

Supervenience, Materialism, and Skepticism: Critiquing Some Key Epistemological Underpinnings of Chalmers' Dualistic Philosophy of Mind

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David Chalmers has recently received much attention for arguing against a materialistic theory of mind and for a type of property dualism (see Chalmers 1996). So what exactly is a materialistic theory? According to Chalmers, materialistic theories require, roughly speaking, that all facts, including macrolevel facts, either are microphysical facts or supervene logically on microphysical facts (Chalmers 1996, 41, 128). For instance, biological facts logically supervene on basic physical facts. But how does Chalmers understand supervenience? After explaining the basic idea and discussing some technical problems, he provides the following gloss: „[supervenience is] a thesis about our world (or more generally, about particular worlds)... According to ... [this] definition, B-properties are logically supervenient on A-properties if the B-properties in our world are logically determined by the A-properties in the following sense: in any possible world with the same A-facts, the same B-facts will hold“ (Chalmers 1996, 39).¹ Utilizing many creative examples invoking objects such as zombies, he contends that mental phenomena, and conscious experiences in particular, do not supervene on material states of affairs. Consciousness, then, is unlike just about every other natural phenomenon, which does supervene on materialistic states of affairs. Hence consciousness is special, different, and, in accord with his dualism, separate.

In this paper, I shall not explicitly examine the examples and arguments that Chalmers proffers to show that consciousness does not supervene on physical facts; that battle has already been joined by a host of other philosophers. What I want to do instead is to challenge his general claim that (just about) every other macrolevel property does supervene on microphysical facts² by attacking one of his key supports for this claim and showing how it contains epistemological presuppositions that actually undermine his general supervenience claim. After setting up the theoretical machinery necessary for him to argue that consciousness does not supervene on physical facts, Chalmers feels the need to address the „frequent response“ that „... conscious experience is not alone here, and that all sorts of properties fail to supervene logically on the physical. It is suggested that such diverse properties as tablehood, life, and economic prosperity have no logical relationship to facts about atoms, electromagnetic fields, and so on. Surely those high-level facts could not be logically entailed by microphysical facts“ (Chalmers 1996, 71)? He replies that „it is not hard to see“ (Chalmers 1996, 71) that this line of reasoning fails and thus he concludes that „[c]onscious experience is almost unique in its failure to supervene logically. The relationship between consciousness and the physical facts is different in kind from the standard relationship between high-level and low-level facts“ (Chalmers 1996, 71). Chalmers offers three different types of arguments to support his thesis,

which derive from considerations of conceivability, epistemology, and analyzability.

Let us look briefly at the core ideas behind these arguments. The essence of Chalmers' first argument is encapsulated in the following sentence: „A world physically identical to ours, but in which ... [macro] facts differ, is inconceivable“ (Chalmers 1996, 73). Epistemologically he contends that „... someone in possession of all the physical facts could in principle come to know all the high level facts ... “ (Chalmers 1996, 76). On the flip side, if the macro facts of the world were not logically supervenient then we would have a „special skeptical problem“ (Chalmers 1996, 74). Finally, he argues that „... most high-level concepts ... are generally analyzable to the extent that their intensions can be seen to specify functional or structural properties“ (Chalmers 1996, 81). Others have attacked Chalmers' case that high-level facts logically supervene on physical facts. Alex Byrne (1999) for example has not only specifically attacked Chalmers' conceivability argument and his argument that knowledge of all microphysical facts could lead one to knowledge of all macro facts, but also maintained that analyzability considerations fail to establish the supervenience claim (although this latter argument does not specifically target Chalmers, it clearly challenges his own appeals to analyzability). While Chalmers has disputed some of Byrne's specific attacks, he also finds Byrne's discussion deficient because it „... passes over the role of epistemological considerations regarding the elimination of skeptical scenarios“ (Chalmers and Jackson 2001, 334, note 16). Because no one has to the best of my knowledge discussed this argument that Chalmers suggests is important for his overall strategy, and because this argument actually undermines Chalmers' strategy, it is important to examine it closely.

In short, Chalmers endeavors to push those who deny his thesis into a dark skeptical corner:

... if there were a possible world physically identical to ours but biologically distinct, then this would raise radical epistemological problems. How would we know that we were not in that world rather than in this one? How would we know that the biological facts in our world are as they are? To see this, note that if I were in the alternative world, it would certainly look the same as this one. It instantiates the same distribution of particles found in the plants and animals in this world; indistinguishable patterns of photons are reflected from those entities; no difference would be revealed under even the closest examination. It follows that all the external evidence we possess fails to distinguish the possibilities. Insofar as the biological facts about our world are not logically supervenient, there is no way we can know those facts on the basis of external evidence.

In actuality, however, there is no deep epistemological problem about biology. We come to know biological facts about our world on the basis of external evidence all the time, and there is no special skeptical problem that arises. It follows that biological facts are logically

¹. Actually Chalmers gives several different definitions of supervenience, all of which he considers to be roughly equivalent (Chalmers 1996, 71).

². Chalmers entitles one sub chapter (2.5) „Almost Everything is Logically Supervenient on the Physical“.

supervenient on the physical. ... There is no special skeptical problem about knowing these facts on the basis of external evidence, so they must be logically supervenient on the physical (Chalmers 1996, 73-74).

This argument is not entirely perspicuous. But presumably we can state its skeletal structure along the following lines:

- (1) If the macrolevel does not supervene on the microphysical, then we would have no perceptual knowledge of macrolevel facts.
- (2) We do have perceptual knowledge of macrolevel facts.

He concludes (by modus tollens)

- (3) The macrolevel does supervene on the microphysical.

The implication of this argument is that our general perceptual knowledge and our more specific knowledge of the sciences (e.g., biology) rests upon the truth of the logical supervenience thesis.

Let us begin our examination of this argument by asking, What justification does Chalmers give for (1)? Recall his words: "... if I were in the alternative world, it would certainly look the same as this one. ... It follows that all the external evidence we possess fails to distinguish the possibilities. Insofar as the biological facts about our world are not logically supervenient, there is no way we can know those facts on the basis of external evidence" (Chalmers 1996, 74). Chalmers' case here is unconvincing. Imagine a world that is physically identical to ours yet distinct in the biological realm at only one point; that is, suppose that a biological fact failed to obtain despite an "appropriate" microphysical base for some isolated bacterium, say, at the bottom of a canal in Bruges, Belgium in 1800. Even one such failure would be enough to show that there is no supervenience because supervenience is an all or nothing affair, like deductive entailments. Nevertheless, suppose that there is a law of nature that 99.999999... % of the time the biological fact is "fixed"/"determined" by the physical basis. Surely there would be biological knowledge in such a world even though, strictly speaking, biological facts did not supervene on microphysical facts. One can know, via perception for instance, the biological fact that a lady bug crawling on one's plant is alive. So (1) is false.

Moreover, even if Chalmers could respond to this argument, (1) is still not out of the woods. For by contraposition, (1) entails

- (1*) If we have knowledge of macrolevel facts (e.g., biological facts), then these facts supervene on the basic microphysical facts.

Consider, though, a possible world very similar to the movie *Ghostbusters*. In one scene a giant doughboy is stalking the streets of a large city in view of everyone. If I understand the movie correctly, then this giant doughboy is a form of life constituted by ectoplasm,³ which is not a natural substance even on Chalmers' account.⁴ But surely people seeing this giant ectoplasmic entity prowling the streets of their city know that this living being exists and is potentially dangerous just as they would know by perception if a giant, physically constituted, dinosaur-like reptile

were stalking their streets. And knowledge of this high-level fact is obtainable despite the lack of supervenience. Thus (1*) is false, as is (1) itself.

Now some might protest that such a world is not possible. After all, just because something appears on a Hollywood screen, it does not mean that it is true or even possibly true. But this response is not open to Chalmers because he allows that it is logically possible that angels and other supernatural entities exist (Chalmers 1996, 39). Moreover, if such entities exist in a world, then presumably they exit in a physical location. And if an entity could have a physical location, then it seems conceivable that it could exert causal influence on the world and thus be detected or seen. It seems safe to say that (1) is in deep trouble and Chalmers' argument from epistemology at the very least needs major repairs or elaborations.

Finally, and most importantly, Chalmers' attempts to "back up" his points about scepticism seem to backfire and offer us a backdoor way to show how his general supervenience thesis fails by his own standards. Chalmers claims that "... in areas where there are epistemological problems, there is an accompanying failure of logical supervenience, and that conversely, in areas where logical supervenience fails there are accompanying epistemological problems" (Chalmers 1996, 74). Chalmers claims that "two problems exhaust the epistemological problems that arise from failure of logical supervenience on the physical" (Chalmers 1996, 75): causation and other minds. With regard to the latter he claims that "... the mere prima facie existence of the problem is sufficient to defeat an epistemological argument, parallel to those above, for the logical supervenience of consciousness. By contrast, there is not even a prima facie problem of other biologies, or other economies" (Chalmers 1996, 74). In short, according to Chalmers there is no prima facie epistemological problem with coming to know most high-level facts, so there must be logical supervenience. Chalmers gives no definition of a prima facie epistemological problem; but if other minds and causation present prima facie problems, then surely the external world does as well. And at least some epistemological worries about biology, say, are just an instance of a more general worry about our perceptual knowledge of the external world. So if Chalmers sticks to his guns and maintains that "... in areas where there are epistemological problems, there is an accompanying failure of logical supervenience" (Chalmers 1996, 74), then the epistemological problem of the external world shows (pace Chalmers) a failure of supervenience.

Chalmers overlooks this problem because he mischaracterizes the essential nature of the problem of the external world. He says that these worries are in some sense prior to the problems of causation and other minds "... because they concern the existence of physical facts themselves... It is compatible with out experiential experience that the world we think we are seeing does not exist; perhaps we are hallucinating, or we are brains in vats" (Chalmers 1996, 75). He thus thinks that he can do an end run around this problem by giving himself "the physical world for free... thereby assuming that the external world exists" (Chalmers 1996, 75, 76). But the problem of the external world is not necessarily connected to the possibility that the external world does not exist and thus it cannot be avoided simply by assuming that the external world exists. Brain in vat scenarios (à la *The Matrix*) for example do not question the existence of an external physical world, but our access to the true facts about it. Even the way that Chalmers attempts to dismiss any deviation from his general supervenience claims tacitly underscores this point. For recall that in considering a

³ And even if the movie is silent about the constitution of this entity or specifies some other constituting substance, it is clear that this is a supernatural being by anyone's definition.

⁴ He lists "angels, ectoplasm, and ghosts" as examples of "nonphysical stuff not present in our own world" (Chalmers 1996, 39).

world without his type of logical supervenience, Chalmers asks, „How would we know that we were not in that world rather than in this one“ (Chalmers 1996, 73)? If answering this question is supposed to be a problem for those who would deny his supervenience claims, then it provides a problem for Chalmers as well. For, according to Chalmers' own hypothesis, a world with logical supervenience will appear the same to a cognizer as the world lacking logical supervenience. As he puts it: „... if I were in the alternative world [that lacks logical supervenience], it would certainly look the same as this one“ (Chalmers 1996, 73; Chalmers' emphasis). So how does Chalmers know that he is in the world with logical supervenience? Saying „I clearly have biological knowledge, so there must be logical supervenience“ simply begs the question and fails to address the prima facie problem as even he sets it up. Given that (i) Chalmers claims that even prima facie epistemological problems reveal a lack of logical supervenience, (ii) Chalmers admits that there is at least a prima facie epistemological problem concerning the external world, and (iii) Chalmers's strategy to avoid this problem is based on a misdiagnosis of the true nature of the sceptical threat, we should conclude that Chalmers own epistemological principles lead us to reject his principle of logical supervenience.

Literature

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