

Embodied and Situated Cognition: from Phenomenology to Neuroscience and Artificial Intelligence

WHEN DOES BODILY ENGAGEMENT WITH THE WORLD BECOME COGNITIVE ENGAGEMENT WITH THE WORLD?

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We are embodied – that is a fact. But what does this fact tell us, if anything, about our cognitive and mental lives? Embodied approaches to the mind and cognition are supposed to reveal to us something profound about the embodiedness of our minds – that we ought to understand the mind as shaped by the body. However, there seems to be a bifurcation of approach in the embodied mind community. There is on the one hand the phenomenologically inspired approach of Gallagher (2005), with a detailed account of how bodily activity in the environment constrains what we perceive and of what we are consciously aware. This approach takes seriously the detailed description of embodiment with regard to cognitive and mental capacities such as perception and social cognition. Then there is the distributed/extended approach to cognition and mind of the likes of Hutchins (1995), Clark (1997, 2003) and Rowlands (1999), who begin with the assumption that cognition is embodied but then concentrate on the ways in which we interact, bodily, with the environment. They take seriously detailed descriptions of manipulations of external vehicles, such as diagrams or written sentences, with regard to mental and cognitive capacities, such as memory and belief. Distributed cognition does not give a detailed account of the way in which the body shapes cognition in these cases, rather it tends to focus on how external vehicles (artefacts, representations) shape and extend cognitive capacities.

Does this difference in approach constitute a profound difference? Alternatively, are we approaching the same phenomenon from different directions? We might answer 'yes' to the first question if we think that the mind is bounded by the body, yes we need to reconceive the mind on bodily grounds, but we do not need to similarly reconceive the mind on environmental grounds. We might answer 'yes' to the second question if we think that the manipulation of external vehicles is a pre-requisite for higher cognition and that embodied engagement is a pre-condition for these manipulative abilities.

My answer is a hearty 'yes' to the second question, I think that it is a mistake to disengage the body from its environment, it is also a mistake to ignore the contribution of external representational systems to our cognitive capacities. It is simply that the two 'wings' of embodied cognition need to be brought into closer dialogue with one another. In the rest of this paper, I aim to do just that.