Introduction

Leibniz writes "metaphysics is natural theology." This is especially true of his metaphysics of modality. For Leibniz, God's existence and nature are the ground of what's necessary and possible as well as what's actually and counterfactually the case. The aim of this book is to investigate Leibniz's metaphysics of modality and the way in which it is grounded in Leibniz's natural theology. The purpose of this introduction is to give an overview of the philosophical issues raised in the book.

The book can be naturally divided into three parts. The first two chapters are centered on arguments for the existence of God, with the ontological argument being the primary focus. The arguments I have chosen to discuss are those which (in the case of Descartes) say that he has the property of necessary existence, or (in the case of Leibniz) define God as a necessary being. The second part deals with the way in which necessity is extended in Leibniz's view to the world that God creates (Chapter 3) and with Leibniz's claim that there is a plurality of possible worlds (Chapter 4). The third part of the book examines Leibniz's views on God's conditional foreknowledge (Chapter 6) and his knowledge of counterfactuals (Chapter 7). In Chapter 5, I discuss Molina's theory of middle knowledge, which is the background against which Leibniz's views are set.

1

In contemporary philosophy of religion, versions of the ontological argument that appeal to modal notions, and make use of the semantic apparatus of possible worlds, are seen to hold the most promise. In particular, the possible worlds apparatus is seen as elucidating the concept of a necessary being, which is central to the ontological arguments of Descartes, Spinoza and Leibniz. The latter idea can be expressed by saying that a

necessary being is one which exists in all possible worlds. One of the results of my study is that the modal semantics used in contemporary ontological arguments does not adequately capture the reasoning of early modern philosophers, nor can it adequately express what they meant by saying that God is a necessary being. This is because the modal semantics used in contemporary ontological arguments is mute with respect to the question of what makes a necessary being necessary. Descartes, Spinoza and Leibniz all hold that something can exist in all possible worlds without being a necessary being, in the sense of the ontological argument.

The first chapter, on Descartes, is meant to provide some of the background for the discussion of Leibniz. Leibniz's version of the ontological argument is often framed by analysis and criticism of Descartes's. But the chapter is also meant to help make clear how Descartes's argument actually works. To that end it explores many aspects of Descartes's argument that do not make their way into Leibniz's discussion, for instance, Descartes's claim that God's omnipotence is what is ultimately responsible for his existence and what makes his existence necessary (or explains, in the idiom of contemporary modal semantics, why God exists in all possible worlds). This is not irrelevant to our reading of Leibniz. Rather, two broad interpretive claims will emerge from these chapters: (1) Descartes and Leibniz hold that God's existence, though necessary, requires an explanation; and (2) the explanation for God's existence involves an "ontological axiom" which expresses the fact that built into what occupies the fundamental level of reality is an intrinsic power (Descartes and Spinoza) or propensity (Leibniz) for existing. Or, to put it even more generally, reality favors existence over non-existence.

Leibniz's ontological argument appears to be a more recognizably modal version. Instead of using archaic-sounding Cartesian formulas, like "necessary existence is contained in the concept of God," Leibniz simply defines God as a necessary being. He then employs various modal principles to demonstrate his main contention, which he calls a "splendid theorem," that a necessary being exists if it is possible. The thing to notice about the Splendid Theorem is that it appears to be formally equivalent to a logical consequence of Brouwer's axiom. And Brouwer's axiom figures in contemporary versions of the ontological argument. However, Leibniz's version of the ontological argument cannot be translated, without residue, by contemporary modal semantics. One reason is that Leibniz takes the Splendid Theorem to apply to God alone. He says that it is "the privilege of the deity" to be such that his existence follows from his mere possibility. However, the relevant principles of modal logic are indifferent

to whether we are talking about God or any other necessary thing. In a modal logic containing Brouwer's axiom, any necessary being is demonstrably such that its actual existence is implied by its possibility. For Leibniz, on the other hand, what makes God a necessary being, in the sense relevant to the ontological argument, is that he has the reason for his existence within himself. There may be other beings who exist in all possible worlds, but they won't be necessary beings in this sense. I develop this in Chapter 3.

I argue that the reason for God's existence is grounded in Leibniz's doctrine that possibles strive for existence, by their very nature. I take this doctrine to be an expression of the "ontological axiom" mentioned above. Leibniz connects this doctrine explicitly with the Principle of Sufficient Reason (PSR). He argues that if there were not an intrinsic exigency to exist on the part of possibles, then there would be no reason why there is something rather than nothing.

2

The second part of the book concerns the issues of the possibility and necessity of things other than God, specifically his creatures. Leibniz holds apparently incompatible doctrines, necessitarianism and the doctrine that there is a plurality of possible worlds. In Chapter 3 I argue that Leibniz was committed, throughout his career, to necessitarianism. I also develop a necessitarian reading of Spinoza. My reading of these two philosophers supports the thesis that Leibniz did not take necessitarianism to be Spinoza's error. Rather, where Spinoza goes wrong, according to Leibniz, is in denying that it's God's wisdom and goodness that explain why everything is necessary. In Chapter 4 I explore Leibniz's conception of possible worlds and place it in its natural-theological setting.

As I understand it, necessitarianism is the doctrine that everything actual is metaphysically necessary. I understand metaphysical necessity to be the strongest form of necessity. Much of Leibniz's philosophy seems to have necessitarian consequences. I will focus on the necessitarian consequences of Leibniz's theological doctrines. Leibniz holds that God chooses the best by his nature, that is, necessarily. This entails that whatever he creates exists necessarily. Therefore, everything which actually exists, necessarily exists.

Some commentators attribute a more limited view to Leibniz, according to which God actualizes the best of all possible worlds, *if he decides to actualize any world at all*. If the antecedent of this conditional is

contingent, then it's not metaphysically necessary, but only hypothetically necessary, that the best of all possible worlds is actual. The following argument provides philosophical justification for the thesis that God's decision to create anything at all is necessary. There is a sufficient reason for whatever God does. He has created, or, more precisely, actualized, the best of all possible worlds. Therefore, there is a sufficient reason for God's actualizing the best of all possible worlds. Two things have to be noticed about sufficient reasons. First, they are sufficient in the sense of entailing what they are reasons for. Second, they are sufficient in the sense that they *completely explain* what they are reasons for. They can neither contain brute facts, nor be brute facts themselves. Therefore they are wholly self-explaining, and so presumably necessary, necessitating explanations. This argument shows that God's decision to create must itself be necessary. And this completes our argument for Leibniz's necessitarianism.

The argument of Chapter 3 brings us back to themes developed in the second chapter. One is that he uses modal terms which cannot be adequately characterized in terms of the contemporary possible-worlds semantics which Leibniz is often credited with having inspired. Since we are concerned with Leibniz's ontology rather than his logic, we may confine our attention to necessity as it applies to the existence of things. Leibniz and Spinoza distinguish between two *ways* a thing's existence may be necessary. A thing is *intrinsically* necessary (my term), just in case its existence "follows from" its essence or possibility. Simply put, it's something whose existence could be demonstrated by the ontological argument. A thing is *extrinsically* necessary just in case (1) it is not intrinsically necessary, and (2) its existence "follows from" the existence of something intrinsically necessary. Anything which is either intrinsically or extrinsically necessary is metaphysically necessary. The "follows from" relation cannot be entirely understood in terms of logical entailment. As with entailment, if X is necessary and Y follows from X, then Y is necessary. Leibniz and Spinoza use a more restricted sense of "follows from," in this context. In this sense, X follows from Y just in case the existence of Y is *wholly explained* by the existence of X. X will then be what Leibniz calls a *sufficient ground* for Y. For X to wholly explain Y, X must be self-explaining, or intrinsically necessary. Also the existence of X must necessitate the existence of Y, otherwise, in Leibniz's sense, X would not be sufficient. In the sequel I will understand "follows from" in this sense.

What the above argument shows is that whatever is intrinsically necessary is metaphysically necessary, but not vice versa. This is crucial to understanding some of the apparently anti-necessitarian arguments in

Leibniz's texts. What Leibniz is concerned to deny is the proposition that the actual world is intrinsically necessary, since if it is then God would not be its sufficient ground and ultimate explanation. But this doesn't mean he denies that the actual world is metaphysically necessary. In fact it must be, if God is to be its sufficient ground and ultimate explanation. This brings us to a point that deserves to be emphasized: the distinction between what's intrinsically necessary and what's extrinsically necessary is not a distinction, in the mind of Leibniz or Spinoza, between kinds or degrees of necessity. Rather, it is a distinction between ways of, or reasons for, being metaphysically necessary. The reason that this distinction resists being characterized in modal semantic terms is that it is not a distinction among modalities. A linguistic clue to this fact is that Leibniz and Spinoza never use their preferred terms ("through itself" for Leibniz, "by reason of its essence" for Spinoza) for this distinction to modify "necessity" but only "necessary."

Correlative with the distinction between being intrinsically necessary and being extrinsically necessary is the distinction between being intrinsically and extrinsically possible. These notions turn out to be surprisingly hard to characterize clearly and accurately. A rough characterization of the notions is this: the *intrinsically* impossible is whatever is *self*-contradictory. The *intrinsically* possible is whatever is not *intrinsically* impossible. The *extrinsically* impossible, on the other hand, is that which is inconsistent with what's metaphysically necessary, or that which together with what's metaphysically necessary implies a contradiction. On Leibniz's view, something can be both *intrinsically* possible and *extrinsically* impossible. One of the things this shows is that Leibniz must reject the general inference from *intrinsically* possible to *metaphysically* possible. That is, contrary to the appearance of some texts, Leibniz does not take freedom from contradiction, or conceptual consistency, to be equivalent to metaphysical possibility.

This matters because Leibniz maintains, in spite of my necessitarian reading, that there is a plurality of possible worlds. However, if "possible" means "intrinsically possible," then the plurality of worlds thesis is consistent with necessitarianism, since intrinsically possible worlds may still be metaphysically impossible. I argue that intrinsically possible worlds are sufficient for Leibniz's purposes in asserting the plurality thesis. Those purposes are theological. As I said, Leibniz holds that God is the sufficient ground for the actuality of the best of all possible worlds. In particular, God's wisdom and goodness play an essential role in the explanation of this world's being actual. If there were not a plurality of intrinsically

possible worlds, Leibniz thinks, it would not be necessary to explain the actual existence of the best of all possible worlds in terms of God's wisdom and goodness.

Chapter 4 develops Leibniz's concept of possible worlds. We might expect Leibniz to hold that possible worlds are the way they are as a matter of metaphysical necessity. I argue that there are certain metaphysically necessary constraints on Leibniz's notion of a possible world, but that these constraints are extrinsic to the worlds themselves. They are grounded instead in the essential attributes of an intrinsically necessary being, God. For Leibniz, possible worlds are maximal compossible collections of intrinsically possible individual substances. The best of all possible worlds is the one which contains the greatest "quantity of essence." It follows from this, Leibniz maintains, that if all possibles were compossible, then they would all exist.

The central argument in Chapter 4 involves the notion of compossibility, or, more precisely, incompossibility. For there to be a plurality of maximal possible worlds, it must be the case that some possible individual substances are incompossible. Given various features of Leibniz's metaphysics, it is notoriously difficult to find a notion of incompossibility which satisfies both the plurality and maximality requirements. Commentators typically seek this notion in Leibniz's logic and metaphysics. I argue that Leibniz's notion of compossibility has to be tied to considerations involving God and his attributes. Since God's creative power is infinite, it is sufficient to bring about the coexistence of any collection of possible individual substances which is intrinsically compossible, that is which implies no contradiction when considered apart from God's attributes. However, when God's wisdom and goodness are considered they impose further structure on possible worlds. Given God's wisdom and goodness it is metaphysically impossible that he create a collection of substances that does not contain everything which is compossible with what it contains. Therefore, it's metaphysically necessary that possible worlds are maximal. Other features, such as the harmony among world-mates, enter Leibnizian possible worlds the same way.

3

The third part of the book deals with God's knowledge. Chapter 5 concerns the theory of middle knowledge, developed by Molina in the sixteenth century. We can say that the objects of middle knowledge are propositions concerning what free creatures would do in any possible

circumstances in which they may exist. This knowledge is (1) contingent and (2) independent of God's actual decrees. This view goes against the dominant tradition, according to which any knowledge God has independently of his will is necessary, and, consequently, his knowledge of what's contingent is knowledge of his actual decrees. Molina's adversaries agree that God has knowledge of the propositions that are the objects of middle knowledge. However, they argue that this knowledge will be either necessary or dependent on God's will.

One of the interesting consequences of Molina's theory is that God has knowledge of certain subjunctive conditionals independently of his knowledge of which world is actual. This suggests a view on which the truth-value of subjunctive conditionals (including counterfactuals) is not based on the world similarity relation, as it is in many prominent contemporary theories. In fact, the Molinist theory suggests that worlds are ordered according to whether they share the same true subjunctive counterfactuals. The Molinist theory also implies that there are worlds which God, as a matter of contingent fact, cannot actualize. This drives a wedge between the notion of a possible worlds and the notion of a world that God can actualize.

Molina's theory raises a question about the *source* of God's knowledge of these conditionals. This question particularly concerns Leibniz, who believes that truths must have a sufficient ground. Molina's own answer to this question is in a state of disrepute. He holds that God knows with certainty propositions which don't have certainty in themselves. He explains this by saying that the immediate object of divine cognition is the divine nature and that that nature infinitely surpasses in perfection the indirect objects of God's cognition – the subjunctive conditionals – so he is able to know them with certainty. Suarez has an alternative account of God's middle knowledge. Simply put it is that an omniscient being knows whatever can be known. These conditionals are knowable, since they are true. Therefore God knows them.

Leibniz's reaction to the theory of middle knowledge is the subject of Chapter 6. Leibniz holds that God has, prior to creation, complete concepts of every possible individual substance. And he holds that some of what's contained in these concepts is contingent. Thus God has conceptual knowledge of some contingent truths independently of his will. At a high level of generalization, this appears close to the Molinist theory. However, when we descend to the level of detail, the following important difference emerges. For Leibniz, the truth of a conditional's antecedent is sufficient for the truth of its consequent. This is required by the PSR.

However, Leibniz believes that God's knowledge of these conditionals is not purely conceptual, but is grounded in God's possible, rather than actual, decrees. Leibniz's claim that God's knowledge of conditional future contingents is grounded in God's decrees and that these decrees are sufficient for the truth of the relevant conditional brings him closer to the view of Molina's rivals. Molina's rivals, however, claim that God's knowledge of the relevant conditionals is grounded in his *specific* decrees concerning their truth. Leibniz rejects the claim that God makes specific decrees concerning the truth of the relevant conditionals. According to Leibniz God's decrees constitute the natures of the substances he creates, from which the consequents of the relevant counterfactuals follow. Leibniz also rejects the claim, made by Molina's rivals, that the *freedom* of God's decrees grounds the contingency of the relevant conditionals. Instead he holds that the *dependence* of the conditionals on God's possible decrees is sufficient for their contingency as he understands the term. This is in keeping with his necessitarian conception of contingency, according to which contingent truths are those which are *extrinsically*, but not intrinsically, necessary.

Chapter 7 concerns Leibniz's views on God's knowledge of counterfactuals. On a prominent contemporary view, a counterfactual conditional is true just in case the consequent is true in all of the nearest possible worlds in which the antecedent is true. Leibniz holds a view which is similar in spirit. On this view, a counterfactual conditional is true if the consequent is true in the best of all possible worlds in which the antecedent is true. What makes this so is that that's the world God would have chosen, were he to choose among the worlds in which the antecedent is true. This theory is different from the prominent contemporary view in three significant ways. First, it is not a general theory of counterfactuals, but a theory of what I call *mundane counterfactuals* – counterfactuals about possible creatures. This is because the mundane counterfactuals depend for their truth on extra-mundane counterfactuals about what God would have done in extra-mundane counterfactual circumstances. Second, these extra-mundane counterfactuals have impossible antecedents and nevertheless are not vacuously true. Third, the truth-value of Leibnizian counterfactuals does not vary from world to world.

CHAPTER 1

Descartes's arguments for the existence of God

This chapter concerns Descartes's arguments for the existence of God. I will begin with a discussion of the cosmological argument and then move on to the main focus, the ontological argument. Descartes's ontological argument was the one best known to Leibniz. It is certainly the one he scrutinized with the greatest care. And much of what he says about the ontological argument is developed in the context of a critical discussion of Descartes. The purpose here, however, is not just to provide background for the interpretation of Leibniz. Descartes's arguments are deeply interesting in their own right. And I will develop features of Descartes's argument which aren't discussed by Leibniz. Even here, however, I think there is material for a broad interpretive claim involving both Leibniz and Descartes. The thesis of this and the next chapter will be that these philosophers believe that there is an "ontological bias" favoring existence over non-existence at the fundamental level of reality.[1] And since they believe that God occupies this fundamental level, this is what explains his existence and provides the metaphysical foundation for the ontological argument.

1

Rather than analyze a specific passage I will reconstruct Descartes's cosmological argument[2] from four sources: the Third Meditation, the Geometrical Exposition attached to the Second Replies, the *Principles of Philosophy* and the First Replies.[3]

[1] See also Adams, 1994.

[2] There appear to be two distinct causal proofs in Descartes's writings, one that deduces God's existence from the objective reality of his idea of God, and another which implies that God is the ultimate cause of the existence of a contingent being. It is the latter that I am concerned with here. Descartes himself expresses indifference as to whether these are treated as distinct arguments or parts of a single long argument (to Mesland, 2 May 1644: AT IV, 112/CSMK 231–32).

[3] Third Meditation: AT VII, 48–51/CSM II, 33–35; Geometrical Exposition, Proposition 3: AT VII, 164–68/CSM II, 116–19; *Principles* I, 20–21: AT VIII i, 12–13/CSM I, 199–200. First Replies: AT VII, 106–8/CSM II, 77–78.

Axiom 1 of the Geometrical Exposition says:

Concerning every existing thing it is possible to ask what is the cause of its existence.[4]

Thus Descartes appears to endorse a version of the PSR: each existing thing must have a cause for its existence. Whether this principle demands an *efficient* cause for each thing's existence is not made clear here. Descartes clearly believes that contingently existing substances require an efficient cause. He also maintains that the eternal truths and essences of contingent things have an efficient cause in God.[5] Moreover, as we will see, Descartes says that God stands to himself as something like an efficient cause.[6] Descartes believes that the *continued* existence of a thing requires a cause as much as its beginning to exist. In fact the causality that sustains or conserves the existence of a thing is the same as the causality that brings it into existence. In Descartes's cosmological argument, it is his present existence, rather than his original creation, that is the datum he seeks to explain: "I preferred to use my own existence as the basis of my argument … And the question I asked concerning myself was not what was the cause that originally produced me, but what is the cause that conserves[7] me at the present moment."[8] Descartes repeatedly insists that the requirement of a conserving cause follows from the nature of time.[9] Distinct segments of time are causally isolated: if t_1 and t_2 are

[4] AT VII, 164–65/CSM II, 116. Cf. First Replies: AT VII, 108/CSM II, 78.

[5] "You ask by what kind of causality God established the eternal truths. I reply: by the same kind of causality as he created all things, this is to say, as their efficient and total cause. For it is certain that he is the author of the essence of created things no less than of their existence; and this essence is nothing other than the eternal truths" (AT I, 151–52/CSMK 25).

[6] The Axiom stated above continues: "This question may even be asked concerning God, not because he needs any cause in order to exist, but because the immensity of his nature is the cause or reason why he needs no cause in order to exist." What I'd say about this here is that this passage identifies the immensity of God's nature as the cause of his existence, which explains why his existence does not require an external cause.

[7] The verb "*conservare*" is translated in CSM as "to preserve" in the Third Meditation and the Replies and "keep in existence" in the *Principles*. This seems unnecessary as the English "conserve" is the standard term in contemporary philosophy of religion for referring to the activity that Descartes is discussing.

[8] First Replies: AT VII, 106–7/CSM II, 77.

[9] Third Meditation: "For a lifespan can be divided into countless parts, each completely independent of the others, so that it does not follow from the fact that I existed a little while ago that I must exist now, unless there is some cause which as it were creates me afresh at this moment – that is, which conserves me. For it is quite clear to anyone who attentively considers the nature of time that the same power and action are needed to conserve 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 conservation and creation is only a conceptual one, and this is one of the things that are evident by the natural light" (AT VII, 48–49/CSM II, 33). First Replies: