International Theory (2022), **14** (1), 183–192
doi:10.1017/S1752971921000087

International Theory

BOOK SYMPOSIUM

Empire and insurgency: the politics of truth in Alexander Wendt's *Quantum Mind and Social Science: Unifying Physical and Social Ontology*[1]

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(Received 4 June 2020; revised 15 October 2020; accepted 4 May 2021)

Abstract

I argue that the dangers inherent in Wendt's project are not that it radically undermines the project of social science as it currently exists, in positivist or interpretivist forms, but rather that it reinforces the will to knowledge that has powered the development of the social and human sciences since the late 19th century. The ultimate significance of Wendt's argument is not ontological or epistemic but *political*.

Keywords: International relations; methodology; quantum; social science; theory

> – the 'as if' approach to quantum social science is akin to guerrilla warfare, attacking unexplained anomalies in the orthodox lines, using local successes like quantum decision theory to build popular support, and training cadres in the new methodological techniques. But the politics of ontology being what they are, if Mao was right then at some point guerrilla warfare must give way to conventional war – to a more realist view of quantum social science that would be a frontal assault on the classical mainstream.[2]

The aim of the argument of *Quantum Mind and Social Science* is to disrupt an allegedly predominant social scientific worldview based upon Newtonian assumptions about matter, energy, space, time, and causation. Yet, in spite, or perhaps because, of its revolutionary intentions, there is something deeply old-fashioned and nostalgic about this book. This is evident in the way in which it harkens back to rationalist and idealist forerunners in its pitching of a heroic quantum social scientific insurgency against the powers of classical empire, and, most obviously, in its anxiety to find a *legitimate* ground for all claims to knowledge about the world, by offering us a metanarrative that is quite literally a theory of everything. In what follows I will deal briefly with the substantive conclusions of Wendt's

[1]Wendt 2015.

[2]Wendt 2015, 289.

argument in relation to quantum mind and social ontology and then, as it were, work backwards to critique the rationale for the project and the ways in which Wendt characterizes the contemporary world of social science. Other contributors to this forum deal more deeply with the substantive claims that Wendt makes, and I will indicate areas of agreement and disagreement with them. In broad terms, my philosophical and social scientific viewpoint links my arguments particularly to those of Kratochwil and Prozorov.[3] However, the main thrust of my comments will be that the dangers inherent in Wendt's project are not that it radically undermines the project of social science as it currently exists, in positivist or interpretivist forms, but rather that it reinforces the will to knowledge that has powered the development of the social and human sciences since the late 19th century. The ultimate significance of Wendt's argument is not ontological or epistemic but *political*. And the stakes of the politics of ontology are not just the territory of U.S. Political Science faculties and the kinds of mathematical modelling that they teach but, much more importantly, truth as the pathway to exclusive dominion.

Put somewhat crudely, Wendt's argument proceeds as follows. Contemporary social science either explicitly or implicitly presumes a world constrained by the laws of classical physics. At the same time, contemporary social science either explicitly or implicitly invokes the role of consciousness (intentionality) in most of its theories and explanations. Unfortunately, from the point of view of classical physics consciousness can only be understood as an anomaly that has yet to be satisfactorily explained. So, contemporary social science is essentially inhabiting or believing in two incompatible, apparently contradictory, worlds simultaneously. Wendt's response to this fundamental muddle is to argue that it can be resolved by turning to quantum rather than classical physics, which can work as an account of the material and social worlds simultaneously, without reductionism (reducing mind to matter or matter to mind) or producing an essentially binary account of the nature of phenomena. Wendt is careful to specify that his position can be interpreted analogically as an 'as if' epistemic framework, in which the justification for approaching explanation from the quantum starting point is instrumental rather than realist. His own view, however, as suggested by the quotation above, is that it is not just that quantum assumptions *work* better than classical ones to explain social phenomena, but that they literally embody the nature of human existence, or rather that human existence is the literal embodiment of a quantum world.

The argument of the book builds up in stages. First, Wendt explains quantum theory and the theoretical debates surrounding it and elaborates his preferred way of squaring the circle between 'classical appearance' and 'quantum reality' (a somewhat question-begging formulation) in quantum brain theory and panpsychism.[4] In the second part, Wendt moves from the realm of physics to that of 'life' and develops what he calls a 'quantum vitalism', in which the proto-subjectivity intrinsic to all matter (panpsychism) is understood as amplified in the brain so that human consciousness can be explained (described) as the ongoing production and collapse of quantum coherence: 'With the wave function as Cognition and its collapse as Experience, Will would then be the force that brings collapse about'.[5] Here, Wendt's panpsychist account of consciousness

[3]Kratochwil 2022; Prozorov 2022. [4]Wendt 2015, 71. [5]Wendt 2015, 121.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

invokes Spinoza's 'conatus' as well as Leibniz's monadology and Schopenhauerian 'will', locating itself firmly in holistic, rationalist, and idealist philosophical predecessors. The third part of the book builds on the previous stages to elaborate a 'quantum model of man' and begins to engage more directly on the territory of social science in relation to issues of rationality, agency, language, and social ontology.

It is impossible to deal adequately with all aspects of Wendt's argument here. This is particularly so when it comes to his summations of state of the art debates in the philosophies of physics and mind and a variety of other fields where I simply do not have the expertise to comment. As Chernoff has shown, the structure of the argument is complex and relies on a variety of moves, all of which can be open to question.[6] In this respect, one disarming aspect of the book is that Wendt frequently points out that he is making a variety of jumps that many others working within the field in question would not deem to be justified. The most daring of all the jumps, as noted in Kydd's sceptical analysis of Wendt's project, is the claim that the mismatch between quantum (micro) and classical (macro) that applies to what Wendt counts as 'non-living' matter does not apply to living matter.[7] This is a speculative claim, although one that he hopes will be some day open to experimental demonstration. Another point where the argument seems to stretch a long way beyond the resources provided by quantum theory is in the interpretation of quantum vitalism in terms of Cognition, Experience, and Will – all of them concepts heavily freighted with what you might call pre-quantum theoretical and metaphysical baggage, and one reason why Kydd identifies Wendt as trespassing onto the grounds of theology.[8]

However, whatever the problems may be with how he gets there, many of Wendt's conclusions about the broad assumptions of quantum social science fit very well with the starting point of what he terms 'interpretivist' and 'phenomenological' traditions of social inquiry. Specifically, these are claims about the internal, and transformative, relation between observer and observed, the significance of subjectivity and meaning for understanding human action and institutions, the inseparability of individual or event from context, and the critique of efficient causation in the social world. As with Kratochwil, who also approves of Wendt's holist approach to questions of meaning, my own allegiances are to the more phenomenological, Wittgensteinian inspired approaches to social science.[9] I am, therefore, sympathetic to Wendt's critique of social scientific positivism. His trenchant characterization of the machine or zombie-like character that the human individual takes on in positivist theorizing is entertaining, although perhaps somewhat 'straw man' in character. After all, this is a very well established critique and all of the implications Wendt draws for social theory are familiar and well-explored positions, with a long history of philosophical and social scientific debate behind them. As Wendt himself admits, his concluding position on the structure/agency question is close to Giddens's structuration theory. So, the question has to be, what is the added value here, in particular for someone who does not currently practice positivist or empiricist social science?

The added value question is clearly one that haunts Wendt, since he spells it out in his introductory remarks and returns to it repeatedly in his argument, including

[6]Chernoff 2022. [7]Wendt 2015, 124; Kydd 2022. [8]Kydd 2022. [9]Kratochwil 2022.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

at the end of the book when he applies his quantum thinking most clearly to social science in his account of social ontology as emergent, holistic, and flat. Let us go on to take a closer look at Wendt's claims about the specific contribution made by his argument. Six points are listed in the introductory chapter. In summary, Wendt claims his argument:

(1) Gives human experience a home in the universe by unifying physical and social ontology;
(2) Forces a re-thinking of existing theoretical practices, for example in relation to intentional explanations in social science;
(3) Explains longstanding anomalies, for example in classical probability theory;
(4) Has the potential to reveal new social phenomena, for example, structural power as non-local causation;
(5) Resolves controversy between positivists and interpretivists;
(6) Implies a communitarian/relational starting point for normative theory.[10]

A further three points are listed in the chapter on social ontology when Wendt is clarifying the value added by quantum social science to something like Giddens's structuration theory. Here we are told that the quantum approach:

(a) Provides a physical basis for a view of structure/agency as mutually constitutive, which is untenable from a classical point of view;
(b) Opens up the use of quantum formalism in new areas;
(c) Resolves issue of 'downward' causation.[11]

My response to these claims falls into three different categories, which reflect my intellectual and geographical location as an IR scholar: a 'so what?' category in which I raise the question as to why this matters (1, 3, 5, and a); a 'sympathetic but' category, in which I am in sympathy with claims made about the social world, but unclear about how getting to them via the quantum approach adds value, or have issues with the way in which Wendt cashes out the quantum approach (4 and c); and a 'what is the prescriptive agenda?' category, where I am concerned about what this new formulation of social science is *for* (2, 6, and b). I will elaborate on each of these lines of response in turn.

So what? What reasons do I have for caring about a unification of physical and social ontology or providing a physical basis for views about meaning and subjectivity that are untenable in the terms of classical physics? Wendt argues that I should care, because even if I approach the social world phenomenologically I am committed to the compatibility of that world with the laws of physics. Well, actually I am not sure that I am – even if I knew what the laws of physics were, which I do not. As Chernoff points out, Wendt's argument relies a great deal on the initial claim that all social scientists are actively invested (whether consciously or not) in an ontology (a Newtonian physical universe) that is actively contradicted by the concepts they deploy in their practice (notably intentionality).[12] But I wonder whether social science has actually ever been dependent on physical as opposed to metaphysical,

[10]Wendt 2015, 34–35. [11]Wendt 2015, 260. [12]Chernoff 2022.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

epistemological, phenomenological, and practical assumptions when it comes to basic claims about matter and meaning. These assumptions may include accepting natural science as a model for knowledge production, but, as Wendt himself points out, social scientists of all persuasions use concepts that are hard to cash out in Newtonian terms. Nevertheless, I am sure it is the case that some social scientists would embrace either classical materialism or some form of dualism via compatibilism when confronted by the mind/body problem. But, the traditions of social scientific thinking from which I come are much more likely to be interested in the kinds of resources found in Spinoza or Hegel than in Descartes or Kant, and because of this (a) to reject the formulation of the 'problem' as a problem in the first place and (b) to resist binary or foundationalist thinking. Wendt's argument is clearly foundationalist, and his tendency, even as he embraces the 'both/and' logic of quantum theory, is always actually to revert to binary thinking – one is either classical or quantum, but does this actually exhaust the possibilities? In this respect, I agree with Kratochwil and Prozorov that it is more productive to think in terms of a multiplicity of worlds (ontologies and logics), at the level of social scientific practice as well as in terms of what social scientists are studying, rather than in terms of a singular answer to the question of what the 'is' is.[13] And, yes, this does mean that I cannot prove that the devil doesn't exist whereas the university does – but then I am not in the business of proof or of Newtonian causal accounts of how either the devil or the university makes me act one way or another. Possibly, it is the devil deterring me from taking proper science seriously even as I write.

Why bother about explaining anomalies in the classical worldview or resolving controversies between positivists and interpretivists? When it comes to anomalies, the quantum paradigm yields anomalies just as much as the classical. Why do quantum processes on Wendt's account only scale up in relation to the brain and not in other contexts? How is it that we can sustain an inside/outside distinction in quantum processes simultaneously with a commitment to entanglement and superposition? I am also puzzled by how the relation and distinction between living and dead is understood, since here we seem to move between classical and quantum worlds, with efficient causation interacting with quantum processes. As for the debate between positivists and interpretivists, it is set up in terms in which it cannot be resolved except by a move to reductionism or dualism. Both reductionism and dualism pose problems for comprehension, but then so does a 'neutral monism' that posits a single reality underlying a duality in its manifestations. The co-existence of different forms of social scientific practice is only a problem if we make it one, which clearly we have and do in our various struggles for professional standing and resources. But, there is no way of resolving those struggles by reference to a new foundation, since there is no theoretical position that is without puzzles and remainders, and these can always be deployed to devalue the work of others. The embrace of pluralism in social science is more likely to be effective if it is just that, an embrace of pluralism.

So, there are a variety of ways in which I am unpersuaded that I should care about issues that for Wendt are extremely important for the social theorist to

[13]Kratochwil 2022; Prozorov 2022.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

address. This undoubtedly testifies to my own philosophical inadequacies rather than Wendt's. Also perhaps to the very different traditions of thinking about social science prevalent in the UK and European contexts compared to the USA. Where I find that I *do* care about Wendt's claims, this is either because these ideas are staple to my existing understanding of social scientific inquiry, or because he is linking his argument to other theoretical developments that I find interesting. Staples of my thinking that Wendt's argument appears to support would be claims about the significance of context, social structure, and meaning for social scientific analysis. Although I do not necessarily use the same vocabulary, I am persuaded that individuals do not reason atomistically, that social structures such as gender or the state produce and constrain, as well as being produced by and constraining, the institution- and meaning-making activities of human actors. And I don't think we can get anywhere near understanding social phenomena without theorizing how language works over and beyond its use on any particular occasion. Notions of social structure or what Wendt terms (as he admits misleadingly) 'downward causation' hold no terrors for me.

> In effect, social structures are continuously popping in and out of existence with the practices through which they are instantiated.[14]

For Wendt, it makes a difference whether one is using these terms (such as social structure) heuristically to try to capture phenomena in a way that makes sense to an audience, or whether one is using them because that is the way the world is *really*. And yet, it seems to me that when Wendt actually applies the quantum approach to thinking about the nature of the state as a social structure, the results are disappointingly static. The reality of the state is pretty much reduced to the ways in which 'dominant monads', like presidents, collapse the wave function.[15] This is a peculiarly decisionistic conclusion for someone thinking holistically and contextually about the social world, especially as, by its nature, we cannot understand the internal process through which the dominant monad exerts will to command experience.

More interesting, for me, are the points at which Wendt's argument overlaps with certain strains of critical theory – for example, with Judith Butler's arguments about gender as performativity and Jane Bennett's and others' claims about the agentic capacities of non-human matter in the New Materialism.[16] Without being a committed Butlerian or New Materialist, I have found theoretical work in these genres fruitful for thinking about sex/gender and notions of agency in feminist theory. This is because they open up recognition of the imbrication of material and social dynamics and constraints in the reproduction of particular identities and institutions. I can see how Wendt's argument could lend support to such lines of thinking and research that are relatively novel and run against the grain of established understandings. However, the question is precisely what kind of support does Wendt's argument lend? He himself is somewhat dismissive of overlapping conclusions that are not derived from his premises. Concerning the vitalism of New Materialism, Wendt comments that, 'For them the theory's value is polemical

[14]Wendt 2015, 264. [15]Wendt 2015, 269. [16]Butler 1993; Bennett 2010; Wendt 2015, 143, 163.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

rather than positive'.[17] It is made repeatedly clear that the added value of Wendt's argument is to provide a proper, more 'positive' ground for conclusions that are otherwise at best 'as if' and at worst purely speculative and improperly (even scandalously) unaccounted for. So, New Materialists don't do their physics properly. But this is not their only problem; Wendt is also concerned about New Materialist arguments because he sees them as undermining the significance of consciousness and agency.

Wendt's worries about sidelining consciousness are one reason why he is somewhat cautious in his reception of Karen Barad's work, which aligns itself with some of the insights of Butler's work and which takes its starting point from a realist interpretation of Niels Bohr's 'philosophy-physics', which she terms *agential realism*.[18] Although Wendt is enthusiastic about Barad's notion of 'intra-action', he does not engage with her extensively as an alternative quantum realist.[19] Without going into detail, a comparison between what Barad does with quantum theory and what Wendt does with it is instructive. Although Barad challenges human exceptionalism in relation to the physical universe, Wendt reinforces it (see also Kydd's comments in this forum).[20] Although Barad insists that materiality is discursive and discourse is material all the way up as well as all the way down, Wendt uses quantum brain theory and panpsychism to draw a distinction between material and non-material physical processes, mapped onto a distinction between what is 'internal' and 'external' to the wave function collapse. Although for Barad measurement is precisely not observation, but the diffraction between object and apparatus in very specific and local circumstances, for Wendt measurement is presented largely in idealist and voluntarist terms.[21]

I am not in a position to judge how plausibly Barad and Wendt draw out the implications of quantum theory. This takes us back to debates in the philosophy of physics that Wendt makes clear are unresolved. But it is interesting how Wendt's drawing out of quantum theory's implications always comes back to two kinds of value or commitment: one is to the identification of truth with correspondence to the 'really real'; the other is the importance of the human subject as a conscious being with free will.[22] In Wendt's account, due to a variety of moves that he himself acknowledges are not always well supported by current evidence or theory, correspondence with the 'really real' and humans as conscious beings with free will are made compatible. But in being made compatible, the quantum turn in social science may perhaps lose something of its radical edge. Wendt's argument gives us back a world in which minds and bodies are understood separately, even if they both ultimately are products of the same-minded matter. The result is to reinstate human exceptionalism by delineating a particular realm of the social in which only individuals and their practices are 'really real', and to draw attention away from the ways in which the boundary between the natural and the social may be differentially, and indeed intra-actively, produced in different contexts.

This brings me to what I really do think matters about Wendt's argument – the question of its prescriptive implications for the practice of social science in general.

[17]Wendt 2015, 133. [18]Barad 2007. [19]Wendt 2015, 172–73. [20]Kydd 2022.
[21]Wendt 2015, 202, 269–70. [22]Chernoff 2022.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

These are important, I will suggest, not simply in themselves but in the (highly classical) assumptions about truth and power that underlie them. The prescriptions themselves are directed principally against what Wendt terms 'positivist' social science – which includes all forms of empiricism regardless of their commitment to Newtonian ontological assumptions.[23] A secondary argument, although not one that is at all developed in the text, is directed against liberal individualist moral and political theories, which Wendt clearly feels are based on the same mistaken atomistic, efficient-causation, classical worldview, as in positivism/empiricism. There is something (perhaps superficially) paradoxical about Wendt's prescriptions for positivism and liberalism. On the one hand, his philosophical message is that we need to abandon atomism and efficient causation and start analysis from the assumption of holism and relationality. On the other hand, his quantum worldview, and its 'rump individualism' in relation to humans as 'walking wave functions', gives key explanatory status to the will, which is located in a private, subjective realm, admittedly constituted in terms of plural potentialities that are shared across space and time, but in itself unable to be accessed let alone understood.[24] Even the subject's understanding of their own wave function collapse is necessarily limited because decisions are prospectively open and retrospectively constituted as determined, at least insofar as I understand Wendt's account of will as the force that brings the collapse of the wave function about.

Wendt's main example of how a quantum approach yields analytical dividends is the findings of quantum decision theory, based on quantum, as opposed to classical, probability theory. As far as I can tell, this means that the key thing to emerge from Wendt's quantum social theory is that social scientists seeking to understand human action in social contexts should do a different kind of mathematics. And here we get to what I find most worrying about Wendt's argument. What is the point of quantum decision theory? Well, to model and therefore potentially predict patterns of human behaviour better than classically based theories – including, of course, the ways in which human behaviour may elude prediction. And why is modelling or prediction a value? Well, presumably for good old-fashioned positivist reasons. That is to say that it will give us a handle on the future, maybe reveal the quantum entanglements that increase or decrease future possibilities for good or ill. Maybe help us draw the line between what we can change and what we cannot, or between different ways in which we may be able to affect human behaviour. Because otherwise, why do it? We know the social world is quantum, so we know it is unpredictable and 'voluntarist', so what's the point in modelling it? Or if in fact the unpredictability of collapsing wave functions 'washes out' a great deal of the time in social life, then why bother either, since presumably classically based approaches would give us what we want? But Wendt needs quantum decision theory, I argue, not because it either works or does not but because it relies on mathematics. It carries with it the authority of science and the exclusivity of an elite mystery in relation to which most of us have the standing Wendt ascribes to a 17th century peasant, a 'passive monad' unaware even of her membership in a particular political community and constituted as an object by it (that is to say by 'dominant monads').[25]

[23]Chernoff 2022. [24]Wendt 2015, 182–88. [25]Wendt 2015, 269.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

Prozorov criticizes Wendt for closing down the possibility of freedom as the interruption of what is by what is not. Although I am probably rather closer to Wendt on this issue, having doubts about the possibility of radical novelty in social life, nevertheless Prozorov's argument is important because it draws attention to the *political* implications of Wendt's project.[26] Wendt mentions politics only rarely in the text. Clearly, it has been pointed out to him that vitalism has been associated with dubious political ideologies in the 19th and 20th centuries. And he responds to this explicitly, although perhaps not fully taking on board how commitments to eugenics and the elimination of the unfit were never peculiar to right wing ideologies in those periods. In essence, although he is right to make the point that you cannot necessarily read off any particular politics from ontology – or indeed any particular ontology from any particular politics, although both may impose certain constraints on each other. Apart from this, however, there is only one other context in which politics raises its head in the text, and that is in the language used relating to legitimacy and war. It is through this that we can read Wendt's project as quintessentially political. One aspect of this politics is in relation to positivist social science and its dominance in the U.S. academy. This dominance is challenged on grounds of the legitimacy and superior power of the quantum approach. The source of that legitimacy and superior power is physics. Quantum social science is more legitimate because it is based on modern physics, not some old-fashioned Newtonianism that captures aspects of appearance only. Quantum social science is more powerful because it can explain phenomena better (arguably, with fewer anomalies on Wendt's account) than classical social science, and because it is what the social world is *really* like. In other words, quantum social science claims the high ground of truth on the same kind of terms that positivist social science and, previously, classical natural science, claimed the high ground of truth. It's all fundamentally about science and the privileged access that science gives us to the way the world is.

The terms of this argument makes perfect sense if both sides agree that physics and other branches of experimental, natural science are the exemplars of what knowledge should be across all contexts. In this respect, the quantum insurgency is a bid to replace one dominant monad with another. But it is misleading to understand the terrain in question here as confined to the U.S. academy. The project of social science has a very long imperial history. We know that the construction of the social realm as an object of investigation coincided with the identification of populations as biopolitical objects of government and that the delegitimation of alternative 'knowledges' outside of Western science has been, and continues to be, part and parcel of regimes of truth that dictate the destiny of capitalist modernity for individuals and communities. Wendt's quantum starting point may be much more voluntarist, subjectivist, and open in its conclusions than predominant 'scientific' approaches, but it remains committed to truth with a capital 'T', and its aims are disciplinary ones, concerned to sustain modes of distinguishing between acceptable and unacceptable 'fictions' in social theorizing. Wendt's quantum panpsychism may have some interesting points of comparison with Amerindian cosmology, but I am quite sure that the beliefs and practices embedded in that

[26]Prozorov 2022.

https://doi.org/10.1017/S1752971921000087 Published online by Cambridge University Press

cosmology would not count as 'scientific' in Wendt's terms.[27] Wendt sees the laws of the social world as complex and indeterminate, but still wants to lay down the law.

At various points in the book, Wendt makes the claim that part of his endeavour is to provide good grounds for why historical, phenomenological, and interpretivist approaches should be granted a place within social science. At the end of the book, he reiterates the point that this kind of work within a classical worldview can be dismissed as 'unscientific' (which is incidentally how all the practicing natural scientists I know dismiss all of social science anyway). The quantum revolution, we are told, will enable people like me to claim scientific status for their work. But this seems to me to miss the point of these traditions of work, which have always challenged the idea that only by being somehow analogous to, or grounded in, natural scientific assumptions can social science have any credibility or value. To reject the determining significance of physical ontology for social science is not to reject possibilities of truth and understanding, but to reject the equation of truth and understanding with correspondence to physical ontology, whether that includes material as well as non-material properties or not. Just as the replacement of one leader by another does not change the relationship between leaders and subjects, so, it seems to me, quantum social science is simply the replacement of one priestly caste by another, still driven by a will to truth designed to keep the peasants in their place. But, perhaps that is just the devil at my elbow speaking.

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[27]de Castro, 2014.

Cite this article: Hutchings, K. 2022. "Empire and insurgency: the politics of truth in Alexander Wendt's *Quantum Mind and Social Science: Unifying Physical and Social Ontology*." *International Theory* **14** (1), 183–192, doi:10.1017/S1752971921000087