

- ackson, Frank 1994. *Armchair Metaphysics, in Philosophy in Mind*, ed. J. O'Leary-Hawthorne and M. Michael, Dordrecht: Kluwer Academic Publishing.
- Crupke, Saul 1972. *Naming and Necessity, in Semantics of Natural Language*, ed. D. Davidson and G. Harman, Dordrecht: D. Reidel.
- evine, Joseph 1983. *Materialism and Qualia: The Explanatory Gap, Pacific Philosophical Quarterly* 64: 354–61.
- evine, Joseph 1993. *On Leaving Out What It's Like*, in Davies and Humphreys 1993.
- evine, Joseph 2001. *Purple Haze: The Puzzle of Conscious Experience*, New York: Oxford University Press.
- ewis, David 1966. *An Argument for the Identity Theory, Journal of Philosophy* 63: 17–25.
- ear, Brian 1990. *Phenomenal States*, in Tomberlin 1990.
- ycan, W. G. 1987. *Consciousness*, Cambridge MA: Bradford Books/MIT Press.
- ycan, W. G. 1990. *What is the 'Subjectivity' of the Mental?*, in Tomberlin 1990.
- ycan, W. G. 1996. *Consciousness and Experience*, Cambridge MA: Bradford Books/MIT Press.
- ycan, W. G. 2003. *Perspectival Representation and the Knowledge Argument*, in *Consciousness: New Philosophical Perspectives*, ed. Q. Smith and A. Jokic, Oxford: Oxford University Press, 2003: 384–95.
- McGinn, Colin 1983. *The Subjective View*, Oxford: Oxford University Press.
- McGinn, Colin 1991. *The Problem of Consciousness*, Oxford: Basil Blackwell.
- McMullen, Carolyn 1985. 'Knowing What It's Like' and the Essential Indexical, *Philosophical Studies* 48: 211–34.
- lagel, Thomas 1974. *What is It Like To Be a Bat?*, *Philosophical Review* 82: 435–50.
- lagel, Thomas 1979. *Mortal Questions*, Cambridge: Cambridge University Press.
- affman, Diana 1995. *On the Persistence of Phenomenology*, in *Conscious Experience*, ed. Thomas Metzinger, Tucson: University of Arizona Press.
- ey, Georges 1991. *Sensations in a Language of Thought*, in *Philosophical Issues, I: Consciousness*, ed. E. Villanueva, Atascadero CA: Ridgeview Publishing.
- osenthal, David 1993. *Thinking that One Thinks*, in Davies and Humphreys 1993.
- mart, J. J. C. 1959. *Sensations and Brain Processes, Philosophical Review* 68: 141–56.
- omberlin, James E., ed., 1990. *Philosophical Perspectives, 4: Action Theory and Philosophy of Mind*, Atascadero CA: Ridgeview Publishing.
- ye, Michael 1986. *The Subjective Qualities of Experience, Mind* 95: 1–17.
- ye, Michael 1995. *Ten Problems of Consciousness*, Cambridge MA: Bradford Books/MIT Press.
- an Gulick, Robert 1985. *Physicalism and the Subjectivity of the Mental, Philosophical Topics* 13: 51–70.

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BOOK REVIEWS

Merricks, Trenton, *Objects and Persons*, Oxford: Clarendon Press, 2001, pp. xii + 203, £30 (cloth), £14.99 (paper).

In *Objects and Persons*, Merricks addresses many important topics, and argues for his positions with wit and vigour. (The first sentence is, 'In this book I shall show that there are no books'.) Merricks critically assesses the deliverances of what he takes to be 'folk ontology'. Folk ontology regards books, baseballs, statues, and organisms as existing objects. Merricks argues, on the one hand, that there are no baseballs, statues, or other inanimate macrophysical objects, but, on the other hand, that there are organisms. Thus, like van Inwagen, Merricks is an eliminativist about inanimate macrophysical objects, but a realist about organisms—at least about conscious organisms.

Merricks bases the ontological asymmetry between animate and inanimate macrophysical objects on a putative difference in causal powers: if statues or baseballs existed, their causal powers would be equivalent to those of the atoms that compose them [128]. But conscious organisms, in contrast, have nonredundant causal powers; indeed, 'human persons have downward causal control over their constituent atoms' [159]. So, inanimate macrophysical objects are, or would be if they existed, 'causally redundant' [viii], but human organisms are not. Such a causal difference would ground an ontological difference.

The first part of the book is the argument for eliminativism concerning inanimate macrophysical objects. After arguing that eliminativism can treat a variety of puzzle cases, Merricks presents a direct argument in two stages: first, he undermines our evidence for baseballs by pointing out that sensory evidence would not distinguish between views that there is a baseball and there are atoms-arranged-baseballwise. So, 'unless we have some extraordinary reasons, we have no good reason to believe in baseballs' [73]. Second, he appeals to his Overdetermination Argument to show that baseballs (as opposed to atoms arranged baseballwise) have no causal efficacy.

For the Overdetermination Argument, we need two notions. First, an object O is *causally irrelevant* to whether the xs acting in concert, cause an effect E if and only if (i) O is not one of the xs; (ii) O is not a partial cause of E, alongside the xs; (iii) none of the xs cause O to cause E; and (iv) O does not cause any of the xs to cause E [57]. Second, an event E is *overdetermined* if: (i) E is caused by an object O; (ii) O is causally irrelevant to whether some other object or objects cause E; (iii) the other object or objects 'do indeed cause' E [58].

Here is a generalization of the Overdetermination Argument:

- (1*) [Inanimate macrophysical] Object O—if O exists—is causally irrelevant to whether its parts, P1, ... Pn, acting in concert, cause effect E.
 (2*) P1, ... Pn cause E.
 (3*) E is not overdetermined.
 So, (4*) If O exists, O does not cause E [79].

Here is the argument for the elimination of inanimate macrophysical objects:

- 1 If there were inanimate macrophysical objects, they would not have causal powers (generalization of the Overdetermination Argument).
- 2 If there were inanimate macrophysical objects, they would have causal powers. (Thesis linking existence to causal powers [81].)
- So, 3. There are no inanimate macrophysical objects [81].

The Overdetermination Argument is supposed to support the first premise of the argument for eliminativism. But is the universal generalization of the Overdetermination Argument sound? It seems not: A flag may have the effect of bringing tears to your eyes. Then, either the parts of the flag have that effect or they do not. If they do not, then (1*) is true, but (2*) is false. If they do, then (2*) is true, but (1*) is false: If your tears were an effect of the constituent atoms, it would be only because those atoms made up a flag: so, the flag would not be causally irrelevant to the atoms' causing your tears. Either

way, one of the premises is false. So, I don't think that the generalization of the Overdetermination Argument is sound.

Closer to Merricks's own examples, consider statues and baseballs as counterexamples to (2*). Statues, and not their 'parts working in concert', cause the owners' insurance bills to soar [128]. Baseballs, and not their 'parts working in concert', cause fans to fight [80]. Their parts have nothing to do with statues' or baseballs' causal connections with soaring insurance premiums or fighting fans. Or again: the moon, and not its parts, causes tidal action in virtue of gravitational attraction. Merricks overlooks the huge class of inanimate objects whose causal powers do not supervene on their micro-parts. Yet such objects figure prominently in the folk ontology at which Merricks takes aim.

It thus seems that inanimate objects have many effects in virtue of having properties that are not properties of the 'constituent atoms, acting in concert'. So, commitment to inanimate macrophysical objects does not lead to systematic causal overdetermination, and the argument for elimination of inanimate macrophysical objects does not succeed. (The flag example, and others like it, also show that inanimate macrophysical objects can satisfy Step One of the argument to show that human persons are not epiphenomenal [89].)

In the second part of the book, Merricks argues that the considerations that he thinks lead to the elimination of inanimate macrophysical objects do not eliminate us. Conscious organisms escape the net of the Overdetermination Argument. Human organisms, dogs, and dolphins are 'causally non-redundant' [114–15]. Merricks sees a 'deep, fundamental difference' between conscious organisms and inanimate macrophysical objects in that organisms 'cause things that their parts do not'. Conscious organisms have nonredundant causal powers and 'exercise downward causal control over their parts' [116].

Merricks' argument that human organisms do not fall to the Overdetermination Argument is quite long and arduous. Although I cannot begin to do it justice here, let me just note that if it is sound, then there can be some atoms that compose a person, and some atoms intrinsically like the first atoms, with the same spatiotemporal and causal interrelations, that do not compose a person [94]. Echoing the conclusion of Chalmers's 'Zombie' argument as it does, this thesis is an odd consequence for a view that aspires to be materialistic. (I agree that persons have non-redundant causal powers that do not supervene on their microparts; however, I do not believe that the relation between a person and the atoms in her is a mereological relation of 'composition'.)

I want to conclude by asking two larger questions about Merricks's position. First: to what extent is his noneliminativist view of human organisms really a materialistic view, as he intends it? Four things make me wonder: (1) Merricks holds that we are organisms, but does not want to invoke biological persistence conditions [133]. (2) He thinks that no organs exist [135]. (3) He also supports incompatibilist free will [158], a position that seems to me to exempt human free choices from the laws of nature. (Does he think that dogs and dolphins also have incompatibilist free will? If not, why not?) (4) As I mentioned, Merricks appears to think that duplicate arrangements of atoms can differ in whether they compose a human organism [94]. What kind of materialism is compatible with these theses?

Second: to what extent is Merricks's eliminativist view of inanimate macrophysical objects a substantive alternative to folk ontology? One may wonder whether the difference between affirming and denying that there's a statue where there are atoms-arranged-statue-wise resides in a choice of words: you can translate my statue-sentences into atoms-arranged-statue-wise-sentences, and I can translate the other way. (In order to find a genuine disagreement, Merricks denies that composition is organism-wise and human organisms that, he grants, do exist?)

Another reason to doubt whether Merricks's position on inanimate macrophysical objects is a genuine alternative to folk ontology springs from his distinction between 'true' and 'nearly as good as true'. 'Any folk-ontological claim of the form "F exists" is nearly as good as true iff (i) "F exists" is false, and (ii) there are things arranged F-wise' [171]. What work does the alleged distinction between 'true' and 'nearly as good as true' do? When Merricks says, 'There's a chair' in ordinary contexts, he expresses the proposition that there are atoms-arranged-chair-wise. The proposition that Merricks expresses is true iff the proposition that the folk express by the same sentence is nearly as good as true [186]. Merricks argues that eliminativism can accommodate our practices: It doesn't matter whether the batter swings a bat or swings atoms-arranged-bat-wise. Just so.

Finally, consider Merricks's response to the charge that our evidence for microscopia, which Merricks thinks do exist, depends on laboratory equipment that, on his view, does not exist. 'In response, just so long as our "laboratory equipment beliefs" are nearly as good as true, we can make use of those beliefs. . . in coming to know about atoms or other microscopic entities' [175]. This suggests that 'nearly as good as true' is really just as good as 'true'. One may suspect that appeal to things arranged F-wise is just a metaphysician's odd way of talking about Fs.

Musgrave, Alan, *Essays on Realism and Rationalism*, Amsterdam & Atlanta: Rodopi, 1999 pp. xi + 367, US\$83.

This volume of essays brings together the central work, work spread over many years, of an important philosopher of science. Alan Musgrave owes his intellectual formation to Karl Popper and Popper's thought remains the single greatest influence on his thought, but he is very far from being an apologist or disciple. We are given positions of Musgrave's own, positions well worthy of independent consideration.

The first, easier, portion of the book is a defence of scientific realism. Chapter 1 is based on a 1971 paper where he criticizes *descriptivism*, the view that scientific theories do not explain but merely describe. He shows that such theories both describe and explain, and that Galileo and Newton, for instance, understood this very well. Newton's law of gravitation is descriptive but it can be used to explain all sorts of things, for instance the tides. The question then arises whether there may not be ultimate theories, perhaps even ultimate theories of everything that explain everything else. If such theories are true, they will be explainers that are not themselves explained.

Musgrave allows that this is a possibility, although he finds Popper's position that the universe 'is like an onion with infinitely many skins to be peeled aside successively, but with no ultimate centre' attractive. (He does, though, reject Popper's epistemological arguments for this thesis.) At the end of the paper he gives a little list of propositions a scientific realist might uphold. (1) Scientific theories are true or false descriptions of reality, which can explain features of it. He accepts this. (2) Some of these theories can be *established* as true. He agrees with Popper in rejecting this. (3) Some of these theories are *ultimate*, and so cannot be explained. (4) One of these theories explains everything (except presumably itself?). (3) and (4) together with (2), he says, are rejected by *modest realism* to which he seems attracted. But would it not be more modest to be *agnostic* about (3) and (4)? For myself, I'd even recommend a degree of agnosticism about (2) though that may depend on the exact force of 'establish'.

Instrumentalists go even further than descriptivists, denying that scientific theories are even descriptive. Chapter 2 is an extended rebuttal of the view upheld by Pierre Duhem that instrumentalism was rife in ancient Greek astronomical thinking, in particular in Plato and Ptolemy. This view was once orthodox, but is now quite unfashionable, partly no doubt as the result of the labours of Musgrave himself. I have no expertise on the matter but his reclaiming of Plato and Ptolemy for astronomical realism, for holding that those crystalline spheres really exist and carry the heavenly bodies around, seems exceedingly plausible. The Greeks were surely realists in their scientific speculations. Instrumentalism is a modern disease.

A useful twin Chapter 4 examines the once popular Wittgensteinian instrumentalism. The central device used by this school was to substitute mere inference licences for general propositions that are susceptible of truth and falsity. Inference licences are not propositions at all. One major figure who took this view was Gilbert Ryle. Musgrave shows, rather easily I think, that the arguments advanced for this position are not strong. Perhaps the position cannot be refuted, he allows, but those who value *validity* in arguments will reject it.

In Chapter 5 Musgrave confronts van Fraassen's 'constructive empiricism'. For him good scientific theories are good only insofar as they are empirically adequate, only insofar as they 'save the phenomena'. This position, Musgrave points out, is relatively difficult for realists to argue against because so much of their position, in particular the meaningfulness of the realists' hypotheses, is accepted. But Musgrave is able to identify some real problems of relative detail for van Fraassen's view, discussion of which must be omitted here.

The first half of the book concludes with a critique of Idealism, the metaphysically polar opposite of scientific realism. Musgrave accepts (rightly I think) David Stove's view that the idealism of Berkeley and others springs largely from an invalid deduction from a tautology or a family of tautologies, for instance 'I can only perceive what I perceive, so the physical world cannot exist beyond my perception'. (Stove called this sort of argument 'the gem', but he was not intending to be kind.) It is interesting to observe, I think, that there are other 'powerful' tautologies that do the same sort of damage. Consider, for instance the rotten arguments 'whatever will be, will be, so everything is determined' and 'whatever I desire is my desire, so every desire of mine is a selfish one'. But as Musgrave insists, one can't derive any conclusion of interest from a tautology.

The second half of the book is heavier going than the first half. It examines deep issues that come up for a broadly Popperian philosophy of science, indeed for any philosophy of science. A central thread is the defence of what Musgrave calls 'Deductivism'. (I had thought that this term was introduced by David Stove, who himself rejected the doctrine, but Musgrave makes no acknowledgement.) Deductivism is the view that the only good arguments are *valid* arguments. This involves . . .