

Nicholas Rescher, *Studies in Leibniz's Cosmology* (*Nicholas Rescher Collected Papers Volume XIII*) Frankfurt: Ontos Verlag, 2006.

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Penultimate Version. Please cite the final version at: "Review of Nicholas Rescher's *Studies in Leibniz's Cosmology*" in *The Leibniz Review*, December 2007.

This short volume collects several of Nicholas Rescher's previously published articles on Leibniz's cosmology. It is the thirteenth in a fourteen-volume set of Rescher's collected papers which have been published by Ontos Verlag. The papers have been revised for this occasion.

The first four chapters concern issues in Leibniz's metaphysical optimalism, including the construction and constitution of possible worlds and various problems concerning God's creation. Two later chapters discuss Leibniz's physics, especially Leibniz's physical methodology and his relation to subsequent physicists. Another concerns Leibniz's use of analogy (revised from Rescher's edition of the *Monadology*). The final chapter explores the apparent tensions between Leibniz's epistemology and his ontology.

Most will agree that Rescher's more than fifty years of Leibniz scholarship has helped lift the state of Anglophone Leibniz scholarship to a higher level. This volume reflects Rescher's lifelong interest in Leibniz's cosmology (from his doctoral dissertation, *Cosmology: A Reinterpretation of the Philosophy of Leibniz in the Light of His Physical Theories*, to his over twenty articles and five books on Leibniz) and his thorough knowledge of Leibniz's system. Here, I will provide a brief overview of each chapter and then discuss just a couple of philosophical problems.<sup>1</sup>

Rescher prefaces his volume with a survey of the philosophical problems that confront Leibniz's cosmology: How can there be contingency when all truth is analytic? Must God always do the best? If God is necessitated to do the best and this world is the best, how can omninecessitation be avoided? How can the best of all possible worlds contain so much evil? How can limited imperfect creatures understand the world? Rescher states that his aim in the collection is to "lend plausibility" to Leibniz's solutions to these problems.

In the first chapter, "Alternative Possible Worlds" (based on "Leibniz on Possible Worlds," *Studia Leibnitiana*, 29 (1997), 129-62; reprinted in *On Leibniz*), Rescher explains the Leibnizian conception of possible worlds. Worlds are "saturated manifolds of (possible) concreta" (1). They exist as ideas in the mind of God. Only one world has the property of being concrete and actual. The existence of some individuals in a possible world excludes the existence of other individuals in that world. Every world must contain an infinite number of existents. Rescher contrasts Leibniz's notion of a possible world with conceptions from the ancient atomists and David Lewis. The chapter ends with an interesting discussion of the possible variations of space, geometries, and time among worlds. I will return to discuss some problems from this chapter later.

Chapter 2, "Leibniz on the World's Contingency" (which draws on "Contingentia Mundi: Leibniz on the World's Contingency," *Studia Leibnitiana*, 33 (2001), 145-162 and "Leibniz on God's Free Will and the World's Contingency," *Studia Leibnitiana*, 34 (2002), 208-20) attempts to explain how Leibniz avoids the necessity of the conclusion of the following argument:

- (1) God actualizes the best possible alternative.
- (2) The possible world answering to description  $w^*$  – that of our own actual world – is the best of all possible worlds.

(3) Therefore, God actualizes  $w^*$  (our own actual world).<sup>ii</sup>

Rescher argues that Leibniz denied the metaphysical necessity of both premises (1) and (2). Granted, the following conditional *is* metaphysically necessary: if  $w^*$  is the best possible world, then God chooses  $w^*$ . However, its consequent (that God chooses  $w^*$ ) is only *morally* necessary. Similarly, premise (2) is morally – but not metaphysically – necessary.

The key to the contingency of both premises, according to Rescher, is Leibniz's view that a contingent proposition is one that requires infinite analysis in order to establish the containment of its predicate in its subject. (This view presupposes Leibniz's more general account of truth as conceptual containment.) God's choice to do the best, Rescher says, is contingent because in creating the best, he undergoes an infinite series of willings – he wills to will to will and so on to infinity (37). Likewise, the determination of this world as the best requires an infinite analysis because it is a choice that is made from among an infinite number of alternatives. Since (1) and (2) both require an infinite analysis in order to establish their truth, they are both contingent. Although Rescher's position has not changed since the publication of his original articles, he does undertake to answer some objections from his critics. I will also return to these later.

In chapter 3, "Leibniz on Ontological Perfection" Rescher addresses the question of why the laws of nature are as they are. Here, he explains Leibniz's difficult ontological values: order, variety, harmony, and perfection.<sup>iii</sup> Rescher argues that variety of phenomena and order are *competing values*: values such that the augmentation of one will require the diminishment of the other (think of safety and mobility in a knight's armor). A world with too much variety and too little order would produce laws that are beyond the grasp of created beings, while a world with too much order and too little variety would be dull. A harmonious or perfect world would be the one that is able to achieve the best balance of these two qualities.

Chapter 4, “Some Purported Obstacles to Leibniz’s Optimism,” attempts to resolve the problem of the possibility that there is no best possible world.<sup>iv</sup> Leibniz’s official position here is that since God will only create if there is a best to create, and since this world exists, we know that it must be the best. However, many commentators have found this response unsatisfying (to say the least). Rescher attempts to show that the two possibilities – (a) that no best world exists, and (b) that several worlds are tied for best – can both be ruled out on Leibnizian principles. First, just as there can be only one perfect plane, or straight line, so too there can be only one best possible world. This rules out the possibility of ties. Second, if variety and order are indeed competing values (as discussed in the previous chapter), then the optimal world cannot possibly contain maximal amounts of both of them. Once we get to a complete description of a world where variety and order are in an optimal balance, Leibniz might argue via the Identity of Indiscernibles that there can be only one unique world which answers to this complete individual (world) concept.<sup>v</sup>

In Chapter 5, “Leibnizian Physics,” Rescher claims that Leibniz would have expanded the purview of physics. In addition to the study of phenomena and the creation of laws, Leibnizian physics would attempt to explain why the laws are the way they are. Since Leibniz is committed to the Principle of Sufficient Reason (“the rationality of the real”) and ontological simplicity, he is forced to say that classical physics is unable to provide a complete explanation for why it is that *this* world – of all the possible worlds consistent with the laws of nature – exists. Consequently, Leibnizian physics will also involve metaphysics and theology. (This chapter is marred by large quotations from Leibniz’s text that are repeated several times.)

Chapter 6, “Leibnizian Physics Revived (Gödel-Leibniz-Plato and a Bit of Einstein)” is more about Gödel than Leibniz, although it offers an account of the similarities (both real and imagined by Gödel) between the two mathematicians.

Chapter 7, “Analogy and Philosophical Method in Leibniz” (the majority of which comes from Rescher’s student edition of the *Monadology*) examines Leibniz’s use of analogy. Leibniz was a master of analysis and the drawing of subtle distinctions. But it was his use of analogy, Rescher says, that enabled him to achieve the syntheses characteristic of his systematic philosophy. Analogy is a valid method of argument within the Leibnizian system because of the intrinsic rationality of the world and the uniformity among things. The remainder of this short chapter consists in a section by section listing of the analogies contained in the *Monadology*.

In the last chapter, “Coordinating Epistemology and Ontology in Leibniz,” (which Draws on “Leibniz’s Quantitative Epistemology,” *Studia Leibnitiana*, vol. 37, 2006) Rescher argues that Leibniz must accept a type of “eternal return.” Since there are only finitely many modes of expression in any language, and since all our thoughts are constructed in language, and reality is infinitely complex and endlessly detailed, there will eventually be duplications in our descriptions of reality. So although reality might seem limited and repetitive, which would tell against Leibniz’s views concerning the nature of the world, Rescher argues that it is actually our ability to comprehend and distinguish reality that is limited. Moreover, our perception that events repeat does not conflict with Leibnizian doctrines of eternal improvement and cosmic melioration. For even repetitive stages can be indicative of improvement, if part of a larger cyclic series.

Now for my criticisms. Although I think Rescher's account of Leibniz's views concerning possible worlds is substantially correct and admirably clear, he leaves several philosophical points without either textual support or Leibnizian justification.

First, there seems no reason to think that possible worlds must contain an infinite number of existents. Rescher writes, "Possible worlds are by nature – that is, as *worlds* – necessarily maximal manifolds of existence. There are, accordingly, no possible worlds that contain only a finite number of existents" (7). But why is it not possible that a world composed of a finite number of particular individuals also be a maximal manifold? Consider a world with just two complete individual substances in it. The individuals in question would have to be extremely limited in their expressions; they would be incompatible with practically everything else possible. Granted, this maximal collection containing only two complete individual concepts would be ontologically inferior to almost any possible world containing a greater number of creatures. But is it not at least a possible world?

In fact, I see no reason why there could not be a world with just one individual – "the maximally impossible possible," if you will. This individual's complete individual concept would include the proposition "I am the only created individual that is related (in any way) to me." If the maximally impossible possible expresses his world universally, it would be a world of maximal harmony *given the capacity of the world*. Of course, it is a world that contains a highly undesirable individual – an individual impossible with every other possible individual. This individual would only be compatible with privation, or the lack of being or goodness. It would express his universe without any perceptions relating to other substances. Still, it seems a possible individual.

Second, although Leibniz would surely have denied it, it would be interesting to see a principled reason why God could not have actualized (created) more than one possible world. Rescher tells us that for Leibniz, “existence is something absolute that distinguishes one world from all the rest” (8). But even if, for Leibniz, actualization is absolute rather than indexical, this does not rule out the possibility of plural actualization. Even if worlds are maximally compossible manifolds of individuals, the creation by God of two or more of these manifolds seems entirely possible. The actualization of two or more possible worlds would not create a “meta-world,” but instead two completely isolated collections of individuals (i.e., worlds) would be actual. If no relations hold between the worlds, there could be no contradiction in a proposition asserting the existence of both. Thus, the actualization of two possible worlds is not ruled out by the impossibility of the inhabitants of those worlds. It is true that if God were to actualize more than one possible world, then every actual creature would not express every other actual creature. This might seem like a reason for rejecting the possibility. However, expression is an attribute of world demarcation, and in this scenario it would still be the case that every creature expresses every other in its own world. It is just that more than one world exists. It might not be clear why such an actuality would be chosen, but an omniscient God might have his reasons.

Now I return to Rescher’s replies to his critics concerning his infinite analysis account of contingency (Chapter 2). Rescher considers two objections made by R. M. Adams. First, Adams says that Rescher’s account makes God only contingently perfectly good, which would obviously be unacceptable to Leibniz.<sup>vi</sup> Rescher replies that the proposition, ‘God is maximally good’ is indeed necessary, but that *how* he is maximally good is contingent, because God’s

specific choices in manifesting his perfect goodness are free. Rescher maintains that for Leibniz, God's metaphysical perfection does not analytically entail his moral perfection.

Adams' second objection concerns the passage Rescher uses to substantiate the claim that God's free choice requires an infinite regress of willings. Adams claims that this passage is unique, and that the infinite regress indicated in it violates Leibniz's Principle of Sufficient Reason.<sup>vii</sup> Rescher argues that Leibniz underwent a "Road-to-Damascus like eureka experience" concerning his views on freedom in 1684-85. Rescher also claims that each step in the infinite regress is the grounding rationale for the next one, and that the entire collection can serve as a sufficient reason *via* The Principle of Continuity because the regressive series is convergent.

It is questionable whether Leibniz would accept that an infinite series of contingent things might serve as a sufficient reason for the existence of the series, itself – even if we allow that the series is convergent. For Leibniz must deny precisely this possibility in order to get his cosmological argument off the ground. In "On the Ultimate Origination of Things," Leibniz argues that even if the world were infinite it would still require a sufficient reason outside the world. For although each successive state of the world might provide a ground for each subsequent state of the world, no collection of these states could provide a reason for the existence of the world. Since the entire series of states must have a reason as well, and there is nothing outside the infinite series of contingent things except a necessary being, a necessary being must be the sufficient reason for the infinite chain of contingent things. By parity of reasoning, if God's willings are the grounds for each previous willing, then it might seem that the infinite series of willings itself must have a ground in something outside of God's will. This, as Adams notes, would be God's essence and intellect.<sup>viii</sup>



Rescher also addresses an objection that I advanced in my doctoral dissertation.<sup>ix</sup> There, I discussed several philosophical problems with the view that the contingency of a proposition (or an entity) consists in or is constituted by its infinite analyticity. I took Rescher to be making the following claim:

IAC: A proposition *p* is contingent *in virtue of the fact that* there is an infinite analysis, but no finite analysis, of the relevant terms of *p* that approaches some identity-statement as its limit.

I then argued that Leibniz is not committed to this view. Rescher agrees, and he here states that he never held this view. He takes infinite analyticity merely to be the mark or criterion of contingency. Fair enough. So it seems that Rescher holds at least the following:

IAC\*: A proposition *p* is contingent iff there is an infinite analysis, but no finite analysis, of the relevant terms of *p* that approaches some identity-statement as its limit.

Or perhaps Rescher believes something still stronger (as Leibniz seems to):

IAC\*\*: Necessarily, a proposition *p* is contingent iff there is an infinite analysis, but no finite analysis, of the relevant terms of *p* that approaches some identity-statement as its limit.

If Rescher accepts IAC\*\*, I am perplexed as to why he does not accept IAC. Perhaps he doubts that a necessary biconditional adequately expresses the “in virtue of” relationship. If so, he never explains why.

Whether IAC\* or IAC\*\* captures Rescher’s view, I think there are still (at least) two problems with his account of the contingency of God’s choice to create the best world. Rescher holds that we can know that this choice was contingent because in

choosing to do the best, God would undergo an infinite series of willings. This account of the contingency of a willing is supposed to be analogous to Leibniz's account of the contingency of a proposition, which itself requires Leibniz's conceptual containment account of truth. But the analogy is strained. An infinite series of willings is unlike a proposition which cannot be proven by a finite demonstration, in that a series of willings cannot be proven (or analyzed) at all. Willings, although they have conceptual content, do not seem to be truth-apt. *That God willed x* might be true or false, but *God's willing x* is not true or false. *God's willing x* may involve an infinite series of willings, but these willings do not add up to any sort of conceptual containment that can be verified by analysis. Thus, *God's willing x* is not the sort of thing that can be determined to be necessary or contingent by the same method that we use in the case of propositions.

Second, if infinite analyticity is merely a mark of contingency (as in IAC\*), then we are still owed an account of the nature of contingency: of *how* it is that God's choice to do the best is contingent.<sup>x</sup> Some of Rescher's remarks, as discussed above, indicate an account based on freedom. Suppose that what makes something contingent is that it is the result of a free choice. On this account, the contingency of the world can be traced to the fact that God can freely choose how to specify his goodness. But if this is Rescher's view, then the original problem arises again. If God is perfectly good and there is a best possible world, then how would it be possible for God to fail to choose to create that best world? An account of free will is needed here, but no account is given.

I have one final worry. Rescher claims, as noted above, that this world's optimality is also contingent. He wants to analyze the contingency of the proposition, 'Ours is the best of all possible worlds,' in the manner already described. But it is not clear that God must undergo an

infinite analysis in order to determine that our world is the best of all possible worlds. The good world-making qualities are finite in number, and God knows what they are. It is true that there are infinitely many possible worlds. But God need not examine them all in order to know which world is the best according to his criteria – after all, they are ideas in his understanding. His idea of the best not only corresponds to the best possible world, it is identical with the complete concept of that world.

The volume includes a list of Rescher's publications on Leibniz and a name index. It does not include a subject index. There are a couple of downsides to the volume. One is the price. At US \$89.99 it is a rather expensive (short) volume. At this price, it is safe to say the book is aimed at libraries who have subscribed to the entire fourteen-volume set. The other downside is the proofreading: there are copious typographical errors in the text. I found these to be quite distracting while reading – especially the mistakes in the translated passages. With the volume set at this price, the press should be able to afford a good proofreader.

Despite these flaws, this is one of the few sources for a complete overview of Leibniz's cosmology. It is much enhanced by Rescher's keen insights into Leibniz and his obvious passion for the subject matter. All told, this volume is a rewarding read for anyone interested in the subject, and it will certainly be a valuable resource for students and scholars for years to come.

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<sup>i</sup> I would like to thank R. C. Sleight, Jason Raibley, and Kristen Hine for reading drafts and providing helpful criticisms and discussion.

<sup>ii</sup> Rescher, 27.

<sup>iii</sup> For recent discussions of these world-making properties see Donald Rutherford's *Leibniz and the Rational Order of Nature* (Cambridge: Cambridge University Press, 1995), and Catherine

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Wilson's "Compossibility, Expression, Accomodation" in *Leibniz: Nature and Freedom*, edited by Donald Rutherford and J. A. Cover (Oxford: Oxford University Press, 2005).

<sup>iv</sup> The literature on this subject is abundant and interesting. See especially David Blumenfeld, "Is the Best Possible World Possible?" *The Philosophical Review*, vol. 84 (1975), 163-177; Nicolas Jolley, the *Cambridge Companion to Leibniz* (Cambridge: Cambridge University Press, 1995); Donald Rutherford, *Leibniz and the Rational Order of Nature* (Cambridge: Cambridge University Press, 1995).

<sup>v</sup> Rescher, 94-95.

<sup>vi</sup> Robert Adams, *Leibniz: Determinist, Theist, Idealist* (Oxford: Oxford University Press, 1994), 36. In Rescher's text, this book is referred to as "*Leibniz: Determinist, Theorist, Idealist.*"

<sup>vii</sup> Adams, 41.

<sup>viii</sup> Adams, 41.

<sup>ix</sup> Marcy P. Lascano, *Leibniz and Locke on the Ultimate Origination of Things* (Dissertation, University of Massachusetts at Amherst, 2006). (Rescher cites this work under the name "Mary P. Lascuno.") N.B. I do not here intend to commit myself to a merely epistemological reading of the concept containment account of truth.

<sup>x</sup> That infinite analyticity is the mark of contingency (if true) is sufficient to show that premises (1) and (2) of the necessitarian argument are contingent, and so Leibniz is not committed to the necessity of the conclusion. But whether it is true that these premises are contingent or not is going to depend on the account of contingency.