

## Cognitive science and the cultural challenge

Interdisciplinarity is highly valued these days in academia, and with good reason. Many problems require the concepts, tools and insights of multiple disciplines for their solutions. Furthermore, interdisciplinarity – done well – can help scholars break free of old paradigms and make true innovations. It is thus both unfortunate and perplexing that collaborations between psychology and anthropology are vanishingly rare. The goal of *Anthropology and the Cognitive Challenge* (Bloch 2012; hereafter, ‘ACC’) is to change this state of affairs: to get anthropologists and psychologists talking to one another; ‘to change the ground ... where the different disciplines can meet and engage in a joint, yet difficult enterprise’ (p. 192). Maurice Bloch is just the person to write this important book, given his own seminal research in cognitive anthropology and his interdisciplinary successes (e.g. Bloch *et al.* 2001). The result is a brilliant tour-de-force that should be required reading for both anthropologists and psychologists.

One important contribution of ACC is the historical analysis explaining how we have come to this impasse. Bloch argues that anthropologists have resisted cognitive sciences in order to avoid (among other things) reductionism and genetic determinism. This backdrop is crucial for reminding us of the potential pitfalls of an overly enthusiastic embracing of biological bases to social difference (Dar-Nimrod and Heine 2011), and for underlining the implicit and unexamined assumptions that underlie distinct research traditions. Most notable among them is the idea, casually embraced by psychologists as well as anthropologists, that nature and culture are deeply opposed. Yet as Bloch reminds us: ‘There are no non-cultural bits of us as there are no non-natural bits. ... [W]e are simultaneously created by our biology, which includes our psychology, and by history and culture’ (pp. 76, 119). The implications of this point are far-reaching. If history/psychology and biology/culture are inextricably intertwined, then neither psychologists nor anthropologists can afford to simply ignore the other.

With the problem diagnosed, then, what is to be done?

Bloch documents that understanding any complex concept (such as time, or social relationships, or ‘the self’, or memory) requires different levels of analyses, and correspondingly, different approaches depending on one’s question. He further makes a powerful case for the value of psychological concepts and methods in anthropological research; readers who are cognitive psychologists will find themselves nodding along in enthusiastic agreement. An example *par excellence* is the monograph by Astuti *et al.* (2004), who disentangled, with surgical precision, the metacognitive beliefs of the Vezo regarding property transfer in human groups from their unarticulated but foundational essentialist beliefs. Another compelling example (from Regnier 2012; see also this volume) illustrates how cognitive science models of essentialism shed light on marriage

practices in Madagascar, where the descendants of free persons show opposition to marrying the descendants of enslaved persons. This bias is evident even though slavery was abolished in Madagascar in 1896 and the descendants of free and enslaved persons are empirically indistinguishable. In this case, slavery is (implicitly) essentialised, which in turn influences social practices more than 100 years later. Although much more work needs to be done, we are encouraged by the recent contributions of other scholars as well, including: Astuti and Harris (2008); Atran *et al.* (2005); Hirschfeld (1996); Keane (2015); McIntosh (2009); Rogoff (2011); Taverna *et al.* (2012); Watson-Jones *et al.* (2014).

What these examples (and others) have in common is a combination of approaches that might at first seem paradoxical: on the one hand, deep knowledge and appreciation of the culture and language of the group under study, and on the other hand, concepts of individual psychological processes and controlled scientific methods. We also underscore Bloch's point that evidence regarding the cognitive development of children holds particular value and promise. As Chomsky reminded us, any cognitive theory must be compatible with the reality of how children learn. In Chomsky's case, this meant that linguistic theories of grammar had to square with the 'learnability' puzzle – that is, the fact that children acquire their native tongue, in much of its spectacular complexity, by 3 or 4 years of age. In the case of culture, there is undoubtedly a parallel learnability puzzle. Yet precisely what this means is largely still unknown, as we don't yet have sufficient data regarding the representations and behaviours of children from a variety of societies. We urge more serious attention to developmental considerations, on both sides of the disciplinary divide.

Although Bloch (the anthropologist) eloquently argues for psychological approaches to anthropology, we (two psychologists) would love to hear more about the value of anthropological approaches to cognitive sciences. This is a topic that the book largely sets to the side, as the proper subject matter for another book (p. 1). This is unfortunate and somewhat ironic, as there is now a sea-change in psychology, with a belated realisation that claims about human cognition are typically drawn from overly narrow samples, and are therefore not sensitive to human cognitive variation (Heinrich *et al.* 2010). This is so not only with intuitively culture-dependent processes, such as adult ideas of reciprocity, but even for seemingly 'hard-wired' processes, such as infant visual perception (Bar-haim *et al.* 2006). We thus applaud Bloch for the extraordinary book he has written, but end with a plea for a sequel, explaining the cultural challenge to cognitive scientists.

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