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Stream B: Cultural Change and Evolutionary Theory

Title: The transformative cultural niche: the case of human spatial cognition

Abstract: The enculturated approach proposes that there is a large body of evidence indicating that human nervous systems and cognitive processes are highly dependent upon, and shaped by, cultural niches (Downey & Lende 2012; Henrich 2016; Sterelny 2003). Cultural niches are environments that have been physically and epistemically engineered by human activity (Boyd et al 2011). However, this is not a form of radical social constructivism; enculturated cognition theorists emphasise the constraints in how culture transforms and shapes certain cognitive domains – e.g. neurological constraints (Dehaene & Cohen 2007; Menary 2014) and bodily factors (Fabry 2017a, 2017b).

In this paper I supplement this account by outlining the constraints that come from cultural products themselves – with particular reference to external representational mediums and tools. I also refine the notion of transformation by providing a taxonomy of qualitative and quantitative changes to both [1] the epistemic environment; and [2] an agent's neurocognitive profile. I examine this general framework using the case of spatial cognition; examining different practices and technologies related to wayfinding and navigation.

Bio: Gillett is an adjunct lecturer and tutor in both the departments of Philosophy and Anthropology at Macquarie University. He completed a PhD in philosophy of cognitive science at Macquarie University in 2018. His thesis examines the conceptual foundations of the distributed cognition framework in cognitive science. His current research focuses on how human spatial cognition is shaped by ontogenetic and phylogenetic factors relating to the acquisition of cultural practices (i.e., enculturated). He has additional interests in the philosophy of science, especially pertaining to the nature of interdisciplinary research.