

Michael Wheeler: Reconstructing the cognitive world: The next step

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Michael Wheeler is the latest in a new wave of philosophical theorists that fall within a loose coalition of anti-representationalism (or anti-Cartesianism): **D**ynamical –, **E**mbodied –, **E**xtended –, **D**istributed –, and **S**ituated –, theories of cognition (**DEEDS** an apt acronym). Against this background, cognition for Wheeler is, or should be, a more ecumenical concept. This ecumenical approach would still be amenable to making theoretical distinctions, the central one being the notion of *offline* and *online* styles of intelligence, a distinction that makes conceptual space for another closely related notion, that of propositional knowledge (knowing *that*) and tacit knowledge (knowing *how*).

Wheeler's book comprises 11 chapters and, informally, 3 sections. Beyond the introduction, chapters 2 to 4 offer a close-grained analysis of cognitive science's Cartesian inheritance; chapters 5 to 9 present Wheeler's deployment of Heideggerian ideas in the service of four central DEEDS claims (pp.11–14):

1. That online intelligence (OI) is the primary kind of intelligence;
2. That OI is causally woven within an extended brain–body–environment system;
3. That cognitive science *needs* to be more cognisant of the biological dimension;
4. That cognitive science *should* adopt a dynamical systems perspective.

Chapter 10 is dedicated to the frame problem and chapter 11 is a brief epilogue.

The Descartes that Wheeler presents is what he terms a “generic Cartesianism.” The intention here is twofold, one a primary reason, the other a derivative reason. First, Wheeler wants to see for himself exactly what Descartes said, as opposed to what has historically been attributed to him. Second, as a Heideggerian, Wheeler feels his position is further strengthened if he does not rely upon *Heidegger's* Descartes. Wheeler very bravely makes no appeal to a Heideggerian understanding of Cartesianism and therefore feels that he is not vulnerable to its idiosyncrasies

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(pp. 184–185). Wheeler, unlike many DEEDS theorists is not content to use Descartes as the philosophical whipping boy: he is of the view that an extreme mind–body dualism has been unfairly pinned on the historical Descartes. This has, perhaps inadvertently, given rise to, despite their endorsement of physicalism, covert Cartesians. They are committed to a specific notion of Cartesian representationalism: a physical rather than immaterial ontology. This is what Dennett has disparagingly termed Cartesian materialism. Wheeler sets out eight Cartesian principles that comprise Cartesian psychology. They divide into two interpretations: the *narrow* and the *broad*. The former identifies the faculty of reason as a wholly mental capacity with the upshot that there is a denial of non-intellectual psychological processes, typically sensory experiences. The latter has a place for both the intellectual and non-intellectual (non-conceptual content) psychological phenomena.

In much the same way as he approaches Descartes, Wheeler approaches Heidegger. The reasons here are somewhat more complicated. First, interpretation of Heidegger has been notoriously divergent: though there is no such thing as a “definitive” commentary on Heidegger, there are less contentious ones (Taylor Carman and Richard Polt are two commentators that spring to mind but are not at all referenced by Wheeler.) Second, Heidegger is a philosopher that has been (mis?) appropriated in areas where there is no philosophical culture. This has given rise to a caricatured Heidegger: the paradigmatic anti-realist, anti-naturalist, relativist and social constructivist pressed into service for those promoting some ideological sub-text (pp. 152, 156). This does no favors for Heidegger in particular and so-called Continental philosophy in general – more on this later. Last but by means not least, Wheeler has the influential work of Hubert Dreyfus to negotiate (pp. 166–191), again a very distinctive Heideggerian on offer.

Wheeler’s overall task is to reject the view that Heidegger’s philosophy is incompatible with or irrelevant to a science of the mind. Heideggerian smooth coping, real-time environmental interplay constitutes a form of knowledge, namely embodied knowledge-how. Embodied know-how emerges as our primary way of gaining epistemic access to the world and takes epistemic primacy over knowing-that (propositional knowledge). Whereas the Cartesian cognizer is a fully decontextualized entity, for Heidegger it would seem to be an essential fact about human cognition that it always operates within a context of activity. Wheeler concedes that Heidegger’s pure circumspective know-how is rarely operative. (I would have liked more discussion on contrasting cognitive and philosophical notions of skill-based rationality.)

The key to a generic Heideggerian response to orthodox cognitive science, Wheeler believes, lies within the conceptual picture offered by the Heideggerian philosophy–science nexus. *Being and Time* is primarily an investigation into intelligibility (Reality). The scientific mode reveals the mathematically describable causal properties of entities, properties that are the present-at-hand abstracted from everyday significance, what the “The English Heidegger,” Michael Oakshott, has termed *sub specie quantitatis*. For Wheeler there is no Heideggerian reason why phenomena that are ready-to-hand in an everyday context cannot constitute the present-at-hand subject matter of a scientific investigation (p. 157).

Wheeler is in accord with much of Dreyfus’s work but feels that Dreyfus runs the risk of over-playing his Heideggerian hand (p. 185). Wheeler suggests that for the

Heideggerian there is a tactical advantage to moving away from a Dreyfus-style *negative* assessment of empirical achievement. Rather, the Heideggerian should engage with the concrete empirical success of a Heideggerian position in cognitive science. This leaves such work vulnerable to the criticism that philosophy then loses its *sui generis* status. Wheeler seems to sidestep this by interpreting Heidegger as taking the view “that science need not wait for philosophy, not that philosophy must wait for science.” (p. 127)

Wheeler is not suggesting that a Heideggerian phenomenological approach is a panacea for the problems faced by cognitive science “but rather as a way of articulating what it is, to a large extent, an independent and already happening transition in the fundamental character of the discipline ...” (p. 124) Wheeler feels that recent cognitive science can be construed as Heideggerian, not so much an engagement with Heideggerian ideas, but as response to empirical questions faced within science itself (p. 188). These two observations suggest then that the sub-title of Wheeler’s book “The Next Step” is redundant – conceived thus we are all *already* Heideggerians! On a related issue there is a tension in Wheeler’s avowed approach in his so-called generic presentation of the two titans – Descartes and Heidegger. Wheeler’s own reading of these thinkers, ostensibly to present an unvarnished interpretation is a misnomer. If by “generic” he intends an *impressionistic* Cartesian and Heideggerian approach, then though perfectly legitimate, it is hardly any more “reliable” than Heidegger or Dreyfus.

The frame problem looms large; discussion of this issue Wheeler judiciously defers towards the end (chapter 10). Wheeler presents an ambitious three-step strategy that assimilates both Cartesian and Heideggerian insights, the critical third step being the highly speculative invocation of a dynamical open-ended “continuous reciprocal causation” or “adaptive plasticity or flexibility” of agents to negotiate new contexts. This sets up the “research question of how do action-orientated representation and continuous reciprocal causation combine to produce online intelligence?” (p. 280). Perhaps this should, as Wheeler here implies, be “The Next Step.”

If ever there were a book that meets the central aims and scope of this journal, i.e. addressing the confluence of phenomenology, empirical science, and analytic philosophy of mind, then this book fits the bill perfectly. It speaks to the health of Anglophonic philosophy, at least as practiced under the aegis of cognitive science, that Wheeler brings an analytical sensibility to ostensibly “obscure” Continental thought. This should not be taken as chauvinistic – Wheeler is merely someone trained in one “style” of philosophising and who deeply appreciates another – there is no incompatibility. Those who insist on maintaining the “continental (hermeneutic)/analytical” divide are ideological, rather than philosophical: subscribing to this fault-line is as perverse as “dividing America into Business and Kansas.”¹

I have barely scratched the surface of Wheeler’s concerns. Despite a residual doctoral denseness, he excels in making difficult notions clear without ever vulgarising them. Wheeler is a theorist to watch: there is the promise that his best is yet to come.

¹Attributed to John Searle.