are precisely what we would expect from (CC). To get a contradiction, we would need to be able derive something like,

(13) God's willing that i_2 be G at $t_1 + \Delta t$ brings about i_2 's being G at $t_1 + \Delta t$.

(13) would be problematic because it contradicts (7) – if God is the total and exclusive cause of i_2 's being G at $t_1 + \Delta t$ then i_1 's being F at t_1 could not be a cause of that event.

But it simply does not seem to be possible to derive (13), nor is there any way to derive

² I refer to this as an *actualist* assumption because I take it to imply that nothing ever instantiates such dubious properties as *non-existence* or *being impossible*. Hence, such properties cannot constitute counterexamples to (8). Quinn (1988, p. 57) does not describe the assumption as actualist; rather, he simply treats such substitutions for F as “peculiar” exceptions that can be noted and henceforth ignored.

anything like Malebranche's principle of conservation with determinate properties (CoD) or (O). Thus, Quinn concludes that (CC) and (6) are consistent.

Of course, Quinn recognizes that his simple regularity theory is vulnerable to familiar counterexamples – e.g. it will fail to distinguish between genuinely causal regularities and merely fortuitous, non-causal regularities. A fully adequate regularity theory of causation (assuming this is possible) would need to be supplemented with other conditions. Nevertheless, Quinn contends that a strengthened analysis, “no matter how complicated and sophisticated it may be, will still comport well with my theory of creation and conservation, provided the Humean pattern is followed to the extent of using only de facto regularities in the analysans.”³ That seems right. If (CC) is consistent with (6), then it will also be consistent with a strengthened form of (6) that includes, say, a condition requiring spatial contiguity between i_1 and i_2 . Thus, Quinn concludes that continuous creation is consistent with the regularity theory of secondary causation, and so those who are attracted to that theory have little reason to worry about being committed to occasionalism.

Quinn's arguments for premises (2) and (3) follow the same pattern. He introduces a simple counterfactual theory and a generic necessitarian theory, and in each case argues that nothing problematic can be derived from the conjunction of these theories with (CC). Thus, he concludes that (CC) is consistent with counterfactual and necessitarian theories of causation as well. I will forgo a detailed presentation of Quinn's arguments for premises (2) and (3); in light of the preceding summary of his defense of premise (1), the basic gist of those arguments should be tolerably clear. In the following

³ Quinn (1988) p. 61.

sections, I will argue that Quinn's approach to defending these premises is inadequate. I will begin with an informal, intuitive statement of my criticism.

I-B. A Worry about Quinn's Method

Let us briefly review the big picture. The chief challenge faced by weak concurrentists is that of explaining how secondary causes can make *genuine*, as opposed to merely *occasional*, causal contributions: given that God is continuously creating everything, how can secondary causes get in on the action? Quinn attempts to meet this challenge by demonstrating that three popular definitions of causation are consistent with continuous creation – i.e. that these definitions can be conjoined with (CC) without contradiction. I am willing to grant that (CC) is formally consistent with each of these definitions, but I do not believe that that is sufficient to show that (CC) is consistent with *genuine* secondary causes. After all, even Malebranche allowed that we can continue to speak of secondary “causes,” so long as we are clear about the fact that they do not really produce any effects – that is, so long as we are clear that they are not true causes at all. For Malebranche, what we refer to as causes are simply “occasional causes” – i.e. the *occasions* upon which God brings about the effects.

The inadequacy of Quinn's method is most easily recognized in his argument that continuous creation is consistent with the regularity theory. History is illuminating on this point, for although Hume is generally regarded as the original regularity theorist, it is no secret that Hume owed a great debt to Malebranche for his views on causation.⁴ Indeed, Hume's famous argument against necessary connections between natural events was

⁴ For a more detailed discussion of Malebranche's influence on Hume see McCracken (1983) ch. 7.

adapted from one of Malebranche's other arguments for occasionalism. According to Malebranche, occasionalism is a straightforward consequence of the observation that there must be a "necessary connection" between cause and effect. He writes,

A true cause as I understand it is one such that the mind perceives a necessary connection between it and its effect. Now the mind perceives a necessary connection only between the will of an infinitely perfect being and its effects. Therefore, it is only God who is the true cause and who truly has the power to move bodies.⁵

In other words, Malebranche believed that causes must necessitate their effects – that if *a* causes *b*, then given the occurrence of *a* it should be impossible for *b* to fail to occur. Furthermore, he argued that when we examine alleged instances of secondary causation and seek to identify this necessary connection, we find ourselves at a loss. Granted, whenever one billiard ball strikes another, the second always does *in fact* roll away; nevertheless, it is perfectly conceivable that instead of rolling away, the second ball might remain stationary, or jump straight into the air, or simply disappear, etc. We simply cannot detect any necessity underlying this regularity, and the same thing can be said of other alleged instances of secondary causation. Thus, Malebranche concluded that alleged secondary causes are not true causes at all. God, on the other hand, is omnipotent; and since it is inconceivable that an omnipotent being should will that some event occur without the event's occurring, divine volitions do necessitate their effects. So divine volitions are true causes – indeed, they are the *only* true causes.

Hume adapted part of Malebranche's "necessary connection" argument, albeit to defend a rather different conclusion. Much like Malebranche, he insisted that the most important component of our idea of causation is that of a necessary connection between

⁵ Malebranche (1675) p. 450.

cause and effect.⁶ He also agreed with Malebranche that we perceive no such necessary connection between natural events. However, unlike Malebranche, Hume considered notions such as power, efficacy, and necessary connection no less problematic when applied to the divine will than when applied to secondary causes.⁷ Thus, while Malebranche concluded that God is the only genuine cause, Hume drew radically different conclusions. Hume concluded that the idea of a necessary connection has a purely psychological origin. Having always observed like causes to be followed by like effects, we are led by force of habit to think that they *must* do so of *necessity*; but in reality there are no necessary connections. For Malebranche, the regularities or “constant conjunctions” we observe in the world are simply the occasions upon which *God* acts as the true cause, but for Hume these constant conjunctions are all there is to causation in the world.⁸ Thus, as Stuart Brown has observed, “Hume, if this is not a contradiction in terms, seems like an occasionalist, only without God.”⁹

⁶ *A Treatise of Human Nature*, 1.3.2; Hume (1740) p. 55.

⁷ *A Treatise of Human Nature*, 1.3.14; Hume (1740) pp. 107-8. Cf. *An Enquiry Concerning Human Understanding*, VII-II; Hume (1777) pp. 72-3.

⁸ I should note that there is a lively debate over how to interpret Hume’s views on causation. Hume does sometimes speak as though there is a sort of “secret connection” that lies beyond our epistemic grasp, but which is nonetheless real. Until recently, most interpreters have not taken such comments seriously; for example, Mackie (1974) suggests that Hume “may well have his tongue in his cheek here, as he does when he speaks about the deity” (p. 21). However, Galen Strawson (1989) and others have called this traditional interpretation into question, urging that Hume should be understood as a sort of “skeptical realist” about causation. This “New Hume” believed in the existence of powers or necessary connections in nature; rather than trying to convince us that there are no powers or necessary connections, he was simply concerned to show us that they lie beyond our epistemic grasp. Thus, Hume’s regularity or constant conjunction theory is understood as an account of what we can *know* of causation as it is in the world, but not as an account of causation itself. For an excellent collection of essays on Hume’s views on causation, see Read and Richman (2000). In the text above I assume the traditional

I think this comparison between Hume and Malebranche helps to clarify why Quinn's approach to reconciling continuous creation and secondary causation is unpersuasive. Even Malebranche would have agreed that the regularity theory's definition of causation is formally consistent with continuous creation; after all, the regularity theory is essentially what Malebranche had in mind when he spoke of mere *occasional causes*. But Malebranche would have vehemently denied Quinn's apparent assumption that the regularity theory identifies true causes. Hume, of course, promoted Malebranche's *occasional causes* to the status of *causes* (i.e. causes *simpliciter*), but in order to do so he did away with God as a true necessitating cause. Quinn also wishes to promote Malebranche's occasional causes to causes, but unlike Hume, Quinn agrees with Malebranche that divine volitions necessitate their effects. If Hume can be described as an occasionalist without God, then Quinn seems to be trying to be Hume with God! How, then, can he avoid being an occasionalist? The mathematics of the situation seems quite simple: if (Hume = Malebranche – God) and (Quinn = Hume + God), then (Quinn = Malebranche)!

Perhaps that is a bit too simplistic, but the crucial point I want to stress is this: the mere fact that continuous creation is formally consistent with a definition of causation is not sufficient to guarantee that continuous creation is consistent with *genuine* secondary causation. The reason is that formal consistency alone does not distinguish between genuine causation and occasional causation: for all we know, a definition of causation

interpretation of Hume; however, my doing so does not reflect a judgment that this is the superior interpretation, but rather a desire for ease of exposition.

⁹ Brown (2000) p. 266.

may identify nothing more than the *occasions* upon which God brings about effects. In order to demonstrate that continuous creation is consistent with genuine secondary causation, weak concurrentists must somehow show that continuous creation is consistent with a definition of causation *and that that definition identifies real rather than occasional causes*.¹⁰ Thus, Quinn's overall argument must be revised (or clarified) along the following lines:

- (1*) Continuous creation (CC) is consistent with the regularity theory of secondary causation, and this is a theory of *genuine* secondary causation.
- (2*) Continuous creation (CC) is consistent with the counterfactual theory of secondary causation, and this is a theory of *genuine* secondary causation.
- (3*) Continuous creation (CC) is consistent with the necessitarian theory of secondary causation, and this is a theory of *genuine* secondary causation.
- (4*) Thus, regardless of the outcome of the debate over the nature of secondary causation, there is no reason to think that continuous creation (CC) is inconsistent with *genuine* secondary causation.

I-C. Distinguishing between Real and Occasional Causes

I have argued that weak concurrentists need to do more than show that a definition of causation is formally consistent with (CC); they must also demonstrate that the definition in question identifies *real* secondary causes, and not merely *occasional* causes. But how can weak concurrentists meet this additional requirement? It would be helpful if there was a sort of litmus test for causal theories – a simple experiment that would separate theories that define genuine causation from theories that define mere

¹⁰ Quinn (1988) does briefly anticipate the concerns I have raised here, but his response is rather dismissive. He simply notes that (CC) “entails nothing about whether or how events such as i_2 being G at $t_1 + \Delta t$ are brought about. For all it says, such events have only Humean causes and do not have true causes in Malebranche's sense.”¹⁰ That may be technically correct as far as it goes, but it does not cut to the heart of the problem. It certainly does not answer my more formal statement of the objection in section I-C.

occasional causation. I will propose a simple test that, I believe, fulfills this purpose. First, I will describe two possible worlds: both are highly similar, but the first involves genuine secondary causes, and the second does not. Then I will test definitions of causation simply by applying them to both worlds. If a definition describes both worlds accurately – that is, if correctly implies that the first contains secondary causes and that the second does not – then we have a good reason to accept it as a definition of *genuine* causation.¹¹ However, if a definition wrongly implies that the second world contains secondary causes, it will have been exposed as a theory of mere occasional causation.

I have defined occasionalism as the view that God is sole and total cause of everything that occurs – i.e. God not only brings about the *existence* of every contingent individual at every moment (CC), but also brings about all of the states or properties of those individuals at every moment (O). Thus, I will refer to possible worlds in which (CC) and (O) are both true as *occasionalist worlds*. And I have defined weak concurrentism as the view that God brings about the *existence* of every contingent individual at every moment but generally leaves it to secondary causes to bring about the states or properties of those individuals. Thus, I will refer to possible worlds in which (CC) is true but (O) is false as *weak concurrentist worlds*. The basic premise of my test is that any theory of genuine secondary causation must be able to properly distinguish between occasionalist and weak concurrentist worlds.

Applying the test will be easiest if we narrow our focus to two worlds that are highly similar; thus, let us consider one weak concurrentist world, W_{wc} , and one

¹¹ Describing both worlds accurately is at least a necessary condition for being a definition of genuine causation. Is it also a sufficient condition? Perhaps, but I am less certain about that, so I will not insist upon it.

occasionalist world, W_{oc} . Furthermore, let us stipulate that both are as similar to the actual world as possible (identity with the actual world being the obvious limiting case of similarity). Since we can assume for present purposes that (CC) is true, it follows that either W_{wc} or W_{oc} is the actual world. For the sake of simplicity, I will provisionally assume that weak concurrentists (and commonsense) are correct to insist that there are genuine secondary causes; that is, I will assume that W_{wc} is the actual world and that W_{oc} is merely possible. Thus, we can characterize these two worlds as follows:

W_{wc} : The actual world. (CC) is true, but (O) is false; there are genuine secondary causes of (at least some) contingent events.

W_{oc} : As similar to the actual world (W_{wc}) as is compatible with (O)'s being true. God is the total and exclusive cause of every contingent event, and hence there are no genuine secondary causes.

The question, of course, is whether the assumption that there are secondary causes can be backed up with an adequate theory of secondary causation. We can now state the test simply:

- (14) Any adequate theory of *genuine* secondary causation must properly distinguish between W_{wc} and W_{oc} – that is, it must not only imply that W_{wc} does contain secondary causes but also that W_{oc} does not contain secondary causes.

A theory that fails this test obviously cannot serve Quinn's purpose of demonstrating that (CC) is compatible with genuine secondary causes. If a theory falsely implies that W_{oc} contains secondary causes, it cannot credibly claim to offer a definition of genuine causation; such a theory would not recognize occasionalism even if it were, so to speak, right in front of it. In the following three sections I will apply this test to each of the causal theories Quinn defends. In sections II and III, I will argue that the regularity and counterfactual theories fail the test, and in section IV, I will argue that any reductionist

theory of causation will fail for similar reasons. However, in section V I will argue that non-reductionist theories have the resources needed to pass the test.

II. Continuous Creation and the Regularity Theory

Let us begin by considering Quinn's simple regularity theory which, as I explained above, defines causation as follows:

- (6) i_1 's being F at t_1 is a cause of i_2 's being G at $t_1 + \Delta t$ iff:
- i. i_1 's being F at t_1 occurs
 - ii. i_2 's being G at $t_1 + \Delta t$ occurs
 - iv. for all t , if, for some x , x is similar to i_1 and x 's being F at t occurs, then, for some y , y is similar to i_2 and y 's being G at $t + \Delta t$ occurs.

Does the regularity theory pass the test I have proposed? I think it pretty clearly does not. We stipulated above that W_{oc} is as similar to the actual world (W_{wc}) as is compatible with God, rather than secondary causes, bringing about all the states or properties of things. As an omnipotent being, the task of creating a world that is a perfect qualitative replica of W_{wc} would pose no difficulty for God. Thus, W_{oc} will be qualitatively indistinguishable from W_{wc} , and hence the two worlds will contain precisely the same regularities. That means, of course, that the regularity theory will fail the test. For suppose that it correctly identifies a causal regularity in W_{wc} (say, that whenever a rock with a certain mass and velocity collides with a window, the window breaks); then, since W_{oc} will contain the very same regularity, the regularity theory will falsely report this as instance of secondary causation there. In general, any instance of secondary causation that the regularity theory correctly reports in W_{wc} , it will falsely report in W_{oc} as well.

This gives us,

- (15) The Regularity theory does not properly distinguish between W_{wc} and W_{oc} .

And hence,

- (16) The regularity theory is not an adequate theory of *genuine* secondary causation. [From (14) and (15)]

So premise (1*) of Quinn's overall defense of weak concurrentism is false; although (CC) and the regularity theory are formally consistent, the regularity theory is not a theory of *genuine* secondary causation.

III. Continuous Creation and the Counterfactual Theory

We have seen that the regularity theory fails the litmus test for adequate theories of genuine secondary causation. The next question we must address is whether the counterfactual theory fares any better. I will begin by summarizing the counterfactual theory Quinn defends. Next, I will consider an initially plausible, but ultimately unsatisfactory, case for thinking that the counterfactual theory does pass the test. Finally, I will argue that the counterfactual theory fails the test of properly distinguishing between W_{wc} and W_{oc} and that its failure is closely related to the failure of the regularity theory.

III-A. The Counterfactual Theory

The second theory Quinn discusses is a simple version of the counterfactual approach to causation popularized by David Lewis.¹² The hallmark of counterfactual theories is that they analyze causation in terms of counterfactual conditionals, which in turn are analyzed in terms of possible worlds.¹³ The basic gist of the counterfactual

¹² See Lewis (1973).

¹³ Quinn (1988 p. 62) assumes a standard possible worlds analysis of counterfactual propositions:

approach to causation is that causes make a difference: thus, whether two actual events are related causally boils down to the question of what *would have happened* (more specifically, what would *not* have happened) if the alleged causal event had not occurred. For example, to say that a gunshot caused the untimely death of Bambi's mother is to say, roughly, that if the gunshot had not occurred, then the untimely death of Bambi's mother would not have occurred.

That is the basic idea, but we need to get a little more precise. As Quinn presents the counterfactual theory, it analyzes the case of a lit match causing some water to be heated as follows:

- (17) The event of the water's being heated at a certain time *depends causally on* the event of the match's being lit slightly earlier iff:
- i. the match's being lit at a certain time occurs
 - ii. the water's being heated slightly later occurs
 - iii. the match's being lit at a certain time and the water's being heated slightly later are distinct events
 - iv. if the match's being lit at a certain time were not to occur then the water's being heated slightly later would not occur¹⁴

In its more general form the theory states that,

- (18) The event of i_2 's being G at $t_1 + \Delta t$ *depends causally on* the event of i_1 's being F at t_1 iff:
- i. i_1 's being F at t_1 occurs
 - ii. i_2 's being G at $t_1 + \Delta t$ occurs
 - iii. i_1 's being F at t_1 and i_2 's being G at $t_1 + \Delta t$ are distinct events

The proposition that if p were to obtain then q would obtain is true = *df* either (i) there are no possible worlds in which p obtains, or (ii) some possible world in which p obtains and q obtains is more similar to the actual world than any possible world in which p obtains and q does not obtain.

¹⁴ Quinn (1988) p. 63.

- iv. if i_1 's being F at t_1 were not to occur then i_2 's being G at $t_1 + \Delta t$ would not occur.¹⁵

Just as he did with the regularity theory, Quinn argues that this definition of causation is formally consistent with (CC).¹⁶ However, as we have seen, formal consistency with a definition of causation is not enough to demonstrate that (CC) is consistent with *genuine* secondary causes. If a theory offers a definition of genuine causation, it should be capable of distinguishing between W_{wc} and W_{oc} . Thus, the crucial question is whether the counterfactual theory passes the test of (14). Can it get things right when it comes to W_{oc} , or does it (falsely) imply that W_{oc} contains pairs of causally dependent events?

A point of clarification is in order before we proceed. The counterfactual analysis clearly could not be faulted for correctly implying that events in W_{oc} are causally dependent on divine volitions, so if divine volitions are events we must understand the question as restricted to pairs of events involving contingent individuals. What we want to know is whether the counterfactual account mistakenly implies that W_{oc} contains events causally dependent on events *other than* divine volitions. Thus, except where otherwise noted, subsequent references to pairs of events are implicitly restricted to events involving contingent individuals.

W_{oc} clearly contains pairs of events that satisfy conditions (i), (ii), and (iii) of (18), but it is less obvious whether any of these pairs would also satisfy (iv), the counterfactual

¹⁵ Quinn (1988) p. 63.

¹⁶ Moreover, although Quinn acknowledges that simple versions of the counterfactual account such as (18) are susceptible to some well-known counterexamples, he professes his confidence that the more sophisticated counterfactual analyses designed to avoid these counterexamples will also be consistent with (CC) as long as they start from similar definitions and assumptions. See Quinn (1988) p. 67.

condition. Among the pairs of events that satisfy the first three conditions, is there a pair, e_1 and e_2 , such that if e_1 were not to occur, e_2 would not occur? The answer to that question depends on what happens in the possible worlds most similar to W_{oc} in which e_1 does not occur. If e_2 does not occur in the nearest such world(s), then the counterfactual analysis gets W_{oc} wrong, but if e_2 does occur in those worlds, then the counterfactual analysis gets W_{oc} right.

III-B. A Failed Attempt to Pass the Test

There is an intuitively plausible line of reasoning for the conclusion that the counterfactual analysis does get W_{oc} right, and hence passes the test of (14). It begins by noting that the fact that God is the total and exclusive cause of everything that occurs in W_{oc} seems to be a very important feature of that world – a feature that all the worlds most similar to W_{oc} would share. That is, since W_{oc} is an occasionalist world, all of the worlds most similar to W_{oc} will be occasionalist worlds as well. Moreover, in occasionalist worlds, events are directly related only to God; thus, the occurrence or non-occurrence of one event has no direct connection to the occurrence or non-occurrence of any other. So among occasionalist worlds, it seems natural to suppose that comparisons of overall similarity should be a simple matter of setting two worlds side-by-side and counting how many events they share in common and how many events God brings about in one but not in the other.

Consider two worlds, W_1 and W_2 , defined as follows:

W_1 : exactly the same as W_{oc} , with the exception that God does not bring about e_1 .

W_2 : exactly the same as W_{oc} , with the exception that God does not bring about either e_1 or e_2 .

Judged simply by the events God brings about in them, W_1 would seem to be more similar to W_{oc} than W_2 is. If that is right, then the counterfactual account of causation correctly implies that in W_{oc} , e_1 is not causally dependent on e_2 because they do not satisfy condition (iv). Thus, the counterfactual analysis seems to have the resources for getting W_{oc} right, and so it appears to pass our litmus test for theories of genuine secondary causation.

Unfortunately, this line of reasoning is flawed. For one thing, it is a mistake to think that similarity among occasionalist worlds would simply be a matter of tallying up the number of differences in the events God brings about. There are other significant respects in which occasionalist worlds might differ. For example, suppose that e_1 and e_2 fall under certain event-types, Type-1 and Type-2 respectively; moreover, suppose that in W_{oc} God determines to bring about a Type-2 event immediately following every Type-1 event. In that case, the claim that W_1 is more similar to W_{oc} than W_2 is should strike us as less plausible, for W_2 is compatible with such a divine determination, while W_1 is not. Thus, similarity comparisons for occasionalist worlds would need to take into consideration not only what events God brings about, but also how God determines which events to bring about. And this makes it far less likely that the counterfactual theory will pass the test of properly distinguishing between occasionalist and non-occasionalist worlds.

Secondly, there is another, much deeper flaw in the above reasoning. The fundamental difficulty is that it appeals to causal facts about the various worlds in order to make judgments of overall similarity between them. But since the counterfactual theory analyzes causation in terms of counterfactuals, and analyzes counterfactuals in

terms of overall similarity between worlds, it cannot appeal to facts about causation to make those similarity judgments. To do so would be viciously circular.¹⁷ Thus, I conclude that the above reasoning fails to demonstrate that the counterfactual theory can pass the test of (14).

III-C. Why the Counterfactual Theory Fails the Test

The notion of overall similarity between worlds clearly plays a crucial role in the counterfactual theory of causation. I think that a closer look at this aspect of the theory will reveal that the counterfactual theory is incapable of properly distinguishing between W_{wc} and W_{oc} . More specifically, I will argue that the account of overall similarity needed to produce the correct implications for W_{wc} will yield the wrong implications for W_{oc} .

Let us suppose that e_1 and e_2 are the following events: $e_1 = \text{one billiard ball's striking another}$, and $e_2 = \text{the second billiard ball's rolling away from the first}$. We have stipulated that W_{wc} (the actual world) contains genuine secondary causes, so we may suppose that in W_{wc} e_1 causes e_2 . If the counterfactual analysis is correct, that means that the worlds most similar to W_{wc} in which e_1 does not occur are worlds in which e_2 does not occur either. What account of similarity among worlds would give this result? It cannot be an account that simply tallies the number of differences between the events in the worlds, for then a world in which e_1 did not occur but e_2 did would be more similar. So an adequate account of similarity must take some other factor(s) into account as well. We have already seen that causal facts are off limits; so what other facts can enter into consideration? The only obvious candidates are facts about the regularities that obtain in

¹⁷ This point is noted by Lowe (2002) pp. 186-8.

various worlds.¹⁸ For example, if in W_{wc} events of Type-2 are always preceded by events of Type-1, then other things being equal, we might expect the same regularity to obtain in the worlds nearest to W_{wc} . Since e_1 and e_2 fall under such event types, an approach to similarity that factors in such regularities would yield the right result for W_{wc} – i.e. it will imply that e_2 is causally dependent on e_1 .

But does this approach to similarity get things right when it is applied to W_{oc} ? That is very doubtful. As we already saw when we discussed the regularity theory, all of the events and regularities found in W_{oc} are found in W_{wc} as well. So if the counterfactual analysis yields the correct result in W_{wc} (viz., that e_2 is causally dependent on e_1), then it seems that it will unavoidably yield the wrong result in W_{oc} – that is, it will (falsely) imply that e_2 is causally dependent on e_1 there as well.

Of course, things are somewhat more complicated in W_{oc} because it contains additional events and regularities that are not included in W_{wc} . Since every event in W_{oc} is brought about by a divine volition, there will be a divine volitional event that corresponds to each regular event. That is, corresponding to e_1 , there will be event v_1 , where $v_1 =$ *God's willing that e_1 occur*; corresponding to e_2 , there will be event v_2 , where $v_2 =$ *God's*

¹⁸ Lewis (1973) treats the similarity relation as primitive, noting that the relevant factors are “many and varied” (p. 560). However, the two factors he specifically draws attention to are closely related to the factors I have mentioned above; corresponding to my similarities among the events that occur, Lewis speaks of “similarities in particular matters of fact”, and corresponding to my similarities in the regularities that obtain, Lewis speaks of “similarities of law.” According to Lewis, these factors “trade off against” each other; considerations of similarities in the laws or regularities are crucial, although they must be weighed against similarities in the particulars. In Lewis (1979, p. 472), he offers a more specific ranking (from most to least important) of various types of similarity: (1) “avoid big, widespread, diverse violations of law;” (2) “maximize the spatiotemporal region through which perfect match of particular fact prevails;” (3) “avoid small, localized, simple violations of law;” and (4) “secure approximate similarity of particular fact.” The fourth type of similarity is, says Lewis, “of little or no importance.”

willing that e_2 occur; and so on. Furthermore, for any event-types and regularities that obtain among the regular events, corresponding event-types and regularities will obtain among the divine volitional events. If e_1 and e_2 are instances of a lawful regularity, then v_1 and v_2 will instantiate a corresponding regularity. There will also be regularities between the divine volitional event-types and regular event-types – e.g. events of the type under which e_1 falls will always be preceded by (or simultaneous with) events of the type under which v_1 falls.

However, although these additional events and regularities complicate matters in W_{oc} , they do not provide the counterfactual analysis with the means of getting W_{oc} right. To see why, we should observe that the extra divine volitional events that are present in W_{oc} (and the regularities that obtain between them) are like doppelgangers of the events and regularities present in W_{wc} – they mimic them exactly. As a short-hand way of making this point, I will refer to occasionalist worlds related to non-occasionalist worlds in this way as doppelganger worlds – e.g. W_{oc} is W_{wc} 's doppelganger world. The problem the counterfactual theory faces is that the worlds most similar to W_{wc} and W_{oc} will correspond to each other just as W_{wc} and W_{oc} do. That is, let W_{wc}^* name the nearest world to W_{wc} in which e_1 does not occur; then the nearest world to W_{oc} in which e_1 does not occur, call it W_{oc}^* , will be W_{wc}^* 's doppelganger world. W_{oc}^* will contain the same non-divine volitional events that W_{wc}^* contains, plus all of their divine volitional doppelganger events. So if the counterfactual theory has the (true) consequence that e_2 is causally dependent on e_1 in W_{wc} , it will also have the (false) consequence that e_2 is causally dependent on e_1 in W_{oc} .

That is all quite technical, but here is a slightly simpler way of putting the problem. Many occasionalist worlds perfectly replicate the events and regularities found in non-occasionalist worlds. The occasionalist worlds will also contain an extra set of divine volitional events that closely mimic the regular events. In an occasionalist world, only the divine volitional events are true causes, but the counterfactual theory is incapable of recognizing this fact because it has no means by which to separate the genuinely causal regularities from the non-causal ones. For example, it has no way of recognizing that v_2 (and not e_1) is the true cause of e_2 in W_{oc} .¹⁹ In hindsight, this failure

¹⁹ It might be objected at this point that I have too quickly dismissed all causal facts from consideration. After all, Quinn's attempt to marry (CC) with the counterfactual theory involves accepting two disparate kinds of causal relations. The primitive necessitarian *bringing about* relation that holds between divine volitions and the events they bring about – e.g. between v_1 and e_1 – and the counterfactual dependence relation that holds between events involving contingent individuals. Perhaps facts about where the primitive *bringing about* relation obtains could be included in comparisons of overall similarity between worlds without falling into a vicious circle. In other words, perhaps the only causal facts that are off limits are the causal facts the theory is intended to analyze – namely, facts about secondary causation.

That may be right, but even if it is it cannot solve the counterfactual theory's problems. The counterfactual theory has the false consequence that e_2 is causally dependent on e_1 in W_{oc} because of the regularities that e_1 and e_2 exemplify. Including facts about divine causation in the similarity comparisons would in no way change or eliminate those regularities. Of course, one could always rig the theory's definition of causation in a way that would make facts about divine causation more helpful. For example, (18) could be modified as follows:

- (18*) The event of i_2 's being G at $t_1 + \Delta t$ *depends causally on* the event of i_1 's being F at t_1 iff:
- i. i_1 's being F at t_1 occurs
 - ii. i_2 's being G at $t_1 + \Delta t$ occurs
 - iii. i_1 's being F at t_1 and i_2 's being G at $t_1 + \Delta t$ are distinct events
 - iv. if i_1 's being F at t_1 were not to occur then i_2 's being G at $t_1 + \Delta t$ would not occur
 - v. i_2 's being G at $t_1 + \Delta t$ was not *brought about* by a divine volition.

seems predictable. After all, we have already seen that the regularity theory does not properly distinguish between real causes and occasional causes; since the counterfactual theory depends upon regularities in order to make comparisons of overall similarity, we should not be surprised to learn that it fails in a similar way.

Continuous creationists who are attracted to the counterfactual theory may wish to propose some other approach to similarity among worlds, but they have a rather difficult task ahead of them. An adequate account of similarity must manage to have the right causal implications for W_{wc} , without yielding the wrong implications for W_{oc} . The problem is that, apart from the causal facts, W_{wc} and W_{oc} parallel each other too closely. Since causal facts cannot enter into the similarity comparisons, the prospects for finding an adequate account of similarity look terribly grim. Thus, I think we can reasonably conclude that,

- (19) The counterfactual theory does not properly distinguish between W_{wc} and W_{oc} .

And hence,

- (20) The counterfactual theory is not an adequate theory of *genuine* secondary causation. [From (14) and (19)]

So premise (2*) of Quinn's overall defense of weak concurrentism is also false; although (CC) and the counterfactual theory are formally consistent, the counterfactual theory does not offer a theory of *genuine* secondary causation. It is, at best, a theory of *occasional* causes.

(18*) would correctly describe W_{oc} as an occasionalist world, and so it would pass our litmus test for theories of causation. However, it accomplishes this only by adding a condition that seems objectionably ad hoc.

IV. Continuous Creation and Reductionism

Before moving on to consider whether Quinn's necessitarian theory fares any better than the regularity and counterfactual theories, I want to pause briefly and draw a more general conclusion from the arguments to this point. We have seen that both the regularity and the counterfactual theories fail the test of (14) because neither theory is capable of properly distinguishing between occasionalist and non-occasionalist worlds. These two theories are prominent examples of the more general reductionist approach to causation that has dominated ever since Hume; what I want to suggest now is that *any* reductionist theory of causation will fail the test of (14).

What I mean by a reductionist theory of causation is a theory that attempts to define causation entirely in terms of non-causal features of the world. The regularity theory, for example, attempts to reduce causation to non-causal regularities, or "constant conjunctions," and the counterfactual theory attempts to define it in terms of counterfactual dependence and ultimately, similarity between worlds. Why did both of these theories fail the test of (14)? Why were they incapable of properly distinguishing between W_{wc} and W_{oc} ? Simply put, the reason they both failed is that in terms of their non-causal features, W_{wc} and W_{oc} resemble each other far too closely. The non-causal features of the world that the regularity and counterfactual definitions of causation appeal to are found in both worlds. Furthermore, I do not see any reason to think that this problem is peculiar to these two reductionist theories. It seems that *whatever* non-causal features a reductionist theory appeals to will be equally present in both W_{wc} and W_{oc} ; thus, any reductionist theory that manages to get W_{wc} right is bound to get W_{oc} wrong and hence, bound to fail the test of (14). The moral to be drawn is that any attempt to

reconcile (CC) with a reductionist theory of causation will fail for essentially the same reason.

If this is correct, then only a non-reductionist approach to causation holds any hope for reconciling (CC) with genuine secondary causes. Contrary to what Quinn suggests, continuous creationists clearly have a vested interest in the outcomes of current debates about causation. That can hardly be considered good news, but I do not think it is especially bad news either. For one thing, reductionist theories of causation and laws of nature have not fared well in recent years anyway, and that for reasons quite independent of theological concerns about continuous creation and occasionalism. Although the reductionist program still has many advocates, an increasing number of prominent voices are urging that it is broken beyond repair and should be abandoned in favor of non-reductionist approaches to causation and laws.²⁰ The tides seem to be changing – non-reductionism on its way in and reductionism headed out – and so if continuous creationists should be forced to cast their lots with one side or the other, non-reductionism seems to be a safer bet. Furthermore, in hindsight it seems that the attempt to wed (CC) with reductionist theories of secondary causation was fated to produce an unhappy marriage. The reductionist approach to causation is attractive only insofar as our robust commonsense notion of causation – i.e., as involving real power, production, and/or necessitation – is thought to be fundamentally misguided. But adherents of (CC)

²⁰ These voices include: Harré & Madden (1975); Anscombe (1975); Dretske (1977); Tooley (1977), (1987) and (1990); Armstrong (1983) and (2004); Freddoso (1986); Cartwright (1994) and (1997); Swinburne (1997); O'Connor (2000), esp. ch. 4; and Ellis (2002). It is perhaps no coincidence that a number of scholars have recently begun to question whether Hume, the father of reductionism, was really a reductionist after all (see note 8 above).

have little reason to think that since (CC) itself invokes a robust realist approach to divine causation. The marriage of such disparate accounts of divine and secondary causation seems ad hoc at best, and if the arguments of the preceding sections are correct, then their differences are truly irreconcilable. Since (CC) invokes a non-reductionist account of divine causation, a similarly robust account of secondary causation would seem to be a much more natural match.²¹ Thus, it is time to take a closer look at the non-reductionist necessitarian theory.

V. Continuous Creation and non-Reductionist Theories

So far we have discussed the regularity theory and the counterfactual theory. It has been clear (I hope) that these definite descriptions – e.g. “*the* regularity theory” – are only convenient simplifications. In reality, there are numerous regularity and counterfactual theories, most of them subtle variations upon the simple versions we have examined. The particular theories we considered have essentially served as “family representatives.” But as we now turn our attention to non-reductionist causal theories, the differences are even greater. To make the discussion more manageable, I will focus primarily upon the particular non-reductionist theory Quinn discusses – the necessitarian theory. Although non-reductionist theories of causation constitute a rather diverse family, they nevertheless share common features that allow the necessitarian theory to serve as their family representative. I will explain why below.

²¹ Here I am rejecting the common wisdom that opposites attract. At least in theoretical marriages, opposites tend to resist each other.

V-A. Quinn's Necessitarian Theory.

Even among the non-reductionist causal theories that can be broadly categorized as necessitarian there are differences that are, in some instances, more substantial than subtle. Nevertheless, for our purposes it will be preferable to avoid getting bogged down in too many details and so I will focus upon Quinn's simple, generic necessitarian theory. Quinn states his theory in terms of a modified version of the *bringing about* relation used in (CC). The standard version of that relation is marked by the characteristics of *totality*, *exclusivity*, *activity*, *immediacy*, and *necessity*; but in order to render it more suited to secondary causes, Quinn takes away the characteristic of *immediacy*. (Secondary causes often bring about effects, not immediately, but by means of causal chains and/or by using other things as causal instruments.) To explicitly mark this difference from the various other *bringing about* relations we have discussed, I will refer to this modified version of the relation as *brings about*₃.

The generic necessitarian theory analyzes the example of a lit match heating some water as follows:

- (21) The match's being lit and being such that *C* at a certain time *brings about*₃ the water's being heated slightly later.

Quinn explains that the '*C*' represents whatever additional conditions are required "to ensure the presence of the marks of totality and exclusivity"²² – for example, *C* might include conditions specifying that there is an adequate supply of oxygen, that the match and the water are within a specified proximity of each other, etc. However, somewhat

²² Quinn (1988) p. 68.

confusingly, Quinn includes no such condition when he states his necessitarian theory in its general form:

$$(22) \quad i_1\text{'s being } F \text{ at } t_1 \text{ brings about}_3 i_2\text{'s being } G \text{ at } t_1 + \Delta t.$$

Perhaps the absence of condition *C* in (22) is an accidental omission, or perhaps Quinn intends that any conditions needed to ensure totality and exclusivity will simply be built into the predicate *F*. For present purposes, I will assume the latter explanation.

V-B. Why Quinn's Necessitarian Theory Passes the Test

Just as he did for each of the previous theories, Quinn argues that this necessitarian definition of causation is formally consistent with (CC). But can the necessitarian theory pass the test of (14)? That is, can it properly distinguish between an occasionalist world (W_{oc}) and a weak concurrentist world (W_{wc})? Yes, it can, and the reason is really quite simple: unlike reductionist theories, which attempt to analyze causation in terms of more basic non-causal facts, the necessitarian theory takes causal facts to be fundamental features of the world. Quinn's version of the theory posits *brings about*₃, a primitive causal relation that obtains between secondary causes and their effects. Since none of the events (or states of affairs) in W_{oc} will stand in this relation to each other, Quinn's necessitarian theory will correctly identify W_{oc} as an occasionalist world, devoid of secondary causes.

V-C. Why non-Reductionist Theories in General Pass the Test

Moreover, this is not merely a convenient or contrived consequence of Quinn's particular theory. Although the details will differ from case to case, any non-reductionist theory will take causal facts to be in some sense primitive. Some versions, for example, take laws of nature to express a primitive (although perhaps contingent) modal

relationship between two universals – i.e. *being an F necessitates being a G*. Other versions take laws of nature to obtain (to the extent that they do obtain) in virtue of the more fundamental fact that individuals possess irreducible causal powers, or dispositions, or capacities: that is, the primitive causal powers (capacities, dispositions) of individuals give rise to lawful regularities. But however the details of a non-reductionist theory are filled in, the fact that two events in W_{wc} are related to each other as cause and effect will express or be explained by some sort of primitive causal fact about W_{wc} . If a non-reductionist theory of causation is correct, then no matter how perfectly W_{oc} may mimic W_{wc} 's non-causal features, they will differ vastly when it comes to their primitive causal features – universals in W_{oc} will not stand in a primitive modal necessitation relationship to each other; individuals in W_{oc} will not possess any primitive causal powers; and so on. Thus, regardless of exactly how the details get fleshed out, it seems that non-reductionist theories of causation will have the resources to properly distinguish between W_{wc} and W_{oc} . They pass our litmus test for theories of genuine secondary causation.

V-D. Is Secondary Causation still too Mysterious?

Non-reductionist theories of causation are both formally consistent with (CC) *and* capable of distinguishing between *real* and *occasional* causes, and that is certainly good news for weak concurrentists. On the other hand, the case for weak concurrentism is not nearly as strong Quinn originally set out to prove. Weak concurrentists cannot remain neutral in the debate over the nature of causation; rather, they are forced to adopt a particular approach to causation. As I noted at the beginning of the chapter, that places an added burden upon them to defend the truth or plausibility of that approach.

So just how plausible are the non-reductionist versions of weak concurrentism?

To make the question more manageable, let us focus it more narrowly: just how plausible is Quinn's necessitarian version of weak concurrentism? Before we try to answer that question, perhaps it would help to remind ourselves of the problem that got us started down this path in the first place. Recall from the end of Chapter Seven how Quinn initially explained the problem continuous creation poses for secondary causation. According to (CC), God is the sole and total cause of the existence of every contingent being at every moment. Thus, the fact that I exist right now and am typing on my computer has no direct bearing upon whether I or my computer will exist a moment from now. What exists at any given moment is entirely up to God, so I will exist a moment from now if, and *only* if, God causes me to exist then – same goes for my computer and every other contingent thing. So where do secondary causes enter the picture? As Quinn noted, “this appears to leave little or no room for what happens at one time-slice to exercise any influence on what happens at any other by means of a path that remains wholly internal to the created realm.”²³ For example, I would like to believe that the actions I am performing right now will cause certain words and sentences to be recorded on my laptop's hard drive at later times. But if God must repeatedly cause my computer to exist at every subsequent moment, then it is hard to see how anything other than God can determine the state of its hard drive at those moments.

Does the necessitarian theory offer a plausible solution to this problem? In truth, the “solution” it offers seems exceedingly mysterious. According to Quinn's necessitarian theory, events that occur at one moment (e.g., i_l 's being F at t_l) are related

²³ Quinn (1988) p. 55.

to events that occur at subsequent moments (e.g., i_2 's being G at $t_1 + \Delta t$) by *brings about*₃, a primitive relation of causal necessitation. But in light of the doctrine of continuous creation, is this alleged necessitation credible? In order for i_2 to be G at $t_1 + \Delta t$, it must *exist* at $t_1 + \Delta t$. But of course, i_1 has absolutely nothing to do with whether or not i_2 will exist at $t_1 + \Delta t$ – that depends entirely upon whether God chooses to conserve i_2 when that moment arrives. If i_1 's being F at t_1 does not even necessitate i_2 's *existing* at $t_1 + \Delta t$, how could it possibly necessitate i_2 's being G at $t_1 + \Delta t$?

An initially attractive thought is that weak concurrentists could overcome this problem by claiming only that secondary causes *conditionally necessitate* their effects. In other words, perhaps what i_1 's being F at t_1 necessitates is something like the following conditional: *if God conserves i_2 at $t_1 + \Delta t$, then i_2 will be G at $t_1 + \Delta t$.*²⁴ Unfortunately, this does not seem to be an adequate solution either. Suppose God has some reason to want i_2 to be non- G (or to have another property that cannot be co-instantiated with G), and so God wills, “let i_2 exist and be non- G at $t_1 + \Delta t$.” In that case, i_2 would not be G at $t_1 + \Delta t$, notwithstanding i_1 's having been F at t_1 . Thus, i_1 's being F at t_1 does not even conditionally necessitate i_2 's being G at $t_1 + \Delta t$. Of course, this problem could be remedied by adding yet another condition. Perhaps what i_1 's being F at t_1 really necessitates is something like the following conditional: *if God conserves i_2 at $t_1 + \Delta t$, and if God does not actively prevent i_2 from being G at $t_1 + \Delta t$, then i_2 will be G at $t_1 + \Delta t$.*

²⁴ Or, equivalently, perhaps we are to understand the condition that God will conserve i_2 at $t_1 + \Delta t$ as being built into the predicate F . (Recall that we are supposing that F includes Quinn's original catchall condition C .) Of course, this renders F a rather awkward predicate, as it treats *being such that God will conserve i_2 at $t_1 + \Delta t$* as a property of i_1 .

Perhaps some such conditional version of the necessitarian theory would be technically adequate, but it would also be implausible for at least two reasons. First, with each added condition, the theory sounds increasingly ad hoc and loses credibility. But even more importantly, the alleged necessitation remains deeply mysterious. The necessitarian version of weak concurrentism claims that things happening in the world right now can somehow *necessitate* that *if* God chooses to cause some individual to exist a short time from now, then it will possess certain specific properties (as long as God does not prevent it from possessing them). But how could anything happening now necessitate that? Of course, it is conceivable that God has determined to always bring about the existence of an individual that is *G* a short while after bringing about an individual that is *F*, and if God has determined to act in such a way, then i_1 's being *F* at t_1 might necessitate i_2 's being *G* at $t_1 + \Delta t$. However, the former event would necessitate the latter only as its *occasional* cause, and not as its *genuine* productive cause. Obviously, this is not an explanation of the necessitation that weak concurrentists can accept! The problem is that there simply does not seem to be any other plausible explanation.

So far the necessitarian version of weak concurrentism has not looked very promising. However, I think it might fare better if we reconsider it in light of the distinction between the moment-by-moment and the interval interpretations of (CC). The criticisms I have just raised against the necessitarian view have generally presumed the moment-by-moment interpretation. For example, when I questioned how i_1 's being *F* at t_1 could possibly necessitate i_2 's being *G* at $t_1 + \Delta t$, I assumed that at t_1 it was an open question whether i_2 would exist at $t_1 + \Delta t$. In other words, I assumed that it depends upon what God chooses to do when $t_1 + \Delta t$ rolls around. If God will have to step in again at $t_1 +$

Δt to cause everything to exist, then it is very difficult to see how anything happening at t_1 could causally necessitate their having the properties they have. Thus, at least on the moment-by-moment interpretation of continuous creation, it is hard to avoid the conclusion that there are no genuine secondary causes and that Malebranche was right to insist that the doctrine leads to occasionalism.

But the interval interpretation seems at least somewhat less problematic. According to this interpretation, God's creating and conserving an individual is simply a matter of forming a single volition – e.g. “let Speck exist throughout $t \rightarrow t'$.” Thus, whether or not Speck will exist at a later moment is not an open question – it has already been settled – and this helps the necessitarian theory of causation to seem a little more plausible. Imagine a toy universe in which i_1 and i_2 are the only individuals. According to the interval interpretation, God simply wills that they exist (perhaps with certain causal powers, or dispositions, or something of the sort) throughout some interval of time. What happens during that interval is left to be determined by interactions between them. In other words, God's creation and conservation of this toy world might consist of forming a single volition. Something roughly like: “let i_1 exist with causal powers a , b , and c throughout $t \rightarrow t'$, and let i_2 exist with causal powers d , e , and f throughout $t \rightarrow t'$.”²⁵ Thus, God does not step in at each moment to cause i_1 and i_2 to exist; their existence at each moment of the interval is guaranteed by the single volition that has already been decreed (either timelessly, or in the past).

²⁵ According to (CrD), God's volition would also need to specify exactly which properties they possess at t . For present purposes we can ignore this complication.

I do not mean to suggest that the interval interpretation magically renders the necessitarian approach to secondary causes entirely un-mysterious. However, what I do mean to suggest is that on the interval interpretation, the doctrine of continuous creation is no longer the *source* of the mystery. In my opinion, necessitarian theories of causation are, by their very nature, somewhat mysterious (a point I will return to in a moment); but unlike the moment-by-moment interpretation, the interval interpretation of continuous creation does not, as far as I can see, *add* to the mystery. It leaves the necessitarian version of weak concurrentism no more (nor less) mysterious than the necessitarian theory of causation is on its own. If that is right, then the plausibility of this version of weak concurrentism rests solely upon the plausibility of the necessitarian approach to causation.

So how plausible is the necessitarian approach? As I suggested above, it is somewhat mysterious by its very nature – indeed, this point applies to non-reductionist theories quite generally. I say this because non-reductionist theories all posit the existence of something – *bringing about* relations, causal powers, dispositions, modal relations between universals, *something* – that is primitive and fairly obscure. Hume (and Malebranche before him) offered rather forceful criticisms of such notions. As they explained, we simply cannot perceive any necessary connection between natural causes and their effects, nor do we have clear ideas of notions such as causal powers or dispositions. So why has there been a revival of non-reductionist theories in recent years? It is not that we suddenly evolved a new faculty for perceiving necessary connections or that we now have a clearer notion of causal powers. Rather, the driving force of this revival has been a growing conviction that the problems facing the reductionist program

are irremediable. In other words, there simply does not seem to be any promising alternative to positing such things. We have tried to analyze causation in terms of less mysterious features of the world – spatial and temporal contiguity, regularities, counterfactual dependence,²⁶ and so on – but these efforts seem to have proven futile. Thus, returning to the non-reductionist approach is, in a sense, a matter of giving in and embracing the mystery of causation. Philosophers are generally disposed to resist mysteries, not embrace them, but in light of the persistent failures of reductionism, the non-reductionist approach to causation seems to be our best option – even if it is mysterious.

Thus, non-reductionist versions of weak concurrentism such as the necessitarian version seem to have a lot going for them. They are (a) formally consistent with (CC), (b) capable of distinguishing between genuine and merely occasional causes, and (c) seem, at least at the moment, to offer the most plausible approach to causation. In short, they seem to offer a plausible weak concurrentist alternative to occasionalism. However, before I draw this chapter to a close, I want to note that in some respects, occasionalism still has the advantage. I suggested just above that even though they are mysterious, non-reductionist approaches to secondary causation are probably our best option. But this needs an important qualification: they are probably our best option, *assuming that there is genuine secondary causation*. There lies the catch. Given the present dialectic between weak concurrentism and occasionalism, it must be admitted that the mystery of non-reductionist secondary causation favors occasionalism over weak concurrentism. This

²⁶ Of course, counterfactual conditionals are fairly mysterious creatures in their own right. Whether they are any less mysterious than causation is perhaps open to debate.

seems to be the point of Plantinga's recent observation that occasionalism is "neater and cleaner" than weak concurrentism. He explains:

[T]he problem with secondary causation is the nature of this creaturely causality. What *is* this causation? And what kind of necessity (if any) goes with it? When God says "Let there be light," there is light; indeed, *necessarily*, when God says "Let there be light," there is light. Here the necessity is just metaphysical or broadly logical necessity, the same kind that is enjoyed by the truths of logic and mathematics. But what about the necessity that is supposed to go with creaturely causation? Suppose the cause does its thing; it is still possible, one thinks, that the effect may fail to occur. God, for example, could suppress the effect. Still, *some* kind of necessity seems to be involved here: *what* kind?²⁷

It seems likely that the kind of necessitation involved in secondary causation will always remain mysterious in comparison to the straightforward necessity involved in divine causation. And if that is right, it helps Malebranche's position to look somewhat more attractive.

Of course, weak concurrentists might respond that the rejection of secondary causation is simply too jagged a pill to swallow – "better to have mysterious secondary causation than no secondary causation at all!" All things considered, that may be the appropriate response. But we have found occasionalism to be an extremely difficult position to avoid; indeed, we have gone to great lengths seeking plausible alternatives, and we have had rather limited success. If the case *for* occasionalism is really that strong, maybe we ought to reconsider the assumption that it is a position we must avoid. What is so bad about it, anyway? I will briefly offer my take on that question in the concluding chapter.

²⁷ Plantinga (2005) p. 35. Cf. Plantinga (2007) p. 133, fn. 55.

VI. Conclusion

According to weak concurrentists, God and secondary causes cooperate by contributing to fundamentally different aspects of a total effect; God causes the *existence* of all contingent individuals, while secondary causes by themselves cause at least many of the *properties* of those individuals. I have argued in this chapter that reductionist theories of causation fail to properly distinguish between occasionalist and weak concurrentist worlds – that is, reductionist theories falsely imply that occasionalist worlds contain secondary causes. What follows, I have argued, is that non-reductionism is the only approach to causation open to weak concurrentists. In this concluding section, I will briefly do two things: first, I will note that this argument has some more far-reaching implications and secondly, I will note its relation to the discussion of persistence in Part II (Chapters Four and Five).

Although my goal in this chapter has been to determine what theory (or theories) of causation are open to weak concurrentists, it is worth noting that the preceding arguments can also be applied to many who are not weak concurrentists. Any theist, weak concurrentist or not, must acknowledge that occasionalist worlds are metaphysically possible – i.e. they must acknowledge that God could have created W_{oc} . Thus, assuming that an adequate theory of causation should accurately describe any possible situation, it follows that non-reductionism is the only legitimate approach to causation for theists. Indeed, even some non-theists are affected by this argument. Generally speaking, those who deny God's existence can be divided into two camps: those who believe the proposition *God exists* is necessarily false and those who believe it is only contingently false. Non-theists who acknowledge that God's existence is possible must also

acknowledge that occasionalist worlds are metaphysically possible; hence, the argument applies to them as well. In other words, anyone who acknowledges that theism is even possible must acknowledge that W_{oc} is possible, and anyone who acknowledges that is thereby committed to a non-reductionist approach to causation.

Finally, I need to tie up one loose end from the discussion of continuous creation and persistence in Part II. I argued in Chapter Four that continuous creationists cannot adopt property-causal worm theory because the doctrine of continuous creation renders causal relations between stages problematic. However, in the present chapter I have (at least to some extent) defended the compatibility of continuous creation and secondary causation. So does my argument here undermine my earlier criticism of property-causal worm theory? I do not think it does. In section V-D above, I argued that weak concurrentists should adopt the interval interpretation of continuous creation because secondary causation is objectionably mysterious on the moment-by-moment interpretation. But the interval interpretation of the doctrine does not comport well with a temporal parts ontology. On the interval interpretation, God does not will the existence of a succession of instantaneous individuals; rather, God wills the continued existence of a single individual – “let x exist throughout $t \rightarrow t'$.” So it seems that the only plausible weak concurrentist approach to secondary causation is one that demands a continuant ontology. Thus, the arguments of this chapter do not lend support to property-causal worm theory.

CONCLUSION

At the outset I described this dissertation as an attempt to understand and assess the traditional doctrine of divine conservation (which came to be identified with the doctrine of continuous creation). I hope it has achieved the goal of providing readers with a clearer understanding of continuous creation. Moreover, the preceding chapters have taken some important steps towards an overall assessment of the doctrine. I have argued that continuous creationists can answer each of the major objections that have been raised against their position, and that certainly seems to support a positive overall assessment. Thus, there is a sense in which continuous creation has been vindicated and its critics shown to be wrong.

But in reality, the task of assessing continuous creation has only just begun. Although the doctrine can be defended against objections, we have also seen that each criticism exacts a certain cost. Yes, continuous creation can be reconciled with persistence, but not with the theories of persistence offered by temporal parts theorists; continuous creationists are forced to accept the endurantist conception of persistence. Yes, continuous creationists can avoid committing themselves to occasionalism, but the costs here are even higher. In Chapter Seven I argued that weak concurrentism is the only plausible alternative to occasionalism, but it comes with a hidden fee: it requires a conception of the nature of particulars that can provide a metaphysical basis for the existence/property distinction. That means that continuous creationists are forced to reject

both nominalism and the bundle theory, and forced to accept something like either bare particulars or irreducibly structured substances. Furthermore, if the arguments in Chapter Eight are correct, weak concurrentists are also forced to accept the non-reductionist approach to secondary causation. Thus, it is impossible to fully assess continuous creation without assessing the total metaphysical package it comes bundled with: endurantism, non-reductionist causation, and your choice of bare particulars or structured substances. A seemingly straightforward task has turned into a rather complicated and overwhelming undertaking; an adequate assessment of that entire package could easily require several more dissertations – it certainly lies beyond the compass of this concluding chapter.

Of course, I could simply point out that each of the package's components has respected defenders, and thus that the package itself is certainly respectable. On the other hand, it must be admitted that continuous creationists have been painted into a rather small corner of metaphysics. But what are the alternatives? It goes without saying that continuous creationists who do not care for this package can challenge my arguments that the doctrine requires certain of its components. But assuming those arguments are correct, the options are really quite limited: continuous creationists can either accept the package, or else reject the fundamental commitments (i.e. persistence and secondary causation) that required it. I argued in Part II that rejecting persistence is not an option for theists because it is essential to many central doctrines and concepts of theistic religions. Thus, assuming that the arguments of Part II are correct, endurantism is a non-negotiable component of the bundle. However, in Part III I simply took it for granted that rejecting secondary causation (i.e. accepting occasionalism) is not an option. As I noted at the end

of Chapter Eight, since occasionalism has proven to be such a difficult position to avoid, and since it is “neater and cleaner” than weak concurrentism, perhaps continuous creationists should reconsider it.

In fact, in recent years a small handful of theists have revisited occasionalism, and some of them have come to the conclusion that it is far more plausible than it is often made out to be – many of the knee jerk reactions and objections to occasionalism simply are not compelling.¹ However, there is one objection that seems to me to be decisive: occasionalism is inconsistent with free will. The problem is not merely that it is incompatible with a robust libertarian conception of free will; rather, I mean that occasionalism is incompatible with free will of *any* kind, even compatibilist or soft determinist varieties. Libertarians and compatibilists may disagree over whether free actions require alternate possibilities, but they all agree that in order for an agent to act freely, that agent has to cause something. Occasionalism denies that any agent (other than God) ever causes anything, and so it is incompatible with creaturely freedom of any kind. Since that is not a consequence theists can accept, occasionalism is unacceptable.

Of course, this criticism assumes that the occasionalism in question is pure or unrestricted. As I suggested in Chapter Six, occasionalism would be a less problematic and more attractive position if it could somehow be restricted so that it did not encompass human choices.² But I also noted there that the case for such restricted or impure forms of occasionalism is incredibly weak – many of the arguments for occasionalism seem to be

¹ See, in particular, McCann & Kvanvig (1991); Vallicella (1996) and (1999); and Freddoso (1988). For a recent critique of occasionalism, see Rogers (2001).

² Cf. Rogers (2001) p. 365.

such that they either support it in its pure, unrestricted sense or not at all. This certainly seems to be true of Malebranche's continuous creation argument. If occasionalism follows from continuous creation, and if God continuously creates *every* contingent individual, then it is hard to see how occasionalism could be restricted. The problem is especially acute for physicalists who take mental states (including volitions) to be identical with physical states. Suppose that my volitions are identical with certain physical states of my brain. Then if God creates and conserves my brain with determinate properties, God is the sole and total cause of all my mental states; I do not cause any of them and hence, I am not free.

Non-reductive physicalism may have a better chance of restricting occasionalism. Non-reductive physicalists deny that mental states are identical to physical states, insisting instead that they *supervene upon* physical states. That suggests a strategy for blocking God's responsibility for our mental states: perhaps the principles of creation and conservation with determinate properties, (CrD) and (CoD), could be restricted to the *physical* properties/states of individuals. In other words, when God creates and conserves my brain, all God does is cause it to exist with determinate *physical* properties; my mental states are not directly brought about by God, but rather supervene upon my brain's physical states. However, this strikes me as a desperate strategy. Besides the problem that the notion of supervenience is notoriously vague (it is far from clear exactly what the claim that mental states supervene upon physical states amounts to), there is the more serious problem that non-reductive physicalism seems to be incompatible with mental causation. This is the point of Kim's famous causal exclusion argument, which

can be roughly summarized as follows.³ At a bare minimum, we need mental events to be able to cause other mental events. Suppose, then, that M_1 causes M_2 (fig. 1):

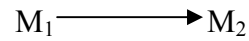


Figure 1.

According to non-reductive physicalism, M_2 supervenes upon a physical event P_2 , and that means that M_1 is at most an overdetermining cause of M_2 (fig. 2).

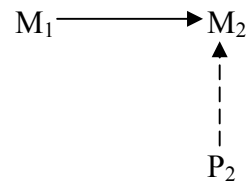


Figure 2.

But this is unacceptable – we do not want mental causes to be mere overdetermining causes. Perhaps then we should say not that M_1 causes M_2 , but rather that it causes M_2 's supervenience base, P_2 (fig. 3):

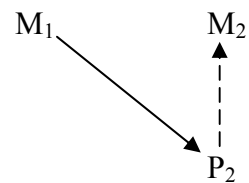


Figure 3.

³ Kim has developed and defended this argument in numerous places; see Kim (1993), (1998), and (2005).

However, physicalists believe that physical events are caused by other physical events; in the case of P_2 , M_1 's supervenience base, P_1 , is the most likely candidate (fig. 4):

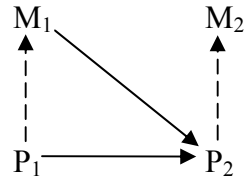


Figure 4.

But since we do not want mental events to be mere overdetermining causes, P_1 's causing P_2 excludes M_1 from being its cause (fig. 5):

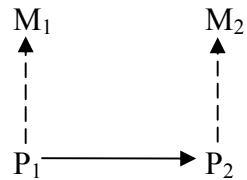


Figure 5.

The result is that mental events appear to be nothing more than epiphenomena – impotent byproducts of underlying physical processes; thus, non-reductive physicalism has a hard time accounting for mental causation even apart from worries about occasionalism. The situation can only get worse once occasionalism enters the picture, for if the impure version of occasionalism (restricted to only *physical* properties) is correct, there is simply a further underlying cause (namely, *God*) that excludes P_1 from being P_2 's cause (fig. 6):

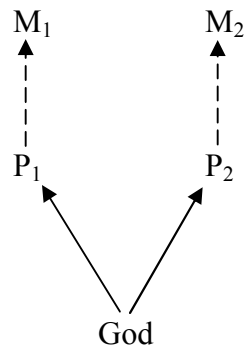


Figure 6.

For non-reductive physicalists who are also occasionalists, physical events are themselves epiphenomenal and mental events are second-order epiphenomena. There is simply no opportunity for secondary (or “horizontal”) causes of any kind (mental *or* physical) to make non-superfluous contributions. Thus, although non-reductive physicalists may be able to restrict occasionalism, it does not seem as though this strategy holds any promise for safeguarding mental causation and free will. Even if supervenient mental states (including volitions) are not caused directly by God, they cannot in any meaningful sense be described as free.

Does dualism fare any better? That is, can dualists plausibly restrict occasionalism in such a way that free will would be preserved? Although some of the Cartesians apparently thought so, it does not seem to me that dualism is of any help. Even if minds are immaterial souls, they are still contingent individuals and hence continuously created by God. Thus, if God creates and conserves things with determinate properties, it follows that God causes all the properties or states of immaterial minds no less than those of

material bodies.⁴ Regardless of one's position on the mind-body problem, there simply does not seem to be any plausible way of restricting occasionalism in a way that would make room for mental causation; thus, my criticism of occasionalism – that it is inconsistent with free will – stands. Since free will is essential to theism, continuous creationists cannot reject secondary causation; hence, if the arguments of Chapters Seven and Eight are correct, non-reductionist causation and a conception of individuals as either bare particulars or structured substances are also non-negotiable components of the continuous creation bundle.

Thus, I conclude that the entire bundle is non-negotiable – if my arguments have been correct, continuous creationists are forced to accept the entire package. Their only alternative is to reevaluate their commitment to continuous creation; in other words,

⁴ Quinn (1983, pp. 58, 64-5) makes an intriguing, but highly speculative, suggestion that might provide dualists who are occasionalists with a strategy for making room for free choices; he proposes that immaterial minds might be capable of acting instantaneously. The idea is that physical actions and changes all take time to perform because they involve motion; since minds are immaterial and hence, never in motion, perhaps they could act, or change, instantaneously. If that is right, then even if God conserves my mind in a particular mental state, perhaps I could instantaneously change that state. Suppose, for example, that in the moments leading up to *t* I am deliberating about whether to perform action A. Suppose further, that at *t* God conserves me still in a state of indecision regarding A. If minds are capable of acting instantaneously, then perhaps I can choose A precisely at *t* – instantaneously altering the state in which God conserved me at that moment.

As I said, the idea is highly speculative; moreover, I think it faces some significant obstacles. First, in order to be plausible it would need to take empirical and/or phenomenal evidence into account: does empirical/phenomenal evidence support the thesis that some mental acts are instantaneous? Second, it would need to address conceptual concerns: for example, are instantaneous mental acts consistent with the assumption that the mind is in some sense connected to and dependent upon a material body? Finally, even if those concerns can be adequately addressed, there is the further problem that the proposal appears to require rather unattractive alterations to logic. What, after all, would be the truth value of the statement, “at *t* I was in a state of indecision concerning A”? Is it *neither* true *nor* false? Then we would have to reject excluded middle. Is it *both* true *and* false? Then we would have to reject non-contradiction.

theists who do not care for this bundle of metaphysical views could always reconsider the “D-word” (I am referring to *deism*). For many theists, deism is an almost unthinkable position, and as a result, it is often dismissed more quickly than I think it deserves.⁵ Much of the reason for this is probably that deism is usually associated with its most extreme, pure form – that is, it is thought of as the view that God has been and always will be entirely uninvolved and uninterested in what happens in the created world. But as I noted in Chapter Seven, what I mean by deism is simply the view that things persist on their own without God’s needing to actively conserve them; although that view is compatible with pure deism, it does not entail it. It is also compatible with impure, restricted forms of deism; although impure deism would deny that God must constantly conserve the existence of creatures, it would nonetheless maintain that God is actively involved with the creation – answering prayers, performing miracles, and so on. The scriptures that support conservation/continuous creation are neither overwhelming in number nor entirely unambiguous, and it seems entirely possible that they could be interpreted in ways that carry less metaphysical baggage. Thus, some such impure form of deism may be a legitimate option for otherwise traditional theists who are dissatisfied with the metaphysical commitments of continuous creation.

⁵ One noteworthy exception is Kvanvig & McCann (1988); they argue at length that divine conservation is the only plausible explanation of persistence, and hence that deism is not a philosophically tenable position. Their argument is one that would-be deists will need to address.

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