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Cognitive integration, enculturated cognition and the socially extended mind ☆

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Abstract

Shaun Gallagher presents an interesting case for the social extension of mind. I argue that there is one way in which Gallagher can argue for social extension, which is continuous with an enculturated model of cognition, such as cognitive integration. This way requires us to think of the mind as extended by social/cultural practices that are specifically targeted at cognitive tasks. The other way in which Gallagher argues for social extension is that social institutions – such as museums or the law – are literal constituents of our minds. This second way involves a number of problems and objections and is inconsistent with an enculturated or practice based approach. I conclude by urging Gallagher to endorse the first way.

Keywords: Extended mind; Cognitive integration; Enculturation

0. Introduction

Shaun Gallagher argues for a socially extended account of the mind (2013). He argues that social institutions extend cognitive and mental capacities. He also argues that we should avoid interpretations of extension as being committed to the idea that the mind is first in the head and then extended into the world. I have long advocated such an interpretation (Menary, 2006, 2009). That the mind is socially or culturally extended is also a core thesis of cognitive integration (Menary, 2007), especially the idea that it is extended by cognitive practices (Menary, 2006, 2007, 2010b, 2012). Therefore, I agree with Gallagher's core claims.

However, Gallagher flirts dangerously, in my view, with the idea that minds are extended by institutions such as the law, in the sense that cognition supervenes on social institutions and artefacts. "If we think that cognition supervenes on the vehicle of the notebook, it seems reasonable to say that it supervenes on the vehicle of the museum—an institution designed for just such purposes." (Gallagher & Crisafi, 2009, 49).

I do not think that social institutions can be constituents of our minds, in the sense that mental states supervene on institutions. This is because integrationists think that our cognitive capacities are extended by socio-cultural practices. The practices are patterns of activity[1] spread out across a population. So for example mathematical practices, such as the partial products algorithm, extend the basic biological capacities with which we are endowed. The practice is first learned by manipulating symbols on a page (for example) and becomes a capacity that can be enacted either by bodily manipulation of public symbols, or offline simulations of such manipulations (Menary, 2010a).

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[1] Actions performed by people.

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I fear that there is little warrant for the further claim that the institutions in which I learnt the practice (Schools) must also be (constitutive) extensions of my cognitive capacities. I am more sympathetic to the view that we construct the cognitive niches in which we develop new, culturally endowed, cognitive capacities. In so far as Gallagher argues that our minds are extended by socio-cultural practices I am in agreement with him.

The argument of this paper is for an integrationist model of cognition, this is a model that I have been developing for the past 6 years. This model explains how our minds become enculturated and how we learn to be active cognitive agents who think by manipulating their environments and interacting with one another in social groups. The integrationist model also draws upon cultural inheritance and niche construction models, which explain the evolutionary conditions under which richly structured cultural, and cognitive, niches are inherited. Ultimately, the integrationist model explains how our minds are transformed whilst learning the cognitive practices by which we carry out many of our routine cognitive and epistemic tasks.

Integrationists think that our minds are extended by the practices (real activities) of thought, which we learn in the niche (and where the niche may contain many social and cultural institutions). This claim works on both an individual and group level. Cognitive practices are nothing but patterns of activity spread out across a population. Individuals learn and acquire these practices during development and many of these practices will be collaborative in nature. In other words, cognitive practices are real activities that take place in a public forum; they can be carried out individually or in collaborative groups (where everyone is a practitioner). Cognitive practices are genuine 'components' of our mental and cognitive capacities, they are dynamic, active, processes by means of which we think and successfully complete cognitive tasks. Consequently, the integrationist model allows that practices are real cognitive/mental processes. By contrast tools, artefacts, institutions, etc. are usually enabling or background conditions for cognitive processing.[2]

In the first section I expand upon the integrationist model as an explanation of enculturation. In the second section I give two examples of cognitive practices in action and demonstrate their explanatory scope and power. In the third section I address Gallagher's Social Extention Hypothesis (SEH), highlighting points of agreement and areas where an integrationist approach can help with some of Gallagher's proposals. The final section addresses the question, raised by Gallagher, of whether social institutions, such as legal systems or museums, are constitutive of our minds.

[2] Scaffolds if you will. However, I agree that it is in principle possible for the mind to be extended by artefacts (see Menary, 2012 for the difference between artifact extension and enculturated cognition).

1. Cognitive integration, niche construction and enculturation

In Cognitive Integration (Menary, 2007) I argued for an enculturated approach to cognition: Our basic biological capacities are extended by our development in richly structured cognitive niches. The core of the argument being that our cognitive capacities endowed by evolution are not sufficient, on their own, to explain how we develop higher order cognitive capacities – such as those that require mastery over public representational systems. The capacities we acquire through our learning and training histories during the extended developmental period in human ontogeny are layered over, but continuous with, those basic evolutionary endowments. In this section I propose to show how human minds are both unique and continuous with the rest of the biological world. Human minds are unique because they are the product of developmental and neural plasticity.

In chapter 5 of Cognitive Integration I proposed the following way to think about the layering of cognitive practices over basic biological capacities to produce hybrid minds:

1. Organisms are reciprocally coupled to their environmental niches, resulting in an organism–environment system (see the plentiful examples in Turner, 2000).
2. As an organism–environment system the organism is predisposed to manipulate its environmental niche, or in some cases create it. This is an adaptation of the organism.
3. An organism's manipulations of its environment, whilst part of its phylogenetic history, can, in many cases, be fine-tuned and calibrated through learning or reinforcement as part of its ontogenetic history.
4. That these manipulations are adaptations gives them a basic kind of normativity. This normativity allows for the beginnings of an organism's sensitivity to salient environmental variables. It allows for the possibility of intentional directedness.
5. Humans are predisposed to manipulate their environment, but the fine-tuning and calibration of these manipulations in ontogeny is not part of their phylogenetic history, the role of culture in providing systems of representation and methods for their manipulation must be learnt and practised before fluent bodily manipulations of public representations becomes part of the human cognitive repertoire.
6. The phylogenetic history of Homo Sapiens illustrates how we move on a continuum from biological manipulations as adaptations in our hominin forebears to more complicated forms of tool use and imitation, through to language and the development of public representational systems. They all involve manipulations of the environment and eventually result in a culture which is a repository of knowledge, skills and representational systems that is passed onto later generations via learning and development.