

motion is the moving body itself' (p. 129). Unfortunately, Hoffman here infers from an educated guess on Descartes's part to what Hoffman de facto takes as Descartes's considered view. Before Euler in the 1760s, no one could spell out with any rigor the dynamics of rigid spin. Descartes is no exception (nor is he at fault) for he tried to analyze as best he could a case beyond the reach of his kinematics. In other words, Descartes's views on rigid rotation are anomalous, not symptomatic, and more caution is required before we infer much from them about Descartes's theory of uniform translation, a phenomenon he *did* grasp clearly.

Paul Hoffman's untimely passing in 2010 means this book is his final word on Descartes. Nevertheless, in the essay just discussed he fruitfully continues his work on the survival of Aristotelian themes. Hoffman does much to remind us that 'Newtonian' mechanics is really an Enlightenment construct, mostly due to Euler; before that, there were individual theories: Descartes's, Huygens's, Leibniz's, and Newton's. He also urges us to look more closely at how these giants engaged with the Scholastics' influential duality of *actio* and *passio*, so as to see what modern mechanics retains of it. In this we find a place where Hoffman can continue in his role as provocateur in the history of early modern philosophy.

*The Division of the Humanities and
Social Sciences*
California Institute of Technology
1200 East California Boulevard
Pasadena, CA 91125 USA

GIDEON MANNING AND MARIUS STAN

doi:10.1093/mind/fzr037

Advance Access publication 6 July 2011

The Waning of Materialism, edited by Robert C. Koons and George Bealer. Oxford: Oxford University Press, 2010. Pp. xxxi + 490. H/b £60.00, \$99.00; P/b £22.50, \$40.00.

Materialism is widely taken as orthodoxy in the metaphysics and philosophy of mind. If the contributors to this book are right, orthodoxy is in trouble. While they differ on the details, they all reject materialism or harbour serious and specific doubts about its ultimate viability. And in these twenty-two new essays, they give many arguments. The result is a fine collection.

Many of the essays in this volume are quite ambitious; some include arguments for *substance dualism*, according to which we human persons are wholly immaterial beings. Such arguments are of particular interest since, if sound, they would tell against even the most modest versions of materialism.

David Barnett argues that conscious beings are mereologically simple. Let a person-pair be something composed of two people. Barnett's argument is: (i) person-pairs cannot be conscious, (ii) the thesis that only

mereologically simple beings can be conscious adequately explains (i), and (iii) no materialist-friendly hypotheses adequately explain (i). Barnett's argument is novel, but here are two weaknesses: the conclusion does not obviously tell against materialism, for we conscious human beings might (as Chisholm once suggested) be simple material objects. Nor is it obvious that there are such things as person-pairs; indeed, many who think composition is restricted (that some things might fail to compose something) have reason to deny the existence of person-pairs. Two persons fail to compose a conscious being, the materialist may plausibly maintain, because two persons fail to compose *anything at all*.

William Hasker draws from previous work (*The Emergent Self*, Ithaca, NY: Cornell University Press, 1999, pp. 122 ff.) and argues for a form of emergent substance dualism from the unity of conscious experience. Hasker's argument is: (i) our conscious experiences display a kind of unity, (ii) only a sufficiently functionally unified whole could be the subject of that kind of experience, and (iii) no materialist-friendly candidates (e.g. brains, bodies, nervous systems) display the required functional unity. The argument presented improves on Hasker's previous work; its premisses are now explicit, and objections from split-brain cases and the like get the attention they deserve. One weakness of the old argument remains: the materialist may embrace animalism—the thesis that we are organisms—and note that organisms do seem to display a striking kind of functional unity, with all of their parts directed by a single life process (this reply is not open to the materialist who thinks that each of us is a proper part of an organism).

E. J. Lowe argues that we are simple beings distinct from any material objects. One argument (in the first person) is: (i) while I could survive the replacement of every part of my body by a part of a different kind, (ii) neither my body nor any of its parts could survive such a replacement. Another argument is that (iii) I am the subject of just my mental states, and (iv) neither my body as a whole nor any part of it could be the subject of just my mental states. In support of (iv), Lowe claims that my mental states depend on no material object in the way they depend on *me*, since every material object is such that at least one of its parts might fail to exist even were I to have exactly the thoughts I in fact have.

Uwe Meixner argues that materialism about human persons cannot accommodate certain empirical phenomena. One (in the first person, but the point generalizes) is: (i) I am to be found at the location from which I am looking at the world (at the origin of my perspective on things), and (ii) no material object at that location is, plausibly, me. Like Moore, Meixner appeals to the thought that I am closer to my hands than to my feet. Meixner's other arguments draw from the phenomena of phantom itches and pains and of blurry visual experiences.

Martine Nida-Rümelin argues that we are neither material objects nor constituted by such. If I understand her correctly, her argument is: (i) if

materialism is true, then there can be no difference in facts about personal identity without a difference in empirical facts, and (ii) there are cases showing that facts about personal identity may vary without a difference in the empirical facts. Her argument for (ii) draws from reflection on a subject (Andrea) whose brain will be cut into halves and transplanted into bodies L and R. After the operation, either (a) Andrea is L (the body into which the left half was transplanted), (b) Andrea is R (the body into which the right half was transplanted), or (c) Andrea is neither. Options (a) and (b) report *different* facts of personal identity. This much is obvious to Andrea when considering what her future is like; there is a clear difference between (a) and (b), from *her* point of view. But both (a) and (b) are compatible with the empirical facts, supposing that L and R are perfectly symmetrical with respect to their empirical properties and relations to Andrea; so, there is personal identity difference without an empirical difference. Unfortunately, Nida-Rümelin does not consider what materialists have had to say about such puzzles of personal identity. Animalists, for example, have typically opted for the denial of (ii) via option (c), claiming that since neither L nor R are the same organism as Andrea, she does not survive the procedure at all or survives only as an unthinking organism.

These, then, are five of the more ambitious contributions. Some materialists may read this far and think ‘Well that’s not very impressive. Is that the best ambitious anti-materialists can do? A few arguments for substance dualism?’ I am unconvinced that this response is appropriate (and for what it is worth, I note this as a materialist). For it is no easy task to offer a materialist metaphysics that satisfactorily answers *all* of the above arguments. One might, for example, reply to Meixner by claiming that we are brains. This nicely saves the thought that I am to be found at the origin of my perspective on things (roughly, inside my head). But then one cannot help oneself to animalist manoeuvres in, say, answering Hasker’s argument. Navigating these waters is not obviously impossible, but it is tricky. Doing so is an important way materialists might illuminate their theories.

Most of this volume focuses on the difficulties for materialism in the metaphysics of mind and persons, but essays by Mario De Caro, Angus J. L. Menuge, and Robert C. Koons focus instead on epistemological and methodological problems. De Caro advocates an alternative to scientific naturalism, claiming that ‘agential’ concepts (normativity, responsibility, intentionality, and the like) cannot be reduced to scientific concepts. Koons argues that materialism is incompatible with our knowing much at all (about, among other things, the laws of nature, material objects, and the truths of logic, maths, and modality). Koons further argues that belief in materialism constitutes an undercutting defeater to certain knowledge claims (including knowledge of the truth of materialism itself). Menuge distinguishes between positing teleology in nature and the

scientific study of supernatural causes, and defends the former against twelve objections.

The papers by George Bealer, Laurence Bonjour, Eli Hirsch, Adam Pautz, Charles Siewert, and Stephen L. White capitalize on difficulties consciousness poses for materialism. Bealer argues that reductive functionalist theories falsely imply that when beings are conscious of thinking something, the content of their consciousness involves not the general relation of thinking, but one or another of its diverse physical realizer relations. Bonjour rightly points out that some of the usual motivations for materialism are weak and develops his own formulation of Frank Jackson's Knowledge Argument for property dualism. Hirsch offers a new formulation and defense of Saul Kripke's argument against the identification of phenomenal and physical properties. Pautz argues, on the basis of both a priori and empirical considerations, that sensory consciousness is a primitive relation. Siewert argues that eliminativist, functionalist, and representationalist versions of physicalism all fail to properly account for blindsight. White argues that materialist theories about the relation between phenomenal and physical properties run afoul of a plausible Fregean constraint.

Papers by Bernard W. Kobes and (naturally enough) Tyler Burge offer a detailed look at Burge's anti-individualism about mental content, his methodological views, and the modest dualism they accommodate.

Neal Judisch, and Timothy O'Connor and John Ross Churchill treat Jaegwon Kim's Supervenience Argument. Kim's argument, says Judisch, requires that mental properties be at once multiply realizable, have causally effective instances that are effective by virtue of their being mental, and be physically reducible. Either Kim's own theory is a failure (it does not meet all three requirements), or non-reductive physicalism is not nearly so badly off as Kim says it is. O'Connor and Churchill offer a variation on Kim's argument. They claim that in its strongest form, the argument crucially relies on a causal-powers metaphysics, according to which 'causation is not amenable to analysis in non-causal terms, but instead involves the exercise of ontologically primitive causal powers or capacities of particulars' (p. 262). They argue against recent attempts to reconcile a causal-powers metaphysics with non-reductive physicalism, concluding that realism about mental causation motivates allegiance to the *strong emergence* of intentional and phenomenal properties (roughly, such properties are ontologically basic, contribute non-redundant causal powers to their bearers, appear only in sufficiently organized and complex systems, and are causally originated and sustained by the properties of their bearers' fundamental parts).

Joseph Almog, Terry Horgan, Michael Jubien, and Brian Leftow develop alternatives to materialism. Almog argues that common sense commits us to a view that curiously blends materialism and dualism. The view is dualist because mental and physical events have different natures; the view is

materialist because mental and physical events are nonetheless necessarily related and interdependent. Horgan carefully (and helpfully, I think) articulates the metaphysical commitments of materialism. He then explicates *minimal emergentism*, according to which there are unexplainable necessitation relations between certain physical and non-physical properties. Such a framework, Horgan argues, best accounts for irreducibly psychic properties. The explanatory gap between physical and phenomenal properties is, on this view, a metaphysical gap. Despite this advantage, Horgan notes that he is ‘unable ... to believe in such metaphysically brute inter-level connections’ (p. 329). Jubien advances a version of property dualism and argues against token identity theories; such theories imply either an objectionable type identity or implausibly identify certain states even though they have distinct constituents. Leftow valiantly attempts to clearly state the Thomistic metaphysics of the human person, according to which human beings have souls that are live immaterial particulars (even though every human being is a single material substance). Leftow argues that no inconsistency arises from this conjunction. Of the papers in this group, I found those by Horgan and Jubien to be particularly fine; they exemplify a rare combination of provocativeness and clarity.

This is not a short book, and I cannot do justice to all of its arguments here. There are lots of them. Many deserve reply. Materialists would do well to pay attention.

Department of Philosophy
University of Notre Dame
100 Malloy Hall
Notre Dame, IN 46556
United States

ANDREW M. BAILEY

doi:10.1093/mind/fzr021

Advance Access publication 15 June 2011

Subjective Consciousness: A Self-Representational Theory, by Uriah Kriegel. Oxford: Oxford University Press, 2009. Pp. 333. H/b £37.00, P/b £18.99.

The idea that conscious states are about both the world and themselves is an old one, tracing its roots back to Brentano and perhaps even as far back as Aristotle. There is, according to this picture, an intrinsic reflexiveness at the heart of conscious experience. In his important and provocative book *Subjective Consciousness: A Self-Representational Theory*, Uriah Kriegel approaches this venerable idea with the sophisticated tool-kit of contemporary analytic philosophy of mind. He develops an intricate case for a naturalistic self-representational theory of consciousness — one that, if successful, explains phenomenal consciousness without a residual explanatory gap,