

***Metaphysical Emergence*. BY JESSICA M. WILSON. (Oxford: Oxford University Press, 2021. Pp. ix + 320).**

In this much-anticipated book, Jessica Wilson shows that there is

prima facie support for thinking that broadly natural entities are *cotemporally materially dependent* on micro-configurations of fundamental physical entities, yet are also *ontologically and causally autonomous* with respect to these underlying micro-configurations. And that is just to say that, on the face of it, there is metaphysical emergence.” (pp. 6-7, emphases in the original).

By “co-temporal material dependence of broadly natural entities on micro-configurations of fundamental physical entities”, Wilson refers to the idea that macro-level objects and their properties exist synchronously with arrangements of micro-level physical objects and their properties, and the former are in some sense dependent on, or made up of the latter. These macro-level entities are “ontologically and causally autonomous” from micro-level physical entities because they are not identical with them, and more importantly, they have different causal profiles relative to them. It is hard to disagree with Wilson that there is emergence precisely in this sense. Those who are interested in emergence will thus find much to agree with in this book. Any disagreement will likely be on how this general understanding of emergence is spelled out in detail, and how Wilson applies her detailed analysis to a very wide range of problems. In what follows, I will provide a brief synopsis of Wilson’s book alongside a few critical observations.

Ch. 1 makes an intuitive and compelling case for the existence of emergence as explained above: many entities depend on physical entities, yet they are autonomous with respect to them. This chapter also clarifies many of the operative notions, such as “the physical” (pp. 22-24), “levels” (pp. 24-30), “the fundamental” (pp. 30-32), and “causal powers” (pp. 32-33). There is much to say on Wilson’s treatment of each of these notions, but due to lack of space, I will be very selective.

On the notion of “the physical”, Wilson appeals to a “No Fundamental Mentality” constraint according to which “the compositionally basic physical entities ... are not fundamentally mental” (p. 23). Although I find this approach plausible, these pages made me wonder what the proponents of Russellian monism would say in response to Wilson. According to the panpsychist version of Russellian monism, the fundamental physical properties that ground physical causal powers are phenomenal properties, suggesting that the physical can be fundamentally mental. It is likely that an exchange between Wilson and those who find this panpsychist view plausible will be an interesting one.

On “causal powers”, Wilson adopts a metaphysically neutral approach in not committing to any particular theory of causation or causal powers. Accordingly, talk of causal powers of a feature (e.g., a property) is simply “shorthand for talk of what causal contributions possession of a given feature makes ... to an entity’s bringing about an effect” (p. 32). Suppose we have an emergent feature of a macro-level entity. Call this feature S. Given that S is an emergent feature, it depends on a physical feature, say P. The causal powers that are associated with S may stand in various relations to the causal powers that are associated with P. Two of these various relations are crucial for understanding Wilson’s “Two Schemas for Metaphysical Emergence”, which is the main topic of Ch. 2 (and is central to the rest of the book).

First, the causal powers of S may be a proper subset of the causal powers of P, in which case S is a “Weakly metaphysically emergent” feature (p. 72). Weak emergence, according to Wilson, is hospitable to a non-reductive physicalist position, and Wilson convincingly argues that virtually all notable non-reductive physicalist positions conform to this “proper subset of powers condition” (pp. 59-67). This proper subset condition ensures that Weakly emergent features are “nothing over and above” the physical features they depend on without being reducible to them. Reduction is ruled out because the proper subset relation ensures that causal profiles of these features are not identical. If Wilson is right (and I think she is), this means that non-reductive physicalism is not vulnerable to the objection that higher-level features are causally excluded by their physical realizers. According to Wilson’s response to this objection, Weakly emergent features don’t causally overdetermine their effects because their causal powers don’t go beyond the causal powers of the physical properties they depend on.

Second, the causal powers of S may go beyond those of P, in which case S is a “Strongly metaphysically emergent” feature (p. 53). Strong emergence, according to Wilson, is incompatible with physicalism. In fact, Wilson equates Strong emergence with physical unacceptability (p. 54). This also means that emergentism of a Strong variety is not vulnerable to a similar objection about higher-level causation. Such an objection typically assumes that the physical domain is causally closed. If it is an empirical fact that the physical domain is causally closed, ruling out any strictly non-physical causal contribution, then, as a matter of empirical fact, there will be no Strong emergence. But it is not a trivial matter to show that the physical domain is in fact causally closed. So, we have to take the empirical possibility of Strong emergence seriously, which is precisely what the rest of the book does.

The aforementioned two chapters partially draw upon Wilson’s previous work on emergence. Wilson’s previous work has been extensive and influential, and it has accordingly received many objections over the years. Ch. 3 and Ch. 4 offer a very complete discussion of these objections, and provide detailed responses to each of them. In these chapters, philosophers who have engaged with Wilson’s previous work will likely find their qualms addressed---perhaps persuasively, perhaps not.

The next two chapters cover the topics of emergence in complex systems (Ch. 5) and ordinary objects (Ch. 6). The latter, in particular, contains very interesting new material on what it is for an *object* (rather than a property) to be Weakly or Strongly emergent, and whether ordinary objects (like rocks, tables, planets) are Weakly or Strongly emergent. But the chapters that I found most interesting and are the next two, thus I will focus on these in the rest of this review.

Ch. 7 deals with the notorious problem of consciousness: how can we explain what it is like for a subject to have a conscious experience? This topic has traditionally been the battleground for physicalists and anti-physicalists, where a much-echoed opinion is that physicalists can’t explain consciousness. The question that Wilson tackles is whether consciousness is Strongly emergent. She argues that it is not. Her argument goes as follows. Two prominent arguments against physicalism about consciousness are the knowledge argument (pp. 217-225) and the conceivability argument (pp. 226-241). Wilson argues that both of these arguments fail for reasons I will not have the space to go into here, though I highly recommend a close reading of these pages, in particular Wilson’s original take on the

relationship between abduction and conceivability (pp. 231-241). So, to the best of our knowledge, consciousness is not Strongly emergent. My only concern with these sections is that most of it had little to do with how Wilson characterises Strong emergence earlier in the book. To be sure, for Wilson, physical unacceptability is equated with Strong emergence. But given that Strong emergence characteristically involves novelty of causal powers, one is left wondering how the knowledge and conceivability arguments relate to the question of novelty of causal powers.

Ch. 8 deals with the problem of free will, and arguably, it is the most ambitious and controversial chapter of the book. For Wilson, our best candidate for Strong emergence is free will. Wilson makes an intuitive case for libertarianism about free will: the kind of free will that is incompatible with determinism. Appealing to analogies between the debate on higher-level causation in the special sciences and the debate on the compatibility of free will and determinism, she argues that libertarianism is analogous to, and in fact supports, Strong emergence. I think we should be open to libertarianism if a good argument can be made for it. My only concern in this chapter was whether Wilson's argument proves too much, so to speak. Wilson takes libertarian free will to entail that "our choices are at least sometimes nomologically transcendentally free" (p. 276). Now, if libertarian free will entails that our choices transcend the nomological net, it seems to me that libertarian free will supports something more radical than Strong emergence. After all, Strong emergence is compatible with Strongly emergent features being law-governed; but the talk of "transcending nomological the net" is very much not.

Ch. 9 concludes the book with brief remarks and directions for future research.

All in all, *Metaphysical Emergence* is a very complete treatment of pretty much everything that has to do with emergence. Wilson exhibits exemplary scholarship in engaging with a very large corpus of literature. We have a lot to learn from Wilson, and a close reading of this book will no doubt be rewarding to anyone working not only in metaphysics of emergence, but also in metaphysics more generally.<sup>1</sup>

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