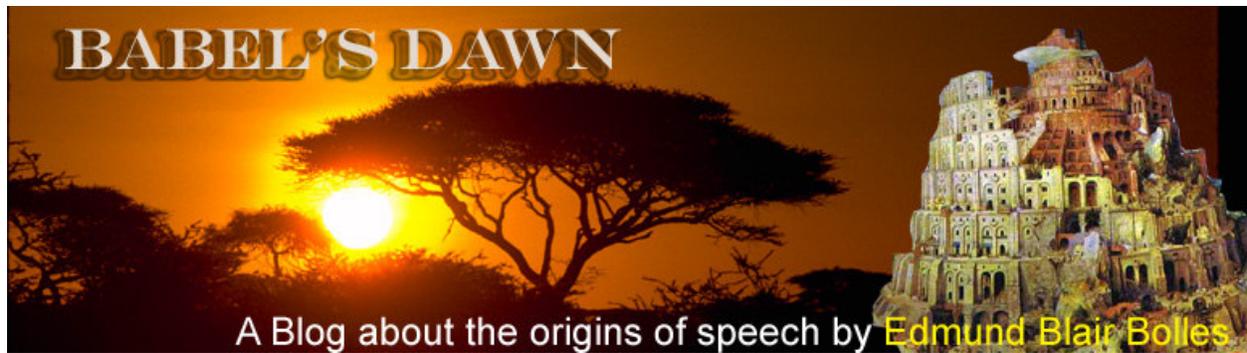
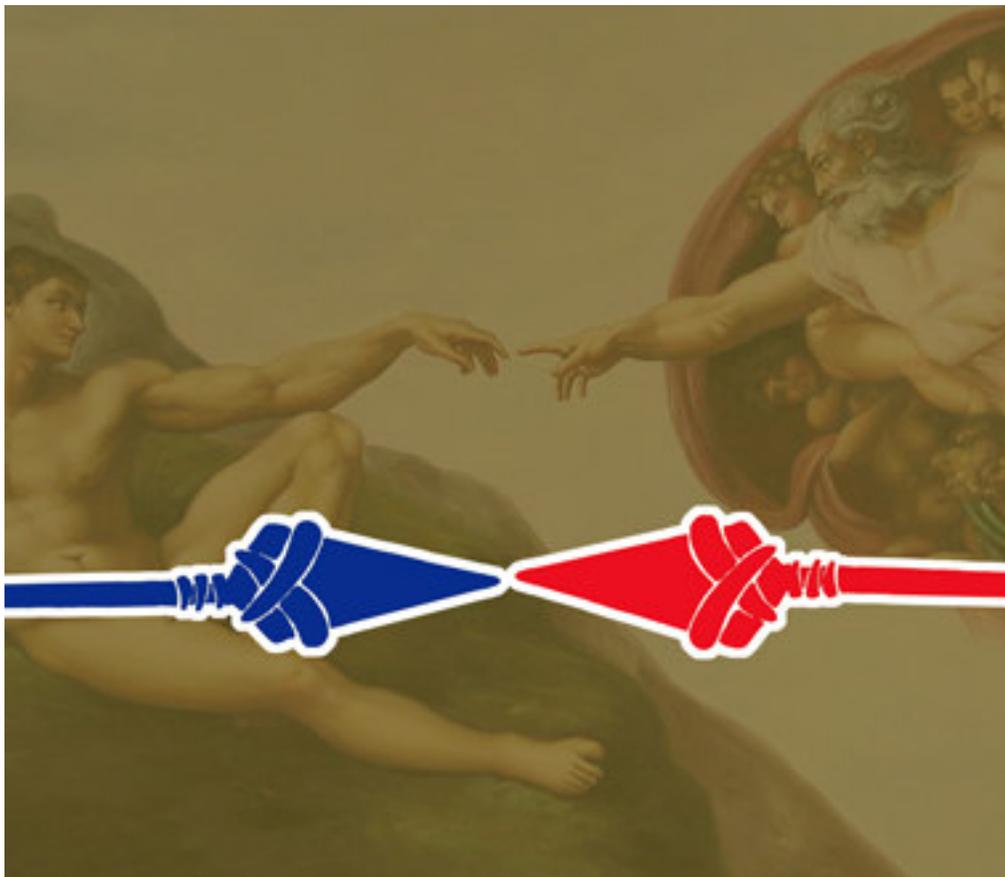


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Post of: August 23, 2009

## Partisanship in Academia



**Scholars go spear to spear** over what a piece of work is man. Blue sees him as the paragon of animals, red as the quintessence of dust.

Oooo, what fun. A quarrel has broken out in the pages of *Nature* journal over the evolution of cognitive abilities. An essay appeared last April, that brought a reply in July, and now a letter replying to the reply appeared. The back-and-forth is a bit slow for this age of the Internet, but *Nature* is an old-fashioned publication. The quarrel is over matters a bit more broad than the origins of speech, but speaking depends on cognitive abilities and, therefore, is implicit in the debate.

The initial essay by [Johan Bolhuis](#) and [Clyve Wynne](#) asked, “Can evolution explain how the mind works?” (abstract [here](#)) The work questioned the assumption

that species with shared ancestry will have similar cognitive abilities, and that the evolutionary history of traits can be used to reveal how we and other animals perform certain mental tasks. [p. 832]

Although the question sounds technical, the examples they used suggested that the species they had in mind was us. They seemed to be questioning whether we can learn anything about human cognitive abilities by studying their evolutionary history. Since this blog is dedicated to the proposition that we can learn something about the nature of humans and speech by studying the evolutionary history of speech, the paper would seem to be a direct challenge to what I’m doing here.

I read the paper when it first appeared and considered reporting it then, but decided not to, probably because the paper was too broad to take personally and it said nothing directly about this blog’s main technique of looking for things we don’t share in common with chimps and bonobos. Nevertheless, on rereading the paper I find some of its thrusts have stayed with me. For example, there is a famous study in which capuchin monkeys are supposedly shown to have a sense of fairness because they reject a slice of cucumber reward if they see another monkey rewarded with a grape. But, the authors report, further investigation reveals that the monkeys reject the cucumber if they even see a grape that they cannot reach. It suggests that the interpretation of the original rejection is unclear and perhaps monkeys simply hold out for the best reward they know to be available.

The most provocative part of the essay is its questioning of evolutionary psychology and its assumption that “our modern skull houses a Stone Age mind.” The conclusion of this passage is that behaviors have to be understood in terms of development, function, and mechanistic causes, and that too much emphasis is often placed on the mechanistic causes. If, back when it first appeared, I had posted a notice about this paper, this point of multiple explanations of behavior would have been my subject. I notice they did not list structure, which is the focus of much linguistic inquiry into language and is exactly what many linguistically-trained authors try to confront when they discuss language origins. But that observation does not knock down the author’s work, merely expands on it.

The authors’ point was a bit blunted by the essay’s confusing organization, but they seemed to insist that we have to study behaviors in terms of development, function, anatomical support, etc. rather than starting with *a priori* ideas about how evolution works. “We must study animal and human minds empirically without naïve evolutionary presuppositions.” [833]

I was, therefore, a little surprised that [Frans de Waal](#) began his rebuttal (available [here](#)) by appealing to an *a priori* proposition.

In 1739, the Scottish philosopher David Hume wrote: "When any hypothesis...is advanc'd to explain a mental operation, which is common to men and beasts, we must apply the same hypothesis to both."

Even more amazing is that the *a priori* argument comes from a position stated 120 years before Darwin. So, when de Waal argues as a Darwinian, he has already undercut that position by showing the proposition is much older than evolutionary biology.

De Waal is most famous for his account of bonobos and takes the position that “the *a priori* rejection of continuity between humans and other animals has led people to systematically underestimate animals.” So everybody points fingers and says the other side is anti-empirical.

De Waal specifically defends anthropomorphism, and in his original draft called it a “non-issue” (see his blog report [here](#)). He argues, empirically, “efforts to single out distinctly human capacities have rarely held up to scientific scrutiny for more than a decade, such as claims about culture, imitation, planning and the ability to adopt another's point of view.” I cannot help noticing that de Waal does not mention speech, a readiness to share information, and an interest in neutral topics, let alone the linguist's specialty, syntactically organized output. Chimpanzees have been studied in the wild continuously for almost 50 years without the discovery of language.

The rarest of all debates is the tough one where people go right after one another's central core. It can happen. I've written a couple of books about quarrels that faced up to the nitty-gritty, but in this case it looks like people are talking past each other. It is obviously true that there are many discontinuities between humans and apes, starting with speech, but it is also plainly true that there are many continuities, including many that support speech.

Regrettably [Jonathan Marks'](#) letter (abstract [here](#)) does not take this continuity/discontinuity position. He argues with de Waal, citing two cases of discontinuity: chimpanzee infanticide vs human infanticide; chimpanzee foot vs human foot. They are interesting cases but do not really abolish the other side.

Marks ended his letter by asking:

A genuine Darwinian approach to primate behaviour may have to acknowledge that the brains of apes (and their capabilities) may simply be different from our own, like their feet. Evolution, after all, is the production of difference. If one scholar acknowledges the adaptive divergence that has occurred between a human and a chimp over 7 million years or so of separation, and another insists that they are the same, then who is really in denial of evolution?

Yes, evolution produces differences, but it also conserves similarities. That two-headed hydra seems obvious, and yet we've got a bunch of top scholars picking sides.

#### Links:

Johan Bolhuis: <http://www.bio.uu.nl/behaviour/Bolhuis/>

Clyve Wynne: <http://www.psych.ufl.edu/~wynne/>

Bolhuis/Wynne abstract: <http://www.nature.com/nature/journal/v458/n7240/full/458832a.html>

Frans de Waal: [http://www.emory.edu/LIVING\\_LINKS/dewaal.html](http://www.emory.edu/LIVING_LINKS/dewaal.html)

Waal reply: [http://www.emory.edu/LIVING\\_LINKS/Nature\\_essay.htm](http://www.emory.edu/LIVING_LINKS/Nature_essay.htm)

Waal blog: [http://www.emory.edu/LIVING\\_LINKS/2009/07/darwins-last-laugh.htm](http://www.emory.edu/LIVING_LINKS/2009/07/darwins-last-laugh.htm)

Jonathan Marks: <http://personal.uncc.edu/jmarks/>

Marks abstract: <http://www.nature.com/nature/journal/v460/n7257/full/460796a.html>