

Socially embedded cognition

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Available online 16 March 2013

Abstract

Material facts about the arrangement of supermarkets and the design of churches, as well as rules of evidence and other social practices, play a critical role in structuring everyday human cognition. This much is hard to deny. I argue that such insights are best accommodated by a view that treats human beings as socially embedded agents that exploit the material aspects of their normatively rich environment. Further, I argue that a socially *embedded* approach to cognition is preferable to Gallagher's socially *extended* approach. © 2013 Elsevier B.V. All rights reserved.

Keywords: Extended mind; Situated cognition; Scaffolded cognition; Minimal representation; Reinforcement learning

1. Introduction

Legal institutions, research practices, and cultural phenomena often enable social cognition. Without such institutions, we would not acquire robust capacities for social engagement, and many normatively significant capacities would cease to exist all together. Almost everyone these days agrees would agree that social institutions contribute to and even shape social cognition (cf., Pettit, 1996; Rupert, 2010; Wilson, 2004). But, Shaun Gallagher wants more. He pushes beyond this consensus to argue that our engagement with social institutions *extends* as well as *transforms* social cognition. He argues that social institutions are sometimes the “expression of several minds externalized and extended into the world, instantiating in external memory an agreed-upon decision, adding to a system of rights and laws that transcend the particularities of any individual's mind” (Gallagher, 2013, 6; cf., Gallagher & Crisafi, 2009). But, even if he is right that there are socially extended cognitive systems, he has not yet shown that this is the case.¹ Even on the assumption that external representations play a critical role in social cognition, Gallagher's

has not yet made it clear why individuals and social practices should be seen as parts of an autonomous cognitive system. Moreover, he has not yet offered a clear enough account of the individual's contribution to the dynamic production of socially relevant behavior across various contexts.

2. Enabling social cognition

We use external representations as tools, and rely on them as cognitive scaffolding. But proponents of distributed cognition must say more about the multifarious and situation-specific ways in which the “elements and components in a distributed system—people, tools, forms, equipment, maps and less obvious resources—can be coordinated well enough to allow [a] system to accomplish its tasks” (Kirsh, 2006, 258). For example, external representations are stable and shareable resources that can be used to coordinate social activity. Indeed, proponents of distributed cognition have shed a great deal of light on the exchange of linguistic representations, and the exchange of representations on Twitter to coordinate highly distributed action during the Arab Spring has brought this capacity into stark relief. A growing range of research also suggests that we recalibrate *internal* memories and narratives by checking them against external resources. Put simply, the structure of our social world often

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¹ For an extended discussion of the difficulties inherent in establishing the existence of a distributed cognitive system, see Huebner (forthcoming).

cues the construction of socially significant memories and other narratives in a way that helps to situate us within a shared social space (Hutchins, 2005; Tribble, 2011; Tribble & Keene, 2011). Finally, we frequently use external representations to formulate, revise, and make our representations of the world explicit. But, the use of external representations alone does not establish that cognition extends beyond the boundaries of skin-and-skull; in many cases it merely suggests that we exploit information rich our environment as we think.

In a recent paper, however, Betsy Sparrow and her colleagues (2011) have argued that our use of the Internet functions as a type of extended memory. They show that people reflexively think about computers when they are asked difficult questions; and that they are less likely to encode information that they think will be available using a search engine or database. In a slogan, we seem to remember things that we won't have access to later on, and we seem to remember *where to look* when we expect access. As Google becomes a nearly ubiquitous presence in our lives, we may feel that we do not need to remember much at all. Sparrow and her colleagues (2011, 778) thus claim that we “are becoming symbiotic with our computer tools, growing into interconnected systems that remember less by knowing information than by knowing where the information can be found”. But no matter how rich our *use* of external resources is, such data alone cannot establish that Internet resources are becoming elements of a distributed cognitive system. The Internet is clearly an epistemic resource that we exploit in negotiating various social contingencies. We use smartphones to navigate unfamiliar cities; we quiet interpersonal disputes with Google searches; and, we scour the Web to find hip and exciting underground restaurants. But, these processes would continue without the Internet—though they would be much slower, and would have a very different character. This suggests that the Internet is a *contextual factor* that affects the operation of an already existing cognitive system.²

There are ways of employing Internet resources that modify the structure of our inferential landscape, allowing us to exploit “context-specific correlations to simplify the problem solving process” (Rupert, 2010, 180). The Internet thus seems to function as an *enabling condition* for some types of embedded cognition. It has become part of the environment in which we are situated, producing cognitive niches to which internal mechanisms have become attuned. This means that there are likely to be some cognitive processes that could not occur without exploiting the Internet. But even this fact does not justify treating the Internet as a constitutive element of a distributed memory system. To be a *constitutive element* of a cognitive system it would have to be ‘part’ of the process itself, and a cognitive process is nothing more than the set of its constitutive elements.³

So, even if the Internet is a self-organizing autonomous system, that maintains its identity over time and can be distinguished from its environment, this alone would not establish that *we* are becoming part of this system. This is where Gallagher's defense of socially extended cognition comes in. He wants to show that some social institutions are constitutive elements of cognitive processes, and that they “allow us to engage in cognitive activities that we are unable to do purely in the head, or even in many heads” (Gallagher, 2013, 7). But, what does this mean?

I agree that there are many cases where a person's capacity for social engagement would be highly degraded if she lost access to social institutions. I also agree that our ability to engage in legal and scientific reasoning is only possible because we are situated in networks of legal institutions and research practices. A person can only make a motion or be in contempt of court if she inhabits a space of legal institutions; similarly, a person can only treat something as data or replicate a result if she inhabits a research community. Such claims are familiar, and they generalize widely: it is only possible to ‘deposit a check’ because there are banking systems and economies; and, the President can only declare war because of her position in a social apparatus consisting of laws, statuses, and institutions (Mandelbaum, 1955). Such banalities strongly support the claim that cognitive properties are often socially manifested (Wilson, 2004); they even suggest that many types of social cognition are only intelligible in light of the interactions between individuals and social institutions. However, these facts do not provide unequivocal support for the hypothesis of socially extended cognition, and they are easily accommodated by a view that treats social institutions as enabling conditions for socially embedded cognition (cf., Rupert, 2010).

Gallagher's bold claims about socially extended cognition, thus, critically depend on his enactive approach to mentality. He holds that minds are not places where cognitive processing occurs—they are parts of dynamic and enactive systems. This is a promising tack, and Gallagher is right to claim that social cognition often depends on dynamic strategies for “solving problems and controlling behavior and action—in dialectical, transformative relations with the environment” (Gallagher, 2013, 7). Our engagement with social institutions tends to be active, dynamic, and engaged; “the process of decision making changes, indeed is manipulated, when one set of external factors is introduced rather than another” (Gallagher, 2013, 11). However, I contend that this appeal to dynamic engagement is also insufficient to justify claims about socially extended cognition. By focusing on dynamic patterns of engagement, Gallagher does provide a useful strategy for dislodging the seductive assumption that cog-

² For the distinction between contextual factors, enabling conditions, and constitutive elements, see De Jaegher, Di, and Gallagher (2010, 443).

³ It is also suggested that the “set of all the constitutive elements is the phenomenon itself. The presence of these elements is necessary, and therefore also enabling” (De Jaegher et al., 2010, 443). There are deep problems in trying to get these accounts of constitutive elements to mesh, though I cannot address this worry here (cf., Herschbach, 2012).

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