

In BEHAVIORAL AND BRAIN SCIENCES (2009) 32, 534-535

Commentary on Ryan T. McKay & Daniel C. Dennett, "The evolution of misbelief" In BEHAVIORAL AND BRAIN SCIENCES (2009) 32, 493-561

## Culturally transmitted misbeliefs

doi:10.1017/S0140525X09991348

Dan Sperber

Institut Jean Nicod, ENS, 75005 Paris, France.

**Abstract:** Most human beliefs are acquired through communication, and so are most misbeliefs. Just like the misbeliefs discussed by McKay & Dennett (M&D), culturally transmitted misbeliefs tend to result from limitations rather than malfunctions of the mechanisms that produce them, and few if any can be argued to be adaptations. However, the mechanisms involved, the contents, and the hypothetical adaptive value tend to be specific to the cultural case.

Most of humans' beliefs, or at least most of their general beliefs, are acquired through communication. I owe my beliefs that I was born in Cagnes-sur-mer, that Washington is the capital of the US, that mercury is a metal, that dodos are extinct, that stagflation is bad, and so on ad indefinitum, not to my own perceptions and inferences on those matters, but to the words of others. Are these beliefs "grounded" in McKay & Dennett's (M&D's) sense, that is, "appropriately founded on evidence and existing beliefs" (target article, sect. 1, para. 2)? Not on relevant evidence and beliefs available to me. I hold these beliefs because I trust their sources (or, anyhow, trusted them at the time I formed the beliefs). My trusting of sources may itself be founded on appropriate evidence of their trustworthiness, but quite often it is founded rather on my trust of yet other sources that have vouched for them; for instance, I trusted the textbooks I read because I trusted the teachers who vouched for them, and I trusted the teachers because I trusted my parents who vouched for them. Needless to say, the authors of the textbooks themselves were just reporting information from yet other sources.

Of course, however long the transmission chain, communicated beliefs may be vicariously grounded in appropriate evidence and background beliefs that had been available to the initial communicators. Nevertheless, long chains of transmission carry serious epistemic risks of two kinds. First, judgments of trustworthiness are less than 100% reliable, so that, generally speaking, the longer the chain, the lesser its compounded reliability (and this even if, serendipitously, the initial source of the transmitted belief happens to be have been trustworthy). Second, information is typically transformed in the process of transmission. As a result, a belief at the end of the chain is quite often different in content from the one at the beginning and therefore cannot vicariously benefit from initial grounding. This is particularly

true of orally transmitted cultural beliefs, notably religious beliefs of the kind studied by anthropologists. One generation's religious beliefs may undergo changes in its lifetime and anyhow is a transformation of the beliefs of the previous generation. There is no initial religious belief at the dawn of time, but rather, an increasing – and sometimes decreasing – religious tenor in a variety of beliefs; later beliefs are not copies of earlier ones.

The absence of appropriate grounding not just of religious beliefs, but of so many others cultural beliefs concerning, for example, food, health, or the moral traits of ethnic groups, means that human population are inhabited by a host of poorly grounded or ungrounded beliefs. Most of these are, in the terms of M&D, misbeliefs. In fact, most of our misbeliefs are culturally transmitted misbeliefs rather than individual mistakes, distortions, or delusions.

Does this mean that the social and cognitive mechanisms through which we come to hold cultural misbeliefs are malfunctioning? Are humans irrationally gullible? No, the prevalence of cultural misbeliefs is compatible with the view that the mental mechanisms involved in epistemic trust (Origg 2004) and epistemic vigilance (Mascaro & Sperber 2009; Sperber et al., forthcoming) are calibrated to filter information in interpersonal communication, if not optimally, at least reasonably well. They do, however, create a susceptibility to misinformation that originated not in one's direct interlocutors but long before in extended chains of transmission. This vulnerability is enhanced when it is well beyond the individual's competence to assess the truth or at least the plausibility of the contents transmitted. This is particularly the case when the contents in questions are too obscure to be open to epistemic assessment.

In the process of cultural transmission and transformation, beliefs may lose not only their empirical grounding but also their epistemic evaluability. For a belief to be evaluable, it must have a propositional content, that is, be true-or-false. One may relax the criterion so as to take into account the fact that many, possibly most, of our beliefs are not sharply propositional and may, in a range of limiting cases, lack a truth value. Still, for beliefs to be informative and guide action, they had better, in most ordinary situations, be such that their relevant consequences, practical consequences in particular, can be inferred. Many culturally transmitted beliefs do not satisfy this criterion. Their content is not just vague; it is mysterious to the believers themselves and open to an endless variety of exegeses. These are what I have called semi-propositional or half-understood beliefs (Sperber 1982; 1997). The paradigmatic example of a semi-propositional belief is the dogma of the Holy Trinity, which the believers themselves insist is mysterious. Of course, philosophers who define a belief as an attitude towards a proposition may dispute that "semi-propositional beliefs" are beliefs at all. But from a cognitive and social science point of view, a definition of belief that excludes most religious beliefs renders itself irrelevant. In particular, it disposes by definitional fiat of a wide class of cultural beliefs of which it can be disputed whether they are false or lack truth value, but that are definitely not true and hence are misbeliefs (even religious believers would accept this of religious beliefs other than their own, i.e., of the vast majority of religious beliefs).

I have long argued that cultural misbeliefs occur and propagate as a by-product, a side-effect of our cognitive and communicative dispositions (Sperber 1985; 1990). Still, it could be that some of these misbeliefs or some classes of them contribute to the reproductive success of their carriers in a manner that indirectly contributes to their own propagation. One possible class of such adaptive cultural misbeliefs would be beliefs the expression of which contributes to group identities and solidarities that enhance the individual's fitness. Unlike the positive individual illusions discussed by M&D, the adaptiveness of such beliefs does not come from the manner in which their content guides the believers' actions. It is not the content of the beliefs that matters; it is who you share them with. Yet not just any content is equally appropriate to serve such an adaptive role. In particular, a content unproblematically open to epistemic evaluation might either raise objections within the relevant social group, or, on the contrary, be too easily shared beyond that group. So, semi-propositional contents are *ceteris paribus* better contents for beliefs the adaptive value of which has to do with cultural sharedness, not because these contents contribute to this adaptive value by guiding action, but because they do not stand in the way of acceptance by the relevant group. Their content may also have features that contribute positively to their cultural success, for instance by rendering them more memorable, but this is another story (see, e.g., Atran & Norenzayan 2004; Boyer 1994; Sperber 1985).

### References

- Atran, S. & Norenzayan, A. (2004) Religion's evolutionary landscape: Counterintuition, commitment, compassion, communion. *Behavioral and Brain Sciences* 27:713–70.
- Boyer, P. (1994) *The naturalness of religious ideas: A cognitive theory of religion*. University of California Press.
- Mascaro, O. & Sperber, D. (2009) The moral, epistemic, and mindreading components of children's vigilance towards deception. *Cognition*. 112(3):367–80.
- Origi, G. (2004) Is Trust an Epistemological Notion? *Episteme* 1(1):61–72.
- Sperber, D. (1982) Apparently irrational beliefs. In: *Rationality and relativism*, ed. S. Lukes & M. Hollis, pp. 149–80. Blackwell
- (1985) Anthropology and psychology: Towards an epidemiology of representations (The Malinowski Memorial Lecture 1984). *Man* 20:73–89.
- (1990) The epidemiology of beliefs. In: *The social psychological study of widespread beliefs*, ed. C. Fraser & G. Gaskell, pp 25–44. Clarendon Press.
- (1997) Intuitive and reflexive beliefs. *Mind and Language* 12(1):67–83.
- Sperber, D., Clément, F., Heintz, C., Mascaro, O., Mercier, H., Origi, G. & Wilson D. (forthcoming) Epistemic Vigilance. *Mind and Language*.