

Review - Quantum Mind and Social Science

Written by Rainer Ricardo

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RAINER RICARDO, MAR 10 2020

***Quantum Mind and Social Science: Unifying Physical and Social Ontology*
By Alexander Wendt
Cambridge University Press, 2015**

Quantum Mind and Social Science: Unifying Physical and Social Ontology could be a destabilizing reading for International Relations (IR) scholars, especially for those with materialistic assumptions about what reality is and should be. In some ways, I was left with the deep impression that “Science” is first and foremost *acreative enterprise*; a matter of Art, with a capital “A”. Wendt is not reinventing the wheel. The creative nature of scientific work has been tacitly recognized by Naturalist scholars in IR, also known as Positivists, such as Kenneth Waltz (2010), who recognizes that theories are “artistic creations” (Waltz, 2010). This is why, according to Nicholas Onuf (2009), Waltz is a constructivist in his conception of what a theory is in the domain of scientific activity. The idea of creativity goes further in the work of IR post-positivist scholars such as Poststructuralists, Postmodernists and even Neo-Marxists. These scholars not only reject naturalist ontology and epistemology, but also argue, as Robert Cox did so well, that social theories “[are] always for someone and for some purpose” (Cox, 2002: 5). Convergence around creativity is the only point shared by two methodological “cultures” (Goertz and Mahoney, 2012) that, far from sharing a unified conception of science, are still founded on specific and distinctive norms, practices and procedures (Moses and Knutsen, 2012).

‘Quantum Man is physical but not wholly material, conscious, in superposed rather than well-defined states, subject to and also a source of non-local causation, free, purposeful, and very much alive [...] a subject rather than an object, and less an agent than an agency, someone always in a state of Becoming’ (Wendt, 2015: 206).

In *Quantum Mind*, Wendt escapes this paradigmatic war by adhering to a metaphysical tradition that reconciles and synthesizes the most significant assumptions of each tradition: Scientific Realism. The latter is in fact a neo-positivist approach to social reality which assumes the naturalist assumption according to which the Real World does exist independently of human observation. In other words, there is a real world out there, outside our minds. Yet, scientific realism also argues that *the* real world is very often socially conditioned, challenged by social actors and subject to reinterpretation (della Porta and Keating, 2008). Reality is also a “social construction” (Berger et Luckmann, 2014). With *Quantum Mind and Social Science*, Wendt claims the supremacy of scientific realism by establishing a synthesis between two irreconcilable ontologies: physical and social. In this review, our goal is to grasp, superficially, the implications of this book for scientific research in social sciences. I start by emphasizing the point of departure of Wendt’s analysis. I will also discuss the main themes of the book without necessarily following up its chronological structure.

Wendt starts by noticing that whatever methodological tradition is favored in scientific research, social scientists have not yet succeeded in building a satisfactory explanation of phenomena such as agents’ subjectivity (consciousness) and intentionality. According to him, this problem arises from the fact that social sciences have been approaching social reality on false ontological premises: those of classical physics. By engaging critically with “determinism”, “materialism” and “monism” and taking position on the side of “quantum physics” and “panpsychism”, Wendt’s ambition is to lay down the meta-theoretical foundations of a *Vitalist Sociology* in the realm of international relations so as to better explain and understand such phenomena, be they individual or collective. This is very significant for IR

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scholars since research is still struggling to provide satisfactory explanations about consciousness and intentionality in collective actors such as *the state*. Indeed, IR scholars have been attributing anthropomorphic properties to collective structures without identifying where those human properties are located within the state, as a reified structure. Of course, reification has been the target of much criticism, but the problem persists still in the discipline. To solve this problem, Wendt argues that IR scholars would be better served by a reformulation of the “agent-structure problem” in a quantum perspective: the *body-mind problem*. The argument thus follows this logic: because quantum properties do operate at the “macroscopic level”, the universe is thus a “big quantum” (p. 54), human beings really are “walking wave functions” (p. 3), and social structures such as the state are “holographic organisms” endowed with subjectivity (consciousness) and collective intentionality (agency) (p. 34). Here, Wendt is arguing that the physics of the mind is quantum and not classic mechanics and that social structures exist “in our minds” (p. 25). By locating social structures within the mind, Wendt is only arguing, again, that social structures are what we make of them (Wendt, 1992). Nothing new for a mainstream constructivist.

However, Wendt insists that there is a way to address subjectivity and intentionality in both individual and collective actors: the rehabilitation of a “vitalist ontology” in social sciences. He argues that this ontology would facilitate the construction of a human being model and a vision of nature that would reestablish their “agency” and their “vitality”. To achieve this, Wendt draws on “quantum mind theories” which defines the “human brain” as a “quantum system”. This approach allows Wendt to bring the principles of quantum mechanics to the macroscopic level (the brain) and to ensure the heuristic potentiality of his “quantum human being”. But, in order to have access to the realm of “subjectivity”, Wendt took the path of “panpsychism”, which is based on the idea that consciousness is inherent to the material world and goes well down to the subatomic level. In other words, “matter is pregnant with life” (p. 38). Thus, Reality exists only as “quantum potentiality”. This argument, I have to admit it, is “too elegant not to be truth” (p. 35). Still, Wendt does not say how quantum potentiality becomes quantum reality and how it shapes the quantum world we live in. However, Wendt tries to offer a solution to this problem by proposing that *social entanglement* – “entanglement” is the process by which subatomic particles become inter-connected in order to form an inseparable quantum system in space and time – occurs through “the most fundamental institution of human society” : *language* (p. 210). In a quite masterful analogy, Wendt asserts that “language is like light” (p. 223) and that, as a semantic universe, it remains the fundamental structure through which individuals perceive their thoughts, intentions, states of mind, collective memories, stories, etc. It is thus through language that humans create and materialize the “holographic structures” endowed with collective consciousness that organize and regulate social life.

In other words, we as human beings live in a “holographic model of society” in which “each of us is a pixel entangled in social structures that enable our agency” (p. 246). In this quantum world, *free will* “is the essence of agency” and “no matter how successful [structural constraints] are, there is always a vital force in human beings that fundamentally eludes causal determination” (p. 188). Still, Wendt offers no answer for variability in social actors’ agency and for the different ways they deal with structural constraints. Social structures, such as linguistic structures, shape actors’ capacities to speak and to act. Thus, agency (*free will*) manifests itself, always, in a constrained environment in which rules and norms play a fundamental and critical role in guiding actors’ perceptions and behaviors. Unleashed agency gives rise to another kind of anarchy in IR: disorder, and this idea is not consistent with the mainstream conception of anarchy within the discipline of IR. Agency is a property of both agents and structures. Agents act, but the social structures in which they are embedded always enable and constrain their actions.

In sum, the quantum model of society proposed by Wendt can be summarized as follows: 1) human subjectivity (consciousness and intentionality) is governed by the principles of quantum physics; 2) the human brain is a quantum computer that usually performs the function of a “holographic projector”; 3) human beings are essentially a “walking wave function” whose primary causal mechanism is that of free will; 4) social structures, invisible and endowed with subjectivity and intentionality are merely holographic organisms endowed with “quantum coherence”; 5) quantum coherence in social life is mostly observable when individuals act in ways that respect institutional rules and norms across time and space; 6) “human entanglement” occurs through language and shared meanings. In terms of implications, Alexander Wendt’s work, while reaching some degrees of speculation, imposes a significant challenge for both positivist and post-positivist IR scholars. Both traditions are still struggling to explain phenomena such as subjectivity at the micro and macro level of analysis. It is still unknown where consciousness and intentionality are located within the state. Yet, it is not uncommon to find those kinds of assumptions about corporate structures in the

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discipline of IR.

IR scholars must be attentive to what is going on here and also display some degree of prudence when grasping with conclusions diffused by quantum theories into the discipline of IR. Notwithstanding, the idea of “vitalism” seems very appropriated to social scientists struggling with the fact that non-traditional actors such as “the Earth” are *really moving* (Latour, 2014). At a time in which human activity seems to be at the origins of an unprecedented environmental crisis, it is becoming increasingly urgent to advance in the production of new forms of knowledge about the world around us in order to better understand the role played by human agency, both in the construction of facts and the materialization of their phenomenological existence. That said, it is clear that vitalism could become very attractive for a whole new generation of scientists in their desires of rehabilitating to *Nature* the ontological status of a “full-fledged actor”. Some of these “neo-vitalists”, such as Bruno Latour, argue that scientists have to start telling the story of an “actor” to whom modern science extirped its own agency. Something similar, but in a different perspective, has been occurring from decades in the discipline of IR. Surprisingly, IR scholars have been telling the story of the “state”, this “invisible” and “mind-dependent” social structure, in terms of consciousness and intentionality without putting too much attention to foundational assumptions. What is more, IR scholars have been projecting emotions on such corporate structures, such as “fear”, without asking where those emotions are located within the state. Yet, it is not until recently that IR scholars engage critically with this inconvenient truth. A lot of work has to be done, but the question remains: “where is the state located?”. Is it really out there, outside our minds? Is it just the product of our shared assumptions? Maybe Louis XIV was telling us another story when he said, “I am the state”.

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