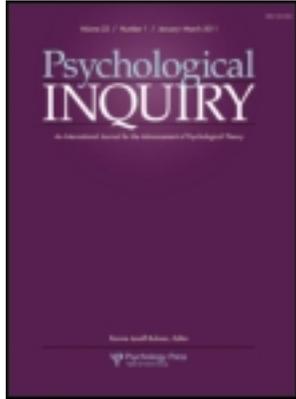


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Why Am I Not Just Lovin' Cultural Neuroscience? Toward a Slow Science of Cultural Difference

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Why Am I Not Just Lovin' Cultural Neuroscience? Toward a Slow Science of Cultural Difference

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Introduction

Joan Chiao and colleagues (this issue) have done an impressive job reviewing much of the literature currently categorizable under the cultural neuroscience heading. This demonstrates aptly a research field in rapid development providing a wealth of new empirical findings that challenges many standard assumptions of universality. As such, a cultural dimension to empirical studies may provide a source of relativism (Roepstorff, 2011) in neuroscience, cognitive science, and behavioral genetics. To the extent that systematic attention to empirical variations is a hallmark of proper science, this is an important development, and there is no doubt that the field reviewed by the authors is in rapid progress. As such, I'm lovin' it. However, I am somewhat underwhelmed by the "promise" section of the review. There may be an immediate joy of seeing how fields as diverse as the neural basis of the self, oxytocin receptor polymorphism, and theory-of-mind activation seem to carry a cultural component. But reading the promise part of the article feels a bit like eating a fast meal, and I, at least, am left hungry for something else. By analogy to the slow food concept, we may need a slow science (Frith, 2012; Stengers, 2011) of cultural differences. Next I explore what that could entail.

Cross-Cultural Neuroscience in the Making

In social anthropology, the notion of culture as an analytical variable has had a somewhat bad press for a while (Kuper, 1999; Roepstorff & Bubandt, 2003). One problem about using culture as an analytical variable is that it appears fractal in nature. That is, as one zooms in, differences appears to replicate at yet new levels. Are we talking of cultural differences at the level of East Asians and Westerners, or at the level of Danes within Europe, or regions within a country, or differences between subcultures, like urban farmers and countryside entrepreneurs? A classical answer in anthropology is a research strategy, which cares less about identifying cultures by their presumed innate differences but is more interested in how differences appear to be produced and sustained on the borders

between groups, whatever their constitution (Barth, 1989). This accentuation of differences appears a key mechanism of Culture and of cultures, and studying this entails more focus on understanding how emergent dynamics may happen in interaction between concrete individuals and less focus on mapping out gross differences between abstract categories of millions, or indeed billions of people, like North Americans, East Asians, Chinese, or Danes.

From this perspective, the field of cultural neuroscience is as much a cultural product as neutral description, and the labeling of certain groups as collectivistic, others as individualistic, becomes not only a neutral category, which passively traces differences in the world, but also an active element of a self–other distinction that comes to carry importance both inside and outside the lab.

I experienced this very concretely in the cause of a recent study, which looked at differences in neural activation, while young Danish and Chinese students related adjectives to themselves and to others (Ma et al., in press). The study used a version of the Trait Adjective Judgment Task to look at differences in self and other activation in an fMRI context. As such, it was a strictly ballroom cultural neuroscience study, which applied a widely used way to measure the neural substrate of the self (Zahavi & Roepstorff, 2011) to representatives of comparable samples of two different groups. The findings were strong and somewhat surprising. In the difference between reflecting on the social aspects of the self and of a famous other, the Danes and the Chinese students appeared to pursue different strategies, with the Danes on average and in this contrast showing more activity in the medial prefrontal cortex and the Chinese more activity in the temporal parietal junction. This appeared mediated by self-reported measure of independence, but the same mediation could also be found within groups, suggesting that a similar link between behavioral strategy and neural mechanism could be at play.

The study thus supported both a universal interpretation (a shared mechanism for social identity) and a relativist interpretation (appear different accentuated in different cultural contexts). Obviously, the study became not only a study of students at our respective universities. This was our first attempt at a joint

collaboration, and during the writing of the paper, the extent to which these generalized findings of difference could be extrapolated to our own identities and strategies of interaction became a constant theme of discussion. Could we, as researchers and individuals, also be captured by the heading of independent Westerners and interdependent Easterners? Did that affect our strategies of interaction and our understandings of self and other, not in the abstract but in the very concrete task of working together? To what extent could these differences translate into a reality outside of the laboratory, where we, as embedded in very different societies, were caught up in very different ways of mediating between individual actions and common goods (e.g., being subject to a strict one child policy as opposed to being subject to the highest level of personal taxation worldwide for the distribution into a common pot)?

There were no obvious answers to these issues, but the study became a site for exploring identity *making*, between the researchers in the group, as much as identity *mapping*, of those young students in Aarhus and Beijing who volunteered to go into the scanner and answer strange questions about themselves and famous others. This experience is, I suggest, not unique to our study but a really interesting and understudied aspect of “cultural neuroscience.” By using novel technologies of knowledge making, it present a new site for reflecting about identity, both in the very concrete, of those involved in the research, and in the very general, for those millions and billions of people caught by its assumed categories.

What’s Cooking?

One take-home message from the review is that we, as humans, are cultural. That is, important aspects of our patterns of thinking and behavior and, it increasingly seems, perhaps even our basic biology is shaped by the environment in which we have developed. It is important to note that this is an environment where other people, their ideas and values, motives and actions, are as real as the climate and other aspects of the physical worlds. Equally important, some of these patterns of practice extends not just beyond individual in space but also in time. The languages we speak are one instance of this. As such, humans are *cultured*, that is, grown. The “gene–culture–coevolution model” attempts to catch aspect of this, but it is fundamentally bypassing that people are not just a passive nexus of the causal powers of culture and genes (Ingold, 2003). What is missing from that story is that we are not just *grown*, we are also *growers*; that is, we are living in a world where, with others, we are constantly creating novel conditions for our thinking and acting. The advent of cultural neuroscience is in itself an interesting instance of this: By shifting the boundary conditions

of knowledge making, by not just scanning Western students (Chiao, 2009) and other WEIRD subjects (Henrich, Heine, & Norenzayan, 2010), the avant-garde of cultural neuroscience are changing the knowledge we have of ourselves and of our world, thereby, in an important way, creating a different world for us to live in.

In the nutritional realm, the slow food movement has been restating a simple fact: Food is not just something we consume, it is also something we produce. Of importance, they say, the way we grow it, cook it, and eat it is part of making us who we are. It is not so much a matter of “you are what you eat” but equally a matter of “you become how you cook.” Like food, culture is not just something that constitutes humans. Cultural differences are not just passive categories to be picked up, they are also distinctions that are made and used, and as such they are important vectors actively shaping our understanding of the world. This looping effect of human knowledge (Hacking, 1995) may be a critical part of that which makes humans cultural, and this seems to be a mechanism, which cultural neuroscience cannot escape. This is not a bad thing. In the years to come, cultural neuroscience may become one of the very important venues for identifying and reflecting on differences and identities within and between groups of people. Realizing this may call for a slow science of cultural difference. This is very different from a happy meal of fast facts that are more concerned with generalizing by the millions or billions than understanding individual differences, strategies, and identities. A slow science approach would care about how we grow, cook, exchange, and share knowledge about ourselves and others, and it would be interested in mapping out how that affects the world we jointly live in.

Note

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References

- Barth, F. (1989). The analysis of culture in complex societies. *Ethnos*, 54, 3–4.
- Chiao, J. Y. (2009). Cultural neuroscience: A once and future discipline. *Progress in Brain Research*, 178, 287–304. doi:S0079-6123(09)17821-4 [pii] 10.1016/S0079-6123(09)17821-4
- Frith, U. (2012). Slow science [Weblog post]. *Not-yet-a-blog*. Retrieved from <https://sites.google.com/site/utafrih/not-a-blog/slowscience>
- Hacking, I. (1995). The looping effect of human kinds. In D. Sperber, D. Premack, & D. Premack (Eds.), *Causal cognition. A multi-disciplinary debate* (pp. 354–394). Oxford, UK: Clarendon.

COMMENTARIES

- Henrich, J., Heine, S., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, *466*, 29.
- Ingold, T. (2003). Three in one. How an ecological approach can obviate the distinctions between body, mind and culture. In A. Roepstorff, N. Bubandt, & K. Kull (Eds.), *Imagining nature* (pp. 40–55). Aarhus, Denmark: Aarhus University Press.
- Kuper, A. (1999). *Culture: The anthropologists' account*. Cambridge, MA: Harvard University Press.
- Ma, Y., Bang, D., Wang, C., Allen, M., Frith, C., Roepstorff, A., & Han, S. (2012). Sociocultural patterning of neural activity during self-reflection. *Social Cognitive and Affective Neuroscience*. doi: 10.1093/scan/nss103
- Roepstorff, A. (2011). Culture: A site of relativist energy in the cognitive sciences. *Common Knowledge*, *17*, 37–41.
- Roepstorff, A., & Bubandt, N. (2003). Introduction: The critique of culture and the plurality of nature. In A. Roepstorff, N. Bubandt, & K. Kull (Eds.), *Imagining nature. Practices of cosmology and identity* (pp. 9–30). Aarhus, Denmark: Aarhus University Press.
- Stengers, I. (2011). "Another science is possible!" A plea for slow science. Retrieved from http://threerottenpotatoes.files.wordpress.com/2011/06/stengers2011_pleaslowscience.pdf
- Zahavi, D., & Roepstorff, A. (2011). Faces and ascriptions: Mapping measures of the self. *Consciousness and Cognition*, *20*, 141–148.