Brian Leftow God and Necessity. Oxford: Oxford University Press 2012. 560 pages \$110.00 (Hardback ISBN 9780199263356)

In *God and Necessity*, Brian Leftow issues a major challenge to modal realists, theists or not, by defending a metaphysics of modality in which God is boss. Two distinct but overlapping threads weave this book together. One is a polemic against extant realist theories of modality: Platonism, Meinongianism, and Lewisianism. The other is a novel theistic modal metaphysic erected in the rubble of the collapsed realisms. I will focus on this last thread and briefly review the former.

Leftow sets out to reconcile a perfect-being conception of God with modal reality that seemingly exists independent of Him and His control. God's perfection, according to Leftow, requires that He be the only underived being; all else in some way owes its existence to God. This 'some way' amounts to the most radical form of dependence, *creatio ex nihilo*. A perfect God, in other words, is necessarily the Source of All that is 'outside' Him:

GSA: Necessarily, for any *x*, if *x* is not God, a part, aspect or attribute of God, then God creates *x ex nihilo* as long as *x* exists.

As the universal quantifier suggests, (GSA) covers both concrete and abstract entities. The problem is that it is hard to see how God can create some *abstracta*, such as necessary truths. This is because, Leftow argues, every truth has an ontology that makes it true; yet nothing about God seems to make it true that '2 + 2 = 4' or 'Water = H₂O'. Whatever makes these true would seem to be 'outside' of God, violating (GSA) and, likewise, God's perfect-being status.

Putative solutions to this problem have precedents in Aquinas, Leibniz, and Descartes, among others. All agree that God somehow grounds modal truths, but differ as to how. Aquinas and Leibniz think God's *divine nature* ultimately grounds all modal truth (so-called 'deity theories'). On the other side is Descartes, who thinks all modal truth is grounded in what God wills (call this *modal voluntarism*). To locate Leftow's position, he advises us to 'start at Aquinas and take a half-step toward Descartes' (vii). A map can help us follow Leftow:



With deity theories Leftow agrees that God's nature grounds *some* modal truths: 'nonsecular' truths, as he calls them: i.e., those about or deducible from God's nature alone (e.g., 'God exists, is divine, good, etc'). But the half-step toward Descartes is taken by grounding 'secular' modal truths—truths not about God (e.g., 'Water = H_2O' , 'Possibly, Fido exists and is brown')—in what God freely imagines. (It turns out that truths of pure logic and mathematics are non-secular because implicit in their form are unrestricted quantifiers which include God in the domain.) The bulk of *God and Necessity* develops and defends this moderate voluntarist component of Leftow's view, and in that context the novel features of his modal metaphysic takes shape.

Leftow's modal metaphysic can be thought of as having three explanatory stages, the final stage being creation itself. At stage one God is alone *sans* creation; here all modal truths are grounded in God's nature or in general concepts God acquires by reflecting on His nature (e.g., 'I can create, so creatures are possible'). The magic happens at stage two, 'the Biggest Bang': God freely and spontaneously imagines the content of modal space (*sans* secular modal *truth*). Although it was 'in God' (a special operator for Leftow) to have imagined otherwise, alternative Bangs are not possible because possibility emerges *ex post facto*.

Within the constraints imposed by His nature, God freely decides 'from eternity' what post-Bang modal truth shall be by acts of permission and prevention. Such acts bestow upon God powers He does not have by nature ('non-natural powers'). God's permitting something makes it possible and so within God's power to bring about; God's preventing something makes it impossible and so not within God's power to bring about. Indeed, for Leftow, secular possibilities *just are* God's causal powers. Taking permission and prevention to function as dual operators, all secular alethic modalities can be stated in terms of permissions and, correlatively, powers. Secular necessity: God permits only that $\phi (\Box \phi \equiv \neg \circ \neg \phi)$; there is no divine power to make $\neg \phi$ true. Secular contingent: God permits $\phi (\diamond \phi \equiv \neg \Box \neg \phi)$ and $\neg \phi (\diamond \neg \phi \equiv \neg \Box \neg \phi)$; there is a power permitting both. Secular impossibility: God permits only that $\neg \phi (\neg \diamond \phi \equiv \Box \neg \phi)$; no power would bring it about that ϕ if used. Though in the end Leftow reduces worlds to powers, it remains convenient to indulge the fiction of possible worlds to illustrate how Leftow seems to understand the structure of modal space.

Leftow imagines modal space taking on a tree-like structure where different ways things could go branch out from a common point of origin at the Bang. Branches sprout branches where an alternative way things could go is causally possible for God up to that point (represented below as binary junctures for simplicity's sake). 'Each possible world traces one always-forward-moving path through such a tree' (404). Here is a picture worth (almost) 550 pages:



Although any must include M, it is causally possible for God to prefer a different body of secular modal truths. Those God does prefer follow from His initial preference-state. Different branches stem from God's initial preference-state, one of which will trace the actual world, $W_{@}$. $W_{@}$'s path

follows the preferences God actually adopts at each juncture. All dashed branches from $W_{@}$ represent non-actual possible world-segments or histories: i.e., what is causally possible for God had he preferred differently (e.g., from $W_{@}$, $\diamond \neg P_1$). What is possibly possible from $W_{@}$ occurs in a branch branching from $W_{@}$, and so on (e.g., from $W_{@}$, $\diamond \diamond P_2$... $\diamond \diamond \diamond \diamond P_4$). Leftow sees these branches as 'broadly analogous to continuous spatial paths' (404), and so the relations connecting them as transitive. Transitivity, combined with $W_{@}$'s being possible relative to itself, gives S4. We can see that symmetry obtains between any two worlds that share a segment of history. For example, $W_{@}$ and W_1 are each ways things could have gone from where they diverge, and so each is possible relative to the other. Modal space therefore takes on all the accessibility relations sufficient for S5—the 'true' modality. The picture just taken is too wide to capture Leftow's interesting treatment of other metaphysical minutia, such as essences, propositions, hacceities, properties, sets, relations, etc. Suffice it to say that they, like worlds, in some way get reduced to God and His activities.

Turning briefly to the second thread of the book, Leftow argues that there are no good arguments for Platonism, there are good arguments against Platonism, and that his view can deliver everything Platonists want while avoiding the anti-Platonist objections. Similar conclusions are reached with respect to the other two extant realist theories, Meinongianism and Lewisianism. Leftow also argues against all extant theistic handlings of the problem: pure deity theories both lack a plausible story about how God grounds modal truth and have the unintuitive consequence of making God's existence depend on truths like 'water = H_2O' , while extreme modal voluntarism simply has nothing to be said for it (225). Leftow ties together the two threads in the final chapter by arguing that his own theistic alternative trumps all rival theories in theoretical virtues: it is more parsimonious in kind and number, has greater explanatory scope, and has more homely and work-efficient primitives. Leftow therefore offers the beginnings of a 'global economy argument' for God's existence: insofar as you are attracted to desert landscapes but cannot forsake the waters of realism, theism is the view for you.

This book is 34 ounces of philosophical red meat. It is tough but juicy. It is hard to conceive of a philosophical topic more substantive than God and the foundations of modality. Philosovegans who think it is wrong to consume philosophy of religion should keep their distance; it puts the lie to the tired complaint that philosophy of religion is nothing but 'apologetics' and does not match the analytic rigor of other fields. Secondly, the book is chock full of arguments. Nearly every sentence has a supporting argument followed by a painstaking analysis of possible rejoinders, surrejoinders, and so on. (Much of that material, I think, could have been abridged.) Finally, throughout the book Leftow does a commendable job in considering how his view could be accepted by theists who do not share some of his theological commitments, such as divine timelessness.

Three friendly critical observations. First, by arguing that any real priority relationships *within* God (e.g., between God and His nature or constituents; see 53-54, 234-235) is unacceptable, it becomes clear that Leftow's perfect-being convictions motivate a principle much stronger than the anti-Platonist (GSA). They motivate a full-blown doctrine of divine simplicity. In other words, the perfect-being assumptions motivating Leftow's entire project can be reasonably challenged *even by theists who are not Platonists*, such as those who acknowledge some kind of real priority or dependence relationships between just the concrete members of the Godhead. Relatedly, I wish Leftow had said more about crucial terminology he generously employs throughout the book,

principally what Karen Bennett calls 'building relations': e.g., 'determines', 'grounds', 'depends on', 'derives from', 'in virtue of', 'gives rise to', and so on. We get an all-too-brief discussion of 'real dependence' in the third-to-last chapter, but it is unclear whether the countless 'building' locutions used beforehand count as such. Finally, the writing could have been clearer. The overly casual style was often distracting. Often I could not determine whether a sentence was a typographical gaffe or just opaque writing. There are also a fair number of clear and distinct sentence gaffes, spelling errors, and inconsistent typesetting (sometimes properties are italicized, mostly not; sometimes quotes and propositions are indented, sometimes not; sometimes the horseshoe is used and sometimes the arrow, it being unclear whether this indicates a diction between material and strict implication. I catalogued all errata found should a future editor be interested).

God and Necessity will no doubt be widely received among philosophers of religion, but I am curious about its reception among the broader philosophical community, 'secular' metaphysicians in particular. There is enough 'secular metaphysics' to keep them interested, but that 'spooky' first part of the book's title may cause it to be overlooked. Leftow might want to consider distilling from it a more ostensibly inviting metaphysics monograph, similar to how William Alston distilled *The Reliability of Sense Perception* from *Perceiving God*.

C.A. McIntosh Cornell University