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A Physicalist Manifesto. By Andrew Melnyk. Cambridge University Press, 2003. Pp. 327. Price \$70.00 hb

A Physicalist Manifesto is a presentation and defense of what its author calls *Realization Physicalism* ("RP" henceforth). Melnyk's approach is systematic and clear though argumentatively rigorous in a way non-specialists might find occasionally challenging. His arguments and definitions are carefully crafted to address the host of technical issues constituting philosophy of mind's current stock in trade; I could hardly do them justice here, and will simply describe RP in a general way that locates it among a range of more familiar options.

Let *physicalism* designate the claim that every actual causal or contingent thing (object, property, event) is either physical in the sense of being postulated by the current consensus theories of physics, or else depends on physical things in a sense strong enough to preserve physicalist intuitions about what exists and what doesn't (chemicals, automobiles, kidneys, and the like are OK by such intuitions; ghosts and vital spirits are not). Very roughly, physicalism implies that cognitively meaningful forms of human discourse fall into one of three categories. Their statements either (a) express truths about physical things, or (b) express truths about things strongly dependent on physical things, or else (c) have no purchase on reality at all. Physicalists of a *retentive* mindset try to argue that psychological discourse belongs to categories (a) or (b); those of an *eliminative* mindset favor category (c). The history of modern physicalism has been largely a retentivist story; views like Melnyk's are the latest chapter.

The Twentieth Century's first retentivists were logical behaviorists and identity theorists. Both attempted in different ways to place psychological discourse in category (a), to argue that

the mental is part of the domain countenanced by the natural sciences narrowly construed. By the late 60s, however, confidence in this strategy had begun to wane, and by the mid-70s its popularity had been almost completely eclipsed by attempts (still dominant) to place psychological discourse in category (b). Melnyk is best understood as defending a theory of this latter sort. The idea behind such theories is that the natural sciences (paradigmatically physics) constitute a core sense of what it is to be physical. Certain things (automobiles and houses, as well as beliefs, desires, pains, and the like) while not postulated by the natural sciences, and hence not physical in this core sense, are nevertheless dependent on physical things in a way ghosts, vital spirits, and other *entia non grata* could never be – a fact supposed to explain why money, books, and mental states don't offend physicalist intuitions while ghosts and other spooky things do.

Strictly speaking RP is not committed to retentivism at all; though Melnyk would like them to be compatible (eliminativism seems to most philosophers a *reductio ad absurdum* of any view implying it), so much of his *Manifesto* is devoted to explaining how RP can be retentive. The burden of theories that would place psychological discourse in category (b) is to specify a psychophysical dependence relation strong enough to preserve physicalists' ontological intuitions, but not so strong as to collapse into the (allegedly misguided) attempt to place psychological discourse in category (a) – to be *physicalist*, in other words, without being *reductive* the way identity theory and behaviorism are. (RP is committed to reductionism, as we'll see, but in a different sense.) Melnyk's candidate for this psychophysical relation is *physical realization*.

The notion of realization is based on the familiar idea that mental types are functional (that is, second- or higher-order) types: instantiating a mental type, M, amounts to instantiating

some (perhaps physical) type, P, the token of which satisfies a certain condition, C. Instantiating pain, for instance, might amount to instantiating some type or other the tokens of which typically have certain causes and effects. A token, x, of type P *realizes* a token of functional type M just in case x satisfies M's associated condition, C; and x *physically realizes* the M token just in case P is a physical type, and x's realizing the M token is purely a consequence of the world's physical history and the operation in it of physical laws. RP claims that everything is either physical or physically realized – that every actual causal or contingent token is either a token of a physical type or a physically realized token of some non-physical functional type. The retentivist program hinges, therefore, on the identity of mental types with functional types, and Melnyk defends the possibility (and plausibility) of such identities against several detractors.

RP has several interesting implications; I will mention two. First, RP implies that the mental globally supervenes on the physical in the sense that any world indiscernible from the actual world physically will be indiscernible from it *tout court*. But while the postulation of unexplainable supervenience laws has been the Achilles' heel of supervenience-based theories (in addition to the difficulty of specifying a supervenience relation of the appropriate strength), RP enjoys the advantage of being able to explain why the mental supervenes on the physical; namely, mental phenomena are physically realized. Friends of supervenience might argue *tu quoque* that RP faces the same problem: Isn't it supposed to be a brute fact that some things are physically realized? Melnyk also argues, however, that without a commitment to something at least as strong as RP, supervenience ends up being too weak to countenance physicalism.

Secondly, although retentive RP is committed to psychofunctional type identities, it is not committed to psychophysical type identities, and therefore does not imply reductionism in the standard sense. It nevertheless does imply that every positive fact has a complete physical

explanation (one appealing to physical facts and necessary truths alone). Melnyk calls this *reduction in the core sense*, and argues that it is compatible with the explanatory autonomy of both the special sciences and “honorary” sciences such as vernacular psychology. Facts often admit of multiple causal explanations, he claims, so human behavior might admit of both a psychological explanation and a biochemical one. He argues that this doesn’t generate problems with overdetermination, for the latter requires the independence of overdetermining causal factors; according to RP, however, special- and honorary-scientific causes are not independent of physical causes since the latter physically realize them. So RP does not imply overdetermination.

In an excellent chapter (too intricate to summarize), Melnyk develops a Humean account of causation and causal relevance, and argues that RP does not imply that special- and honorary-scientific types or tokens are epiphenomenal.

The final chapters of the book are devoted to evaluating arguments for and against RP. Given what RP claims, says Melnyk, arguments of both sorts would have to be *a posteriori*. He argues forcefully that the best available scientific evidence supports the claim that macrophysical, chemical, and biological phenomena are either physical or physically realized. Psychology, however, has always been a sticking point for physicalists. The reason, Melnyk claims, is that neuroscience has not yet reached the point at which it can provide explanations of mental phenomena detailed enough to support realization claims analogous to those of chemistry and biology. (This sounds disconcerting familiar; though it’s probably best physicalists toe the line.) But even without evidence of this sort, says Melnyk, there are at least three argumentative strategies that support physicalism: (i) inductive generalization from past scientific success; (ii) *reductio ad absurdum* from the denial of RP to the overdetermination of physical effects by

physical and non-physical causes; and (iii) inference to the best explanation from the existence of psychophysical correlations.

Melnyk's *a posteriori* focus implies that the modal arguments against physicalism currently *en vogue* have no teeth. Conceivability is not in general a guide to possibility (as evinced by standard Kripke-Putnam modal semantics *cum* stock examples), and hence the conceivability of non-physical minds is not sufficient to establish its possibility. Melnyk's dismissal of such arguments seems rather quick, however, for attempts both to construct alternative semantics and to circumscribe more narrow domains in which conceivability-possibility relations might obtain have become rather sophisticated. But the short shrift he gives these arguments doesn't detract from his positive accomplishments, and fits the manifesto genre.

Melnyk clearly and systematically articulates a physicalist theory that avoids many of the pitfalls that have compromised similar attempts. His presentation and defense of physicalism is as thorough as that of anyone engaged in the program, and is worth serious consideration by physicalists and anti-physicalists alike.