Nicholas Rescher, *On Leibniz*. Pittsburgh: University of Pittsburgh Press, 2003. Pp. x + 252.

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Nicholas Rescher is well-known for the breadth of his philosophical corpus, covering fields as diverse as medieval Arabic logic, process metaphysics, philosophy of science, and value theory. But one of his greatest preoccupations and passions throughout his career has been the life and thought of G.W. Leibniz. Indeed, as a result of his intimate familiarity with Leibniz and Leibniz's historical milieu, Rescher invariably provides us with a clear, rigorous, and sympathetic treatment of Leibniz's texts, and the present book under review is no exception.

I will begin my review with the very last entry in Rescher's book, this consisting of a short but interesting Postscript where Rescher provides a brief history of his life-long concern with Leibniz's work. One of the many interesting facts divulged by Rescher includes his first, albeit symbolic, contact with the great man in 1928, when the four- or five-month-old Rescher relocated with his parents to No.3 Leibnizstrasse in Hagen in the province of Westphalia. He goes on to tell us that he first became seriously interested in Leibniz after encountering Bertrand Russell's *A Critical Exposition of the Philosophy of Leibniz* (London: Allen and Unwin, 1900; 2nd ed. 1937). This was just before Rescher was to begin graduate studies at Princeton in 1949, during which time he discovered another work that was to have a long-standing impact on him, Louis Couturat's *La Logique de Leibniz, d'après des documents inédits* (Paris: Felix Alcan, 1901). The affair with Leibniz was now in full swing. As Rescher himself puts it, "It was two figures of a past generation (Russell and Couturat) that led me to Leibniz, but it was Leibniz himself who held me there" (243). The result of this early interest in Leibniz was Rescher's 1951 doctoral dissertation, *Cosmology: A Reinterpretation of the Philosophy of Leibniz in the Light of His Physical Theories*. His PhD was completed within two years at the age of twenty-two, and this while having no teacher in Leibnizian matters to guide him, but relying on books alone.

But it was only after arriving at the University of Pittsburgh in 1961 that Rescher began to make a significant contribution to the study of Leibniz's philosophy. Apart from offering a regular graduate seminar on Leibniz, he was to publish in 1967 an introductory but comprehensive textbook, *The Philosophy of Leibniz* (Englewood Cliffs: Prentice-Hall), a revised version of which appeared in 1979.

Also in 1967—on the occasion of the 250th anniversary of Leibniz's death—he helped found the International Leibniz Society, and later he also played a leading role in the establishment of the Leibniz Society of North America. During the 1970s, furthermore, he began to publish widely on Leibniz, and today he has five books and over twenty articles on Leibniz to his credit.

His most recent book, *On Leibniz*, consists of eleven previously published papers, many of which originally appeared in *Studia Leibnitiana.* Their dates of publication range from 1977 to 2002, and they may be divided into three broad groups: those dealing with Leibniz's metaphysics (Chapters 1-4), those concerned with epistemic and methodological issues in Leibniz's work (Chapters 5-7), and three biographical essays exploring Leibniz's personal and scholarly development (Chapters 8-10). The final chapter (Chapter 11) attempts to extend the program of Leibnizian monadology along lines suggested by contemporary process metaphysics. Five of these chapters have previously appeared (some in slightly different form) in Rescher's earlier collection, *Leibniz's Metaphysics of Nature: A Group of Essays* (Dordrecht: D. Reidel, 1981). In what follows, I will concentrate on the philosophical chapters, and only provide a brief overview of the historically oriented biographical chapters.

I. Metaphysics

The first chapter, entitled "Leibniz on Possible Worlds", provides an account of Leibniz's metaphysics of modality. Leibniz, Rescher notes, is no realist as far as possible worlds are concerned. Worlds that are merely possible, as well as the substances located in such worlds, have no independent existence, but are rather ideas in the mind of God. Rescher then moves on to Leibniz's well-known Principle of the Identity of Indiscernibles ("No two substances are completely similar, or differ solely in number"), and to some closely related principles: no substance has more than one complete description, and no substance can exist in more than one possible world. I was quite interested to learn that, according to Leibniz, possible worlds are necessarily maximal manifolds of existences, where this implies that no possible world can contain only a finite number of existents (say, three rabbits and nothing else). This seems highly counterintuitive, and I would have liked to know why possible worlds need to be infinitely detailed in their inner constitution. Also interesting is that possible worlds, on Leibniz's view, are not only infinite in number, but also incompossible—that is to say, the

existence of one possible world (logically) precludes the existence of any other. In the course of this chapter, Rescher provides some illuminating contrasts between the conception of possible worlds proposed by Leibniz and the many-worlds hypotheses espoused by the atomists of ancient Greece, David Lewis, and some contemporary physicists.

After a discussion of Leibniz's views on the spatial and temporal properties of possible worlds, Rescher turns to Leibniz's standard of judging the level of a world's goodness. According to Leibniz, writes Rescher, a world's goodness is determined by its *variety* (or richness of phenomena) and *order* (or lawfulness, where this includes the degree of simplicity of the governing laws), and the best world is the one which embodies the ideal trade-off between variety and order. However, David Blumenfeld (in "Perfection and Happiness in the Best Possible World," in Nicholas Jolley (ed.), *The Cambridge Companion to Leibniz*, Cambridge: Cambridge University Press, 1995, pp.383-93) has put forward an alternative, and perhaps more plausible, interpretation of Leibniz on this matter. Blumenfeld argues that the trade-off idea cannot be attributed to Leibniz, since Leibniz does not think of variety and order as pulling in opposite directions. Rather, Leibniz's view is that the best world is the one that contains the greatest conceivable variety of phenomena. Order—or, more precisely, nomic simplicity—is merely the *means* to achieving the greatest diversity. Indeed, for Leibniz it is only the simplest possible laws that can produce the greatest variety. And so Blumenfeld concludes that Leibniz subscribes not to any trade-off, but to a harmony, of variety and simplicity. (Blumenfeld does go on to add, however, that the best world, according to Leibniz, will contain not only the greatest variety and order, but also the greatest conceivable happiness.) Further support for Blumenfeld's reading is provided by Donald Rutherford in *Leibniz and the Rational Order of Nature* (Cambridge: Cambridge University Press, 1995), ch.2.

The final parts of Chapter 1 relate Leibniz's views on possible worlds to his philosophical theology. In line with his Principle of Perfection, Leibniz infamously claimed that God selected the (uniquely) best world for actualization, that is, the one containing the greatest amount of variety consonant with the greatest degree of lawfulness and order. And if there were no unique best world, Leibniz adds, God would not create any world at all. However, in support of his assumption that there must be a best world, rather than an infinite series of increasingly better worlds, Leibniz unfortunately can only appeal to the fact that some world (viz., our world) has in fact been actualized (which, according to Leibniz, would

not have been the case if there were no best world). It was not made clear, however, how Leibniz reconciled his commitment to a unique best world with his conviction that there is an infinite number of possible worlds. Rescher concludes this chapter by noting that Leibniz's ontology "itself exhibits the quintessential features of Leibnizian perfection, being at once economical in principles but rich in elaborate detail" (41).

The next chapter, drawn from a recent publication ("Contingentia Mundi: Leibniz on the World's Contingency"), is concerned with Leibniz's thesis—stated in opposition to Spinozistic necessitarianism—that the world exists *contingently*. (Unfortunately, the material on pp.57-59 of this chapter overlaps closely with pp.27-29 in the preceding chapter.) Rescher points out that this thesis appears to conflict with Leibniz's view that (1) God actualizes the best possible alternative, and (2) our world answers to the description of the best of all possible worlds. But if premises (1) and (2) are taken to be necessarily true, then it would follow as a matter of logical necessity that our world exists—in which case, everything that occurs, occurs necessarily. Leibniz's way out, in characteristic scholastic fashion, is to draw some distinctions: firstly, between *metaphysical* necessity and *moral* necessity; and secondly, between the necessity of consequence (e.g., $\Box P \longrightarrow Q$) and the necessity of consequent (e.g., $P \longrightarrow \Box Q$). In the light of the first of these distinctions, Leibniz holds that God's choice of the best available alternative is only morally necessary, not metaphysically necessary. And in the light of the second distinction, Leibniz is prepared to accept

$(\forall w)\Box$(*w* is the best possible world $\longrightarrow$ God chooses *w*),

where '$\Box$' corresponds to 'It is metaphysically necessary that…', since this statement merely expresses a *de dicto* necessity. But he need not, and does not, commit himself to

$(\forall w)$ (*w* is the best possible world $\longrightarrow \Box$God chooses *w*),

for this expresses a *de re* necessity, thus rendering the existence of the world metaphysically necessary. Leibniz, therefore, takes 'God chooses what is best' (i.e., (1)) to express a contingent truth. But he also confers a contingent modal status to premise (2). For it would require an infinite number of calculations to determine which world is the best, and so (given that what cannot be determined by any finite analysis must be contingent) which world is the best is a contingent matter. Thus, Leibniz avoids a commitment to the necessity of the world's existence, despite his allegiance to (1) and (2).

Has Leibniz succeeded in pulling himself back from the precipice of necessitarianism? I very much doubt it. To begin with, Leibniz's claim that it is only contingently true that our world is the best has occasioned various objections, particularly against his infinite analysis conception of contingency. There is, however, one objection that has sometimes surfaced, but which lacks any merit. Benson Mates voices this objection as follows:

> This 'solution' [i.e., Leibniz's strategy of accounting for the contingency of propositions such as 'Caesar crossed the Rubicon' by way of his infinite analysis conception of contingency] would seem to explain at most how we mortals, who are unable to accomplish infinite analyses, might mistakenly suppose that such a proposition as 'Caesar crossed the Rubicon' was contingent, that is, could have been false, while God would be aware that anyone who would not cross the Rubicon would not be Caesar. (*The Philosophy of Leibniz: Metaphysics and Language*, New York: Oxford University Press, 1986, p.45.)

Mates is here following the example of Russell and Lovejoy, who also argued that Leibniz, by connecting contingency with infinite analysis, mistakenly confused a metaphysical notion with an epistemic one. This, however, is a misinterpretation. As David Blumenfeld has noted,

> Leibniz defined contingency in terms of whether a proposition is in principle demonstrable. This is not an epistemic property. It is a logical notion which depends on the nature of the concepts themselves and is not relative to the capacities of any given intellect. ("Leibniz on Contingency and Infinite Analysis," *Philosophy and Phenomenological Research* 45 (1985): 498; though see Blumenfeld's partial retraction on p.509.)

On Leibniz's theory, therefore, truths that are contingent for us are just as contingent for God, since God can no more demonstrate such truths than we can. This is not to say that God does not have infallible knowledge of these truths; rather, it is just to say that his knowledge is not arrived at by a demonstration, but by an infallible vision.

Moving on to premise (1), the textual evidence does not unambiguously support the view that Leibniz subscribed to the contingency of 'God chooses what is best'. But even if the texts were less ambiguous in this instance, Leibniz—as Robert Adams has pointed out—generally inclined to the view that it is necessary that God does no evil. And if Leibniz thought that it is necessary that God does no evil, it seems he cannot avoid concluding that it is necessary that God does not prefer the less perfect (for, according to Leibniz, to prefer the less perfect is to be

doing something evil). (See Adams, *Leibniz: Determinist, Theist, Idealist*, New York: Oxford University Press, 1994, pp.36-42.) Furthermore, to say that it is morally necessary, but not metaphysically necessary, that God chooses the best will not help matters. For according to the Anselmian perfect-being theology inherited by Leibniz, God is an absolutely perfect being, and necessarily so. On this view, God necessarily bears all the perfections, including the moral perfections, to the highest possible degree. And so, from this perspective, any division between God's metaphysical nature and God's moral nature (and thus between metaphysical necessity and moral necessity) is merely conceptual, if not arbitrary. It seems, therefore, that Leibniz cannot avoid necessitarianism by holding that God's choice of the best is contingent. (For further problems with Leibniz's strategy of holding premises (1) and (2) to be contingently true, see Blumenfeld, "Leibniz on Contingency and Infinite Analysis," pp.509-13, as well as ch.1 of William Rowe's recent monograph, *Can God Be Free?* Oxford: Oxford University Press, 2004.)

In Chapter 3 ("Leibniz on Intermonadic Relations"), Rescher attempts to counter the commonly held view that, for Leibniz, relations are mere creatures of the mind. This must be a misreading, says Rescher, for Leibniz depends crucially on the mutual interrelatedness of substances in order to arrive at his doctrine of the incompossibility of substances, which in turn allows him to construct possible worlds as mutually exclusive alternatives. Indeed, Leibniz is well-known for stressing the reality of relations in such claims as "tout est lié" and "each singular substance expresses the whole universe in its own way", views which, as Justin Erik Halldór Smith has recently emphasized, Leibniz inherited from Renaissance Christian Platonism (see Smith's "Christian Platonism and the Metaphysics of Body in Leibniz," *British Journal for the History of Philosophy* 12 (2004): 43-59). But how can Leibniz accommodate the reality of relations when he is only prepared to accept the (real) existence of substances and their properties? The answer, explains Rescher, lies in Leibniz's view that "relations do not have reality in their own right, but a dependent reality correlative with their inherence in the related terms" (71). Rescher goes on to show how Leibniz derives the ontological status of relations from the thesis of the reducibility of relations, according to which relations are reducible to combinations of merely predicative propositions, as these are embodied in the complete individual notions of the relevant substances. Relations are therefore real, but they are not real *things*, for they are not things or substances.

Rescher's view that Leibniz thought that relational concepts could be reduced to non-relational ones may be an improvement on the Russellian view that Leibniz dismisses relations altogether as creatures of the mind. Nevertheless, there remains, I think, a case to be made that Leibniz countenanced at least some *irreducibly* relational predicates—or that, at least, this is what he must do in order to save his doctrine of the incompossibility of substances and the multiplicity of worlds. Such a line of thought has, in fact, received much support from the work of Jaako Hintikka and Hidé Ishiguro. (See Hintikka, "Leibniz on Plenitude, Relations, and the 'Reign of Law'," in Harry G. Frankfurt (ed.), *Leibniz: A Collection of Critical Essays*, Garden City, NY: Anchor Books, 1972, pp.160-68, and Ishiguro's "Leibniz's Theory of the Ideality of Relations" in Frankfurt (ed.), *op. cit.*, pp.191-213, where she identifies five theses which Leibniz held concerning relations, none of which lend any support to the reducibility thesis. A similar position is taken by Fred D'Agostino in "Leibniz on Compossibility and Relational Predicates," *Philosophical Quarterly* 26 (1976): 125-38.) Rescher, to be sure, is not unaware of Hintikka's and Ishiguro's criticisms, but he only deals with them very briefly in footnotes 17 (pp.87-88) and 33 (pp.89-90). Rescher's essay, therefore, does not adequately reflect the contentious nature of the place of the reducibility thesis in Leibniz's philosophy. Indeed, much of the work produced in this area near the time of and since the (original) publication of Rescher's essay in 1981 has further reinforced the lack of consensus on the reducibility thesis. (Compare, for example, Mark Kulstad's objections to the reducibility reading in "A Closer Look at Leibniz's Alleged Reduction of Relation," *Southern Journal of Philosophy* 18 (1980): 417-32, with the attempts to rehabilitate Leibnizian reductionism made by James R. Royse, "Leibniz and the Reducibility of Relations to Properties," *Studia Leibnitiana* 12 (1980): 179-204, and J.A. Cover, "Relations and Reduction in Leibniz," *Pacific Philosophical Quarterly* 70 (1989): 185-211.) At the very least, then, Rescher's reading of Leibniz as a reductionist with respect to intermonadic relations, despite the textual support in its favour (e.g., Leibniz's project of rewriting relational propositions), cannot be taken to be *obviously* correct.

The final overtly metaphysical chapter, "Leibniz and the Plurality of Space-Time Frameworks" (Chapter 4), which happens to be the oldest of the publications included in the collection (it is drawn from a paper published in 1977), considers the issue of whether each possible world, according to Leibniz, exhibits its own distinct spatiotemporal structure. It is somewhat surprising to find this

paper included in the collection, for there is a sizeable overlap between the contents of this paper and Sections 9-12 of Chapter 1. Here, as in Chapter 1, Rescher shows that Leibniz views each distinct possible world as carrying within it its own characteristic spatial, geometric, and temporal structure. There is, for Leibniz, no possibility of a 'superspace' embracing all possible worlds, since worlds are spatially unrelated, somewhat like the dreams of different people. A peculiar consequence of this view, as Rescher points out, is that "if the Eiffel Tower were a centimeter shorter, it would *not* really be in Paris any longer – not, that is to say, in *our* actual Paris" (100). Spatial relationships can obtain only within worlds, not across worlds, and so the alternative Eiffel Tower cannot have any spatial relations to the things in our world. Finally, what holds for space (according to Leibniz) also holds for time, in which case the temporal order will also vary from world to world.

II. Methodology – Epistemology

In Chapter 5 ("Leibniz and the Concept of a System"), Rescher address the questions, "Whence did Leibniz obtain the idea of a system? How did he develop it? What sort of role did it play in his philosophy?" (106). Rescher begins by briefly outlining the history of the term 'system', which originally referred to a compositely structured physical object, but by the latter half of the seventeenth century came to refer to a "particular approach to a certain subject—a particular theory or doctrine about it as articulated in an organized complex of concordant hypotheses" (108). And the person primarily responsible for this new usage was Leibniz, who (according to Rescher) was the first to speak of himself as having a system of philosophy. Leibniz, of course, was a great system builder. He sought, in every domain of philosophy, to systematize our knowledge of the fundamental concepts and principles at work—as is evidenced by the many principles that permeate his writings (Principle of Sufficient Reason, Principle of the Identity of Indiscernibles, Principle of Perfection, etc.). What led Leibniz to systematize was, essentially, his 'rationalism', that is to say, his view that reality can only be properly understood by means of an appropriate system of rational principles. But the kind of system developed by Leibniz was not one modeled after the classical, Euclidean axiomatic method, but one modeled on the newly discovered infinitesimal calculus. Rescher aptly calls this "a Renaissance-inspired busting of the classical bonds" (115).

Chapter 6 ("The Epistemology of Inductive Reasoning in Leibniz") is devoted to Leibniz the epistemologist, a facet of Leibniz that is often overlooked. Rescher's central thesis here is that Leibniz, far from being the textbook rationalist he is usually thought to be, is in fact a staunch empiricist. To validate this claim, Rescher shows how Leibniz attempts to extract both particular and general (contingent) truths from experience. In the case of general empirical truths, the procedure favored by Leibniz for discovering such truths is (what he calls) "the conjectural method *a priori*", a procedure which Rescher likens to the hypothetico-deductive method employed (according to some, at least) in present-day science.

In the seventh chapter ("Leibniz, Keynes, and the Rabbis"), Rescher takes issue with both Leibniz and Keynes over their endorsement of the principle of proportionate division. This principle is rooted in the intuition that a participant's appropriate share in some overall stake is to be measured by the probabilistically determined expectation that that person's gamble will succeed. If, for example, my probability of winning a game of dice is 1/3 while your probability of winning is 2/3, and the game is then terminated, then—since my chances of winning are exactly half of yours—the only fair way of dividing the stake is by way of the proportion 1:2. But according to Rescher, what Leibniz and Keynes failed to see is that this method of proportionate division, in some cases at least, violates rather than upholds the demands of distributive justice. And this, as Rescher interestingly points out, is something that was not overlooked by the medieval Talmudic rabbis. The cases where proportionate division conflicts with distributive justice have to do with *ownership determination*—for example, whoever puts forward the strongest case in favor of being the owner of a tract of land ought to be given the entire land, as opposed to the land being apportioned according to the probability that it actually belongs to each rival claimant.

III. Biography

In his first biographical essay (Chapter 8: "The Contributions of the Paris Period (1672-1676) to Leibniz's Metaphysics"), Rescher argues that, although most of Leibniz's metaphysics was in place by the end of the Parisian period (1676), Leibniz was reluctant to promulgate his system as he had yet to provide a clear way out of necessitarianism. The next chapter, "Leibniz Finds a Niche (1676-1677)", provides a fascinating insight into the life of Leibniz at the court of the Duke of Hanover, John Frederick. We here see Leibniz battling with the Hanover authori-

ties over questions of pay, rank, status, and duties, with Leibniz constantly petitioning the court for a position of political importance, only to be denied at every turn (we are never told why, however). Leibniz, nevertheless, gradually found a niche for himself as an "intellectual factotum, an expert-in-residence on matters of learning, science, and technology in a way unprecedented before and unparalleled after" (192). The last biographical chapter, "Leibniz Visits Vienna (1712-1714)", details the contacts established by Leibniz among the powerful and the learned during his fifth excursion in Vienna, which also featured a (failed) attempt to establish an Imperial Society of Sciences and his appointment as imperial counsellor—all the while enraging the Hanoverian court over his prolonged and unauthorized absence.

In the final chapter of the book, "Process Philosophy and Monadological Metaphysics", Rescher contends that if one wishes to develop a Leibnizian metaphysics consisting of monads whose identity lies in their descriptive uniqueness, then the most promising way to do so is by drawing upon the insights of process philosophy. No indication is given as to where this chapter was originally published; as far as I can tell, it first appeared (in slightly shorter form) in Rescher's *Process Philosophy: A Survey of Basic Issues* (Pittsburgh: University of Pittsburgh Press, 2000), ch.8.

The book also contains a bibliography listing Rescher's publications on Leibniz, as well as a name index. Unfortunately, there is no subject index and there are numerous typographical errors. Nevertheless, both new and seasoned students of Leibniz are likely to find this collection informative, stimulating, and delightful to read.

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