



How are evolution, cognition, and culture interconnected? [Cecilia Heyes](#) and I are both interdisciplinary scholars trying to help address this basic issue but we go about it in generally different and often conflicting ways. Heyes has been a forceful critic of the Evolutionary Psychology approach defended by Cosmides, Tooby, Pinker and others (see [here](#) for instance). Much of my work, on the other hand, draws on Evolutionary Psychology and aims at contributing to it. So, when I saw that [The Enigma of Reason](#), the book Hugo Mercier, a fellow evolutionary psychologist, and I have recently published, had been [reviewed in the Times Literary Supplement](#) by Heyes, I braced myself for smart critical comments. I was wrong. Hers is a positive, very generous, open-minded, insightful review (for which Hugo and I are very grateful).

I particularly like the way Heyes encapsulates our central claim that reason is a social competence: “reasoning, like sex, works better,” she writes, “when another person is involved.”

Heyes however doesn’t fully accept our evolutionary account of the social function of reason:

“The central thesis of *The Enigma of Reason* – that reasoning has a social function – is convincing; the argument that it was genetic evolution which did the tuning is less so. A likely alternative, which Mercier and Sperber’s book does not address squarely, is that reasoning is tuned *for* social interaction *by* social interaction.”

Let me use Heyes’ own analogy to try and defend (and fine-tune) our point of view. Sexual organs are genetically evolved. In some animal species, humans in particular, they can be used either in a solitary fashion or in interaction with others, typically with individuals of the opposite sex. Both uses are common. Actually, it is quite plausible that, in most societies, solitary masturbation occurs more frequently than standard copulation. Given this, one might be tempted to make a suggestion parallel to Heyes’ suggestion about reasoning: sex is tuned *for* social interaction, copulation in particular, *by* social interaction. Of course, in most animal species this would be blatantly false: How much social tuning is involved in insect copulation for instance? In humans, however, this is quite generally true. While most people may well discover masturbation on their own, they typically learn about sexual intercourse from others through conversation, joint action, or alas coercion. [A while ago, I blogged about a literary apparent counterexample to this generalisation, Zola’s *La Faute de l’Abbé Mouret*, [here](#).] Interactive sex in humans is, to some serious extent, a socially acquired skill.

What this shows is not that, as far as genetic evolution is concerned, human sex is neutral between

masturbatory and copulatory uses. What is shown, rather, is that being tuned for social interaction by social interaction is quite compatible with being genetically evolved for social interaction *and* for being tuned by social interaction. After all, many evolved cognitive and more generally behavioural dispositions involve a sub-disposition to flexibly adjust the mechanism to the environment in which the individual organism develops.

In *The Enigma of Reason*, we evoked but didn't discuss in detail the way the socio-cultural environment may tune the social production and evaluation of arguments (and Heyes makes further interesting suggestions on this). We would agree with her that such tuning plays a significant role and must be studied in order to get a comprehensive account of reasoning practices across cultures (something we advocate but don't do in the book). Rather than an alternative to our evolutionary account of reason, we see this as a straightforward extension of it.