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The socially extended mind

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Abstract

This paper contrasts conservative and liberal interpretations of the extended mind hypothesis. The liberal view, defended here, considers cognition to be socially extensive, in a way that goes beyond the typical examples (involving notebooks and various technologies) rehearsed in the extended mind literature, and in a way that takes cognition to involve enactive processes (e.g., social affordances), rather than functional supervenience relations. The socially extended mind is in some cases constituted not only in social interactions with others, but also in ways that involve institutional structures, norms, and practices. Some of the common objections to the extended mind are considered in relation to this liberal interpretation. Implications for critical social theory are explored.

Keywords: Extended mind; Parity principle; Institutions; Enactivism; Social affordances; Critical theory

> Thinking, or knowledge getting, is far from being the armchair thing it is often supposed to be. The reason it is not an armchair thing is that it is not an event going on exclusively within the cortex.... Hands and feet, apparatus and appliances of all kinds are as much a part of it as changes within the brain (Dewey, 1916, 13–14).

1. Introduction

The concept of the extended mind, as introduced by Clark and Chalmers (1998) was meant in part to move beyond the standard Cartesian idea that cognition is something that happens in a private mental space, "in the head." Elsewhere (Gallagher, 2011; Gallagher & Crisafi, 2009), I have pursued a liberal interpretation of the extended mind, suggesting that we consider cognitive processes as constituted in various social practices that occur within social and cultural institutions. This idea of the *socially* extended mind builds on the enactive idea of social affordances. Just as a notebook or a hand-held piece of technology may be viewed as affording a way to enhance or extend our mental possibilities, so our encounters with others, especially in the context of various institutional procedures and social practices may offer structures that support and extend our cognitive abilities.

In this paper I review the arguments that underscore this liberal interpretation and some examples that help to make the case. I also explain why an enactive rather than a functionalist approach allows for a better defense against various criticisms of the extended mind hypothesis. Finally, I briefly explore some implications of the concept of the socially extended mind for social and political thought, especially in the context of critical theory.

2. The parity principle

The *parity principle*, as defined by Clark and Chalmers (1998) is central to their concept of extended mind. It states:

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> If, as we confront some task, a part of the world functions as a process which, *were it to go on in the head*, we would have no hesitation in recognizing as part of the cognitive process, then that part of the world *is* (so we claim) part of the cognitive process. (Clark & Chalmers, 1998, p. 8)

Despite their intention of liberating cognitive processes from a strictly head-bound, brain-bound set of operations, if the standard, as stated, is whether a process could go on 'in the head', this may seem to be a relatively conservative principle that continues to measure cognition in terms of the traditional conception of the mind. On this conservative reading, a process outside of the head counts as cognitive only if in principle it could be accomplished in the head – conforming to the Cartesian concept of mental process as something that would normally happen in the head. Thus, we might think of some mental processes as happening "out there" in the world, yet still have a principled reason to limit mental processes to the kinds of things that fit a relatively standard model of the mind.

Clark (2008, p. 114), consistent with his functionalist position, rejects this interpretation, insisting that the parity principle should not be interpreted as requiring any similarity between inner and outer processes (also Wheeler, 2012). Accordingly, we should read the principle as stating a sufficient rather than a necessary condition. The worry that comes along with this more liberal interpretation is that the concept of mind gets overextended to include any process in the world (the "cognitive bloat" worry [see Rupert, 2004]). Thus, even as he allows for the liberal interpretation of the parity principle, Clark starts to tighten it up again with a set of additional criteria that need to be met by external physical processes if they are to be included as part of an individual's cognitive process. He lists three such criteria.

1. That the external resource be reliably available and typically invoked.
2. That any information thus retrieved be more-or-less automatically endorsed. It should not usually be subject to critical scrutiny (unlike the opinions of other people, for example). It should be deemed about as trustworthy as something retrieved clearly from biological memory.
3. That information contained in the resource should be easily accessible as and when required (Clark, 2008, 79).

The parity principle plus these criteria rule over Clark and Chalmers' primary and much discussed example of Otto and Inga. On the one hand Inga (in remembering the location of a museum) employs her normal biological memory and reflects "... a normal case of belief embedded in memory." Otto, on the other hand, has a poor memory and "... relies on information in the environment to help structure his life. ... For Otto, his notebook plays the role usually played by a biological memory" (Clark & Chalmers, 1998, 12–13). Accordingly, Otto's belief about the location of the museum supervenes on devices that lie "beyond the skin" when in fact Otto engages with those non-neural devices. There are numerous good examples of how we can enhance our cognitive performance with technology – smart phones, GPS, internet search engines, etc. We seemingly are able to store our memories, and activate beliefs about where things are located, using such instruments, running our cognitive processes on such extra-neural vehicles. I cannot remember where the restaurant is, but I, *plus* my technology, can.

One problem with this example is that it frames the discussion with a concept of the mind that the extended mind hypothesis is really trying to challenge. It focuses on specific kinds of mental states (belief, or belief embedded in memory, plus the desire to find the museum), explicates the three criteria that seem to apply to such mental states, and then generalizes the criteria to apply to all cognitive processes. The controlling conception of the mind that guides this analysis, then, is that the mind is *constituted* by beliefs, desires, and other propositional attitudes, and for Clark and other extended mind theorists (e.g., Clark, 2008; Rowlands, 2009), by representations and informational states as well. But neither the standard belief-desire psychology nor these criteria necessarily apply to all cognition, especially if one thinks of cognition in dynamic terms of enactive cognitive processes and activities, e.g., problem solving, interpreting, judging, rather than in terms of mental states or static contents.

Accordingly, these criteria seem not just too conservative, but wrong-headed. Each of them, for example, involves matters of degree. It seems possible that some instrument that allows me to think through a problem, and that without which I would not be able to think through the problem (see, e.g., the example of the legal system developed below), is neither as reliably available (1), nor as easily accessible (3), as my notebook. Should that automatically exclude it as part of my cognitive process if it subvenes my effective cognitive solution? Moreover, certain institutional or collective practices that support my cognitive performance may introduce greater stability than is available in a single biological system.

The second criterion, concerning automatic endorsement and a lack of critical scrutiny, is also suspect. Let E be an external manipulation or process that on the parity principle would count as a cognitive process. The second criterion introduces a further requirement on this process for it to count as an instance of cognition. Given that it generates or delivers information to the subject, that information must "be more-or-less automatically endorsed. It should not usually be subject to critical scrutiny." If it does not meet this criterion, then it's ruled out as a piece of extended cognition. Even if I *usually* engage in critical reflection (CR) – perhaps I'm a habitual skeptic – why would that disqualify E from counting as a cognitive process if, absent CR, it is a cognitive process. After all, CR is simply more cognition. Cognition (CR) plus cognition