

METHODOLOGICAL QUESTIONS BEGGED

Colin Allen
Indiana University

ABSTRACT: I argue in opposition to Sam Rakover that the current lack of fully adequate theories of the subjective and qualitative aspects of mind does not justify the adoption of what he calls “methodological dualism” (Rakover, this issue). Scientific understanding of consciousness requires the continuation of attempts to explain it in terms of the neural mechanisms that support it. It would be premature to adopt a methodological stance that could foreclose on the possibility of more reductionistic approaches. The effects of such a stance would be especially pernicious insofar as methodological dualism lacks rigorous methods for testing specific models.

Key words: consciousness, qualia, reductionism, naturalistic philosophy

Rakover’s phrase “methodological dualism” echoes, intentionally or otherwise, Fodor’s earlier call to “methodological solipsism”—a research strategy Fodor once urged upon psychologists as the only practical hope for a science of the mind (Fodor, 1980). Thirty-three years later, many cognitive scientists and philosophers are still attempting what Fodor declared hopeless: namely, the development of a methodologically sound “naturalistic psychology”—i.e., the attempt to provide a scientific account of the semantic relationships holding between mental states and the world of objects and properties they represent (“intentionality” to philosophers).

Like Fodor’s methodological suggestion, Rakover’s methodological dualism deliberately aims to circumvent some perennial issues in the philosophy of mind. The primary obstacles that Rakover wishes to avoid are “the ontological Mind/Body problem and the debate on dualism vs. monism” (p. 19). But rather than circumventing these issues, it rather seems to me that he begs the question against monistic views by assuming that minds and mechanisms are fundamentally different kinds of process working side-by-side. He writes, “Given that behavior is based on many different processes (e.g., neurophysiological, cognitive, and mental) how is it possible to provide a coherent and comprehensive explanation for such behavior?” (p. 19). But in what sense is the separateness of these processes a given?

Rakover’s answer to this question seems to rest on his pessimism about progress towards more monistic views that seek to “reduce” (his word) mentalistic explanations to mechanistic explanations. A lot of people have tried to explain

AUTHOR’S NOTE: Please address correspondence to Colin Allen, Department of History & Philosophy of Science, Indiana University, 1011 E. Third Street, Bloomington, IN 47405, USA; Email: colallen@indiana.edu

mental states and processes mechanistically, and some of them have given up. Furthermore, many of them—philosophers, especially—see an explanatory gap that they do not know how to bridge (Levine, 1983). Rakover sides with McGinn’s mysterian view that we are perhaps too cognitively limited to understand the relationship between mind and body (McGinn, 1989). My own view is that we are, at present, too cognitively limited to know whether or not we are too cognitively limited to understand how certain aspects of consciousness arise from neural tissue. Nevertheless, we know a lot more about such matters than scientists did a century ago, and I believe it is premature to bet against further progress. Furthermore, the only way to make progress is precisely to keep on trying to explain mental processes mechanistically, not by abandoning all hope and adopting a methodological stance that forecloses on that possibility.

Perhaps I am merely playing optimist to Rakover’s pessimist. It must be conceded that we do not, as yet, have a theory of consciousness that persuades everyone. However, the six quotations at the head of Rakover’s introduction are not all as supportive of his stance as he imagines. For example, Putnam (1975) does not, in fact, argue that the mind/brain problem is intractable, but that its treatment must be functional (rather than materially tied to physics or chemistry). Similarly, Dietrich & Hardcastle (2005) offer a more nuanced view than Rakover’s short excerpt suggests, for they reject the typical way of framing the problem, which he nevertheless adopts. Furthermore, the five quotations besides Putnam’s may only be charitably interpreted to be narrowly about the subjective, phenomenal aspects of experience known to philosophers as “qualia.” Rakover simply ignores theories of qualia by neuroscientists such as Tononi (2008), and although it is plausible (even axiomatic) to many philosophers that such theories cannot explain qualia, it is by no means universally agreed amongst philosophers that there is anything here worth explaining (Dennett, 1991).

To limit Rakover’s claim about the limits of mechanistic explanation to just the qualitative aspects of experience would not, however, be sufficient to motivate his methodological dualism. Rakover does not explicitly address the distinction, familiar to philosophers, between the functional and the qualitative aspects of mental states and processes. Nor does he specify the role of qualitative aspects of mental states and processes in the kinds of will/belief explanations that he means to capture with his mentalistic explanation scheme [Will/ Belief]: *If X wants G and believes that behavior B will realize her will, then X will perform B*. Readers may again be experiencing some degree of *Fodor vu* (although, as we shall see below, he does not offer this scheme as a *ceteris paribus* law in the way that Fodor did). Irrespective of the exact role that [Will/Belief] plays, it is an entirely mainstream position in the philosophy of science and the philosophy of mind that much of the belief–desire structure of the mind (i.e., our “will/belief” psychology, as Rakover terms it) can be captured in neurophysiological and computational terms, as can many of the structural aspects of consciousness itself. Even self-avowed dualists such as Chalmers (1996) assert that there are “easy” problems of consciousness that can be solved within a functionalist framework. The philosophical dispute concerns the scientific (in)significance of residual phenomenological aspects of

METHODOLOGICAL QUESTIONS BEGGED

consciousness (i.e., qualia). The irreducibility of qualia (if true) does not necessarily recommend a dualistic stance towards applications of the [Will/Belief] scheme.

Rakover's proposal is to effect an "integration" of mechanistic and mentalistic explanations within a common "Multi-Explanation Framework." The application of this framework to the explanation of a particular behavior is envisaged as matching the different kinds of explanation to the behavior and its components. Rakover's basic idea is that mechanistic explanations have exclusive domain over the bits of behavior that they are sufficient to explain, and mentalistic explanations can cover the rest. He rejects the idea that mentalistic explanations reflect a particular level of explanation for behaviors that can also be explained mechanistically. He prefers, instead, to envisage a patchwork quilt in which certain components of behavior are explained entirely mechanistically and others are explained entirely mentalistically—the process he calls "matching." The clear delineation of the patches and their assignment to different explanatory approaches constitutes the dualism in his approach.

Lest this seem like a mere gap-filling exercise—covering the parts that mechanistic explanations have not yet reached—Rakover needs to convince us that mentalistic explanations are both genuinely needed and genuinely explanatory. His argument that they are needed stems from his already-discussed pessimism about attempts to explain mental phenomena in mechanistic terms. The claim that they are explanatory derives from an argument about the properties of specific instances of the scheme. The scheme itself is not, according to Rakover, either a law or an empirical generalization. However, he argues that it meets five criteria for being an "explanation scheme": (1) it generates explanatory instances that (2) hypothetically link behaviors to internal states that "give reasons" for behaviors such that (3) these reasons rationally justify the behavior, and (4) and are "attached to reality" so as to be testable, but in such a way that (5) the evidence brought to bear on any specific instance (hypothesis) does not confirm or disconfirm the general scheme.

The trouble with this is that Rakover simply asserts what many others have denied without addressing some quite powerful arguments that have been arrayed against similar views. Take, for example, the condition (4), which he labels *Empiricism*. He gives this example: We can test the specific explanation that David waves his hand to bid Ruth farewell because each will select photographs of each other from an array of 10 different photos, and Ruth "will confirm that she saw David waving the hand to say goodbye, and also that she waved back" (p. 29). But how exactly is the capacity to discriminate Ruth's image from the images of other individuals evidence in favor of David's specific desire to bid her farewell? One might think that visual identification of Ruth is a prerequisite to having any intentions towards her—but that is not right if David is blind or prosopagnosic. Of course, if we know that David has normal vision and face recognition capacities, then the fact that he can identify Ruth in a lineup does provide evidence that he could form some intention or other that is directed specifically towards her, but it hardly suffices to test the claim that he had this specific intention when he waved. If he tells us that this is what he intended, that would provide some additional

evidence, but it is still defeasible. He might not have wanted to admit to Ruth that he was actually waving to his secret lover, who was passing just behind her. Ruth's own interpretation of the event and her behavior within it is similarly questionable.

My point here is not to say that we should never take such things as evidence for mentalistic attributions. We plainly do so quite successfully for lots of ordinary purposes. And, of course, the alternative secret-lover explanation of the wave could perhaps be ruled out from video footage, given the ubiquity of CCTV these days. But scientific explanation typically demands high standards of replicability and independent verification—standards that are not obviously met by the folksy example of David waving goodbye to Ruth. Rakover needs to say more about how the multiplicity of ways that reasons may “attach to reality” is compatible with strong empirical methods applicable to behaviors of scientific interest to psychologists.

Consider, also, condition (5), which Rakover labels *Empirical Irrelevance*. In my view, “irrelevance” is too strong. While many philosophers of science acknowledge that explanatory schemes are not *directly* testable, it is nevertheless widely held that confirmation/disconfirmation does flow between specific explanation instances and general explanation schemes. For example, Lloyd (1994) argues that this is the relationship between the theory of evolution by natural selection (an explanatory scheme) and the particular instances of the general theory that constitute the specific explanatory models for particular evolutionary events. True, the disconfirmation of any particular evolutionary model does not refute the whole theory, but the empirical evidence in favor of so many successful specific models does lend support to the overall theory. The parallel here could be helpful if it allows a more sophisticated argument to be developed to show that the purposive explanation scheme [Will/Belief] is on a par with other scientific explanation schemes. But there is a caveat, returning us to the previous point: the indirect confirmation or disconfirmation of explanatory schemes depends on having rigorous methods for testing the specific instances or models. I have argued that Rakover has not provided this for the mentalistic component of his multi-explanation framework.

Hence, I am not convinced that we should adopt Rakover's methodological dualism. Mentalistic explanation may remain our only viable tool in certain areas of psychology and in daily life for a long time to come, even after we gain a better mechanistic understanding of the complexities of human psychology. Nevertheless, reductive methodologies that seek to explain mental states and processes mechanistically may constitute the best approach to testing and improving our currently-limited understanding of cognitively complex organisms such as ourselves. In any case, it is too soon to foreclose on dreams of unification.

METHODOLOGICAL QUESTIONS BEGGED

References

- Chalmers, D. (1996). *The conscious mind: In search of a fundamental theory*. New York: Oxford University Press.
- Dennett, D. C. (1991). *Consciousness explained*. Boston: Little, Brown & Company.
- Dietrich, E., & Hardcastle, V. G. (2005). *Sisyphus's boulder: Consciousness and the limits of the knowable*. Amsterdam/Philadelphia: John Benjamins.
- Fodor, J. A. (1980). Methodological solipsism considered as a research strategy in cognitive psychology. *Behavioral and Brain Sciences*, 3, 63-73.
- Levine, J. (1983). Materialism and qualia: The explanatory gap. *Pacific Philosophical Quarterly*, 64, 354-361.
- Lloyd, E. A. (1994). *The structure and confirmation of evolutionary theory*. Princeton University Press.
- McGinn, C. (1989). Can we solve the mind-body problem? *Mind*, 98, 349-366.
- Putnam, H. (1975). *Mind, language and reality: Philosophical papers*. New York: Cambridge University Press.
- Rakover, S. S. (2011). A plea for methodological dualism and a multi-explanation framework in psychology. *Behavior and Philosophy*, 39/40, 17-43.
- Tononi, G. (2008). Consciousness as integrated information: A provisional manifesto. *Biological Bulletin*, 215, 216-242.