

***Causation in Early Modern Philosophy*, edited by Steven Nadler. University Park, Pa.: The Pennsylvania State University Press, 1993, 216pp. + x.**

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Hume observes in the *Treatise*: "There is no question, which on account of its importance, as well as difficulty, has caus'd more disputes both among antient and modern philosophers, than this concerning the efficacy of causes, or that quality which made them be followed by their effects" (1.3.14).¹

In their prolonged debate about causation, modern philosophers concern themselves with two grand issues—namely, how to describe the metaphysics of causation, that is, what is really going on in causal processes, and how these processes can be known. Within these grand issues, there are four central and specific questions: (1) Do bodies act on other bodies? (2) Do minds act on bodies? (3) Do bodies act on minds? (4) What, if any, is the division of labor between God and created things in producing change?

In this extremely useful volume, editor Steven Nadler has collected ten papers each of which contributes to a better understanding of causation in early modern philosophy—especially with respect to the grand issues and central questions. The variety of topics encompassed in this volume plus the fact that the papers are relatively short—about 25 printed pages—leaves the reader asking more questions and wanting more information. Such a volume—solid in its history and provocative in its content—constitutes an excellent foundation for a seminar on causation in the early modern period.

Daniel Garber's essay, "Descartes and Occasionalism," quickly reaches the conclusion that "in the material world, at least, God is the only genuine causal agent" (p. 14). Garber argues that this conclusion is a consequence of Descartes' "doctrine of continual re-creation" or, what is the same "divine sustenance" (pp. 12-13). Garber's basic argument is that, given Descartes' view that conserving the world is equivalent to re-creating (sustaining) it at each moment, Descartes is committed either to the *cinematic* view that at each moment of time God re-creates each finite substance complete with its set of properties including its place, or the *divine-impulse* view that at each moment God "causes motion by impulse, by a kind of divine shove" (p. 15). On the first view, it is clear that when God re-creates a material substance, God must either re-create it at the same place or a different place; hence local motion becomes a direct effect of God's will. On the second view, Garber's preferred interpretation, there may be causes of motion other than God,

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since the divine impulse, once given, in a sense belongs to bodies (p. 17).

There is no doubt that Descartes often writes as if he is committed to God as the only genuine cause in the material realm (or any realm) (p. 10-11). Certainly followers such as Anthony Le Grand, who construe Descartes as an occasionalist, read him in this way. But Descartes' occasionalism even for the material world is not clear cut; at least, as Garber notes, Descartes does not draw out the occasionalist implications of his divine re-creation view (p. 16). In the first place, when Descartes states his re-creation doctrine, he often suggests that God's *only* responsibility is to maintain the substance, not its properties (CSM II, 33).² Malebranche, who does argue for occasionalism in the material world from the doctrine of re-creation, formulates a very different version of that doctrine, a version in which it is clear that God re-creates each substance at each moment *together with all of its properties* at that moment. Second, at least in *The World*, Descartes clearly believes that because God is immutable, God can only be responsible for some (rectilinear) motions of bodies; it is the collision of bodies with bodies that causes "irregular and curved" motions (CSM I, 97; compare CSM I, 92-93).

Descartes' metaphysics, then, is, at best, only a partial occasionalism, since, as Garber shows, Descartes clearly holds that our minds can cause motions in bodies even if bodies cannot move other bodies (p. 25). But whether or not Descartes is an occasionalist, even in the material realm, is a complex question that remains unresolved. Still, Garber's essay makes a *prima facie* case for the occasionalist implications of Descartes' metaphysics, at least in the material realm. Garber, in the end, seems to agree with Hume's observation that Descartes ". . . insinuated the doctrine of the universal and sole advocacy of the Deity" but had the good sense not to insist upon it.³

Eileen O'Neill's article begins with a question that has long troubled Leibniz scholars, namely: Who are the influx philosophers that Leibniz refers to in his tripartite division among occasionalists, influx philosophers, and defenders of pre-established harmony? O'Neill's historically enlightening, clearly documented essay traces the "range of influx models" that were available to Leibniz (p. 32).

O'Neill outlines four basic influx models. The *Neoplatonic* model holds that: from an agent flows a distinct likeness that in no way diminishes the agent, and the agent is more perfect than the patient (p. 32-35). The *Scholastic* influx model agrees that there is an influx that flows from the more perfect to the less perfect and that influx is a likeness; the Scholastic model adds, however, that the influx does not take place in a space/time locus or through contact (pp. 36-37). Obviously, because of this addition, the Scholastic model is not suitable to corporeal interaction. However,

an *atomistic-corpuseular* (physical) influx model was developed by in Gassendi, Charleton, and Boyle (p. 41). The atomistic-corpuseular model requires that the agent transmit either an accident or a piece of the substance to the effect or patient (p. 41). Of course, these influxes are transmitted by contact at a locus in space/time, and they may diminish the agent. A variation on this model—the *multiplication-of-species* model—was developed to explain how an image is projected from a sensible body to the sense organs. Having identified these models, the question which O’Neill addresses is: Which model does Leibniz have in mind in his tripartite division? Her answer is complex. Leibniz is sympathetic with the mechanistic picture of body-body interaction through the transmission of *particles* or *corporeal* elements; however, he views other versions of the influx model as unintelligible (p. 52). The Neoplatonists, Scholastics, and accident transfer versions of the multiplication-of-species or atomistic-corpuseular models are all positions to be rejected on Leibniz’s view. But O’Neill concludes that Leibniz views the model of physical influx among bodies as compatible with his own theory of pre-established harmony (p. 54).

Did Descartes hold a physical influx model for body-body change? O’Neill thinks Descartes holds such a view, an interpretation which seems to stand in contradiction to Garber’s occasionalist interpretation of body-body interaction, since the influx view is, after all, an account of how one body can causally act upon another. It is interesting that Leibniz attributes occasionalism to the Cartesians, but never to Descartes himself (p. 55). O’Neill’s very insightful paper answers her original question while throwing considerable light on the several views of causation that were in contention in the seventeen century.

Steven Nadler’s contribution to this book, in addition to his introduction, is a paper entitled “The Occasionalism of Louis de la Forge.” Nadler’s central thesis is that although la Forge embraces occasionalism for body-body interactions, he allows a kind of causation to occur between bodies and minds and between minds and bodies (pp. 67-68). Nadler finds that la Forge embraces a mind-body union, which, although it is incomprehensible, involves a non-standard kind of causation (p. 61). Bodies can act on minds through this union, and minds can act on bodies. In both cases, because the mind is not extended and is incapable of motion, while bodies have both of these characteristics, the motions or ideas cannot be produced by contact (p. 69). But, Nadler notes: “. . . the mind-body causal relation is, on its own naturalistic terms, no more comprehensible than body-mind or body-body relations” (p. 69).

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La Forge, whether he is a pure occasionalist or a partial occasionalist, clearly highlights a problem that runs throughout the discussion of causation in the modern period, namely, that no one really knows what happens metaphysically in causal interaction. Even among the mechanists who reduce most changes to matter in motion, there is no widely held, coherent account of how (metaphysically) one body acts on another. Thus, in the *Traite* (p. 235), la Forge argues:

If I said that it is no more difficult to conceive how the mind of man, without being extended, can move the body, and how the body, without being a spiritual thing, can act on the mind, than to conceive how a body has the power to move itself and to communicate its motion to another body, I do not think I would find credence in the minds of many people; yet there is nothing more true.⁴

The difficulty with arguments like Nadler's is that even though philosophers like la Forge do allow special dependencies between mind and body, and they speak of the power of the will, it is unclear that any of this is incompatible with occasionalism. As Daisie Radner argues:

In occasionalism, God's productive activity is determined by certain creatures being in certain states. The mind would not have a certain thought if the body did not have a certain motion, because God would not have produced that thought were it not in the body's motion. Likewise, the body would not move in a certain way if the mind lacked a certain thought, because God does not give the body that motion unless the mind has that thought. The mind and body 'really act upon each other' in the sense that each plays a decisive role in what happens to the other.⁵

Unfortunately, it is even harder to determine which connections are causal and which ones are not, if all such connections are unintelligible, as la Forge clearly believes that they are.

Richard A. Watson's essay, "Malebranche, Models, and Causation" is a proper sequel to Nadler's essay on la Forge. Watson argues that Malebranche effectively banishes scientific explanations of change in favor of the ultimate "occult force," the power of God, something of which we have no comprehension. It is true that Malebranche dismisses powers in things as incomprehensible; in any case God does not need to depend on powers in things to do something. But, to dismiss powers in things in favor of one grand incomprehensible power is, Watson argues, "specious" (p. 83). The incomprehensibility of causation, noted by la Forge, serves as a justification for the substitution of another incomprehensible account of causation, namely, God's will.

Malebranche comes to occupy a special place in the debate about causation. On the one hand, Malebranche offers a view—God does it—which depends on two incomprehensible principles—God and creation—while banishing all other principles, not to mention scientific explanations. On the other hand, if one comes to see that God is incomprehensible and that religion is not science and that God explains nothing (or explains too much), then all that is left are (Hume's) regular associations. Thus, in this backhanded way, "Malebranche . . . lays the ground for instrumentalism and the highly successful New Science, void of occult forces, powers, and God" (p. 91).

Leibniz is famous for defending his theory of preestablished harmony. Mark A. Kulstad, in his essay "Causation and Preestablished Harmony in the Early Development of Leibniz's Philosophy," raises the question of just how Leibniz came to a full advocacy of his theory, which most scholars, including Kulstad, agree was in place by the latter half of the 1680s. Toward this end Kulstad argues for a number of theses, namely: (1) Leibniz never was a Cartesian dualist and for a time he accepted mind body interaction (p. 116). (2) During the Paris years Leibniz became familiar with Cartesianism and Malebranche, but at that time Leibniz probably did not separate Malebranche from Cartesianism (p. 104). (3) It was in the years immediately after Paris when Leibniz began to appreciate occasionalism, and it was from Spinoza that he came to reject mind-body interaction and to develop his own theory of parallelism (p. 109-114). Kulstad sees the theory of preestablished harmony as composed of two major theses. The thesis of *spontaneity* is "the view that created substances can be real causes, or, more specifically, that each state of a created substance arises causally from its preceding state" (p. 96). The second thesis is the thesis of *parallelism*, that is, "that the states of each creature correspond or agree perfectly with the states of every other creature at any given moment" (p. 96-97). The theory of preestablished harmony then is "the doctrine that God created finite substances in such a way that they do not causally interact but nonetheless exhibit parallelism in virtue of their own spontaneity" (p. 97).

Kulstad's elaboration of the theory of preestablished harmony is valuable in and of itself. It makes clear the key components of this theory. A point of conflict in this book is that Kulstad, in expounding Leibniz's theory of intrasubstantial causation, identifies the previous states of a substance as the causes of subsequent states whereas Rutherford, in his essay, identifies the intrinsic force of substances as the cause of all states of a substance (p. 137). Marc Bobro and I have argued recently in the *Monist* 79:3 (pp. 409-426) that the Rutherford view is correct. Leibniz is generally careful not to place a causal connection between the previous

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states of a substance and its subsequent states, although he does allow that the later states follow upon (temporally, not causally) the preceding states. Thus, Leibniz's principle of spontaneity is more properly described as the monadic agency view, that is, the doctrine that each state of each substance arises from its intrinsic nature which is the same as its active force or internal force (AG 144, AG 156).

God, Leibniz tells us, chooses among different possible worlds. Each world is a set of compossible individuals. Margaret D. Wilson, in her essay, "Compossibility and Law," notes, however, that two distinct interpretations of impossibility are defended in recent literature. One interpretation, which she identifies as the analytic interpretation, holds that two possible substances are 'impossible just in case the assumption that both are actualized gives rise to self-contradiction' (p. 120). The second interpretation, identified as the synthetic interpretation, is that "two substances are compossible if and only if they relate to each other in suitable ways under possible laws of nature" (p. 120).

Wilson is drawn to the analytic interpretation, in part, because when Leibniz speaks of possibles he usually seems to have the logical notion in mind; at least he must if he is to mean the same thing by 'possible' when the term occurs by itself or preceded by 'com'. Certainly, Leibniz never indicates an equivocation on 'possible' in these two uses. At the same time, Wilson seeks to accommodate Leibniz's remarks to Arnauld that God has principal designs or ends that also determine the possibility of a world (p. 130). Wilson's compromise between these seemingly incompatible schemes is both resourceful and sensible. She suggests (p. 131):

Possible substances S and T will be (analytically) impossible if the complete concept of S contains a fact, F, concerning the laws of nature of any world in which S might find itself, and the complete concept of T contains a fact that is (directly) logically inconsistent with F. For example, S's complete concept might contain the 'fact' that $e=mc^2$, while T's complete concept includes the "fact" that $e=2mc$.

In interpreting the history of philosophy it is often tempting to have one's cake and eat it too, especially where there are significant ambiguities in a set of texts. In this case, however, Wilson is convincing in her interpretation, and she very nicely captures the spirit of Leibniz's scientific rationalism with her explication of 'compossible'.

Leibniz scholars have long been aware of the fact that Leibniz and Malebranche, when they debate about miracles, often seem to be at cross purposes. Malebranche's discussion of miracles is complicated—see Sleigh's elaborations in *Leibniz and Arnauld* (pp. 154ff).⁶ But, Malebranche generally seems to mean by 'miracle' any

singular event not in accord with the general laws of nature.⁷ Leibniz, on the other hand, seems to mean any particular state of a substance that does not arise out of the intrinsic nature of that substance (AG 83).⁸ Donald Rutherford's essay "Natures, Laws, and Miracles: The Roots of Leibniz's Critique of Occasionalism" focuses on two major criticisms by Leibniz of the occasionalists. The first is that occasionalism neglects the intrinsic activity of substances and makes them "completely dependent on [God] for the production of their states and effects"; the second is that nature ceases to be intelligible if occasionalism is true (pp. 139, 141). Simply stated, if the intelligibility of nature depends upon our ability to distinguish the natural from the miraculous and the occasionalist denies that distinction, then the occasionalist denies that nature is intelligible (p. 152).

Rutherford goes on to argue that the very project of the *Theodicy*—to demonstrate God's wisdom and perfection—is at stake in this Leibniz-Malebranche debate. Thus, while Leibniz and Malebranche agree that the created world in some way reflects God's perfection, for Malebranche that perfection is found in God's ways of willing—simplicity, uniformity, variety—whereas for Leibniz God's perfection is found in the intrinsic perfection of the world that God creates (p. 154). Malebranche's God creates a world for his own glory; Leibniz's God creates a world that maximizes metaphysical goodness (pp. 155-156). In this way, Rutherford exposes some of the deep assumptions that motivate the difference between Malebranche and Leibniz; differences on miracles reflect differences about the intelligibility of God's creation.

Catherine Wilson's essay, "Constancy, Emergence, and Illusions: Obstacles to a Naturalistic Theory of Vision," explores different views among the modern philosophers as to how ideas are produced in perception. She believes that for Malebranche it was in the theory of perception that he found a place where "God might act, if not against nature, at least in such a way as to avert catastrophes and make a genuine, nonredundant contribution to human life" (p. 160). Given the dualism between mind and body in Descartes' philosophy, the most Descartes can say is that the mind forms the appropriate icon or representation when the body has exhausted the appropriate causal chains. It often appears, then, that the soul must do a bit of calculation in order to come up with the appropriate idea at the end of this physical sequence. But, Wilson notes, Malebranche is able to argue that the relationship between these causal chains and the idea produced is hardly fixed or invariable as it should be if the mind-body connections are like other connections (p. 164). Indeed, the complexity of perception—the fact that the same object of sense may "produce" different images—makes Descartes' quasi-causal account of

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perception impossible (p. 167). But Malebranche's own account of how ideas are produced walks a fine line between a naturalistic account and supernaturalistic speculations about the production of ideas (p. 168).

Wilson also contends that Leibniz, instead of consistently using the theory of preestablished harmony to deal with the problem of how the mind comes to form the right idea in perception, opts for a naturalistic solution. In this solution Leibniz assumes that "the information the mind needs in order to know what visual experience to have is all there; it is firmly determined by the physical situation." Of course, this assumption is precisely the one Malebranche denies (p. 175). Thus, Wilson finds in Leibniz, as she did with Malebranche, two opposing models for the production of ideas of sense; one is that "physical stimuli are naturally productive of experiences"; the second is the preestablished harmony in which "the sequence of experiences is laid down in advance and physical events play no productive role" (p. 176).

Thomas Lennon's essay is entitled: "Mechanism as a Silly Mouse: Bayle's Defense of Occasionalism against the Preestablished Harmony". Bayle, Lennon notes, is a harsh critic of the preestablished harmony. Whereas Leibniz argues, as Rutherford shows in his essay, that occasionalism makes the world unintelligible, Bayle argues that it is Leibniz's theory of preestablished harmony that makes the world unintelligible. If each substance is driven by its own spontaneous force, then such a view amounts to coincidentalism—Caesar's body walks into the Senate just as Caesar's mind formulates a speech (p. 186). Throughout his critique of Leibniz, Lennon notes, Bayle stresses the spontaneity of substances and the coincidental connections among them while ignoring the role of the principle of sufficient reason in determining these connections.

Lennon also argues that Bayle disagrees with both Malebranche and Leibniz in holding that "miracles can occur as a result of God's particular volitions" (p. 188). And, Bayle's willingness to allow isolated particular events means that not everything has a mechanical explanation. Furthermore, Bayle holds with Malebranche that there is a necessary connection between a real cause and its effect, and only God's will is necessarily connected to its effects (p. 190). Hence, even if there were a mechanical explanation for every event, it would not be sufficient; it would not be in terms of real causes. Both of these beliefs play into Bayle's rejection of mechanism.

It is interesting to note, although Lennon does not, that Leibniz defends the spontaneity of substances, although he endorses mechanistic explanations, precisely because he thinks that there is a need to go beyond mechanism—to find a

metaphysical explanation. "I tried to fill this gap, and have at last shown that *everything happens mechanically in nature, but that the principles of mechanism are metaphysical*" (AG 319). Thus, when Lennon concludes that occasionalist arguments ". . . represent for Bayle, not a philosophical *analysis* of mechanical causation, as they do perhaps for Malebranche and certainly for Hume, but a way of transcending *mechanical* causation," (p. 195) one cannot help but wonder why Bayle defended Malebranche instead of Leibniz, since the latter is also sympathetic with the need to go beyond mechanism.

At the end of the volume the reader will note significant disagreements among the authors. Is Descartes a body-body occasionalist as Garber contends or an interactionist as O'Neill suggests? When Leibniz identifies the cause of changes of states in substances, does he locate the cause in the prior states as Kulstad suggests or in the agency of the substance as Rutherford argues? Is Malebranche's occasionalism a *theory* of mind-body interaction as Catherine Wilson argues or virtual nonsense as Watson argues? But these disagreements among reputable scholars are precisely why this book is an excellent source for students and teachers.

¹David Hume, *A Treatise of Human Nature*, Second Edition revised by P. H. Nidditch, Oxford: Clarendon Press.

²Here I use the standard abbreviation for: John Cottingham, Robert Stoothoff, Dugald Murdoch, and Anthony Kenny (trans.) *The Philosophical Writings of Descartes*, 3 vols. Cambridge: Cambridge University Press, 1985-1992. Cited by volume and page.

³David Hume, *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, ed. L. A. Selby-Bigge, Third Edition revised P.H. Nidditch (Oxford: Clarendon Press, p. 73.

⁴As in Daisy Radner, "Occasionalism" in *Routledge History of Philosophy, vol. IV: The Renaissance and Seventeenth-century Rationalism*, edited by G. H. R. Parkinson (London and New York: Routledge), p. 352.

⁵*Ibid.*, p. 355.

⁶R.C. Sleigh, Jr. *Leibniz and Arnauld: A Commentary on Their Correspondence* (New Haven and London: Yale University Press, 1990).

⁷Willis Doney (trans). *Nicholas Malebranche: Entretiens sur la Métaphysique* (Dialogues on Metaphysics) (New York: Abaris Books, 1980), p. 175.

⁸Again, I use the standard abbreviation for: Roger Ariew and Daniel Garber (trans. and ed.) *G.W. Leibniz; Philosophical Essays* (Indianapolis and Cambridge: Hackett Publishing Co., 1989).