Shorter Note

Some Observations on 'The Neanderthals: a Social Synthesis'

(Davies & Underdown *Cambridge Archaeological Journal* 16.2 (June) 2006, 145–64)

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Davies & Underdown propose to erect a social synthesis for examining the validity of inferences about Neanderthal social life but they do not deliver what they promise. Instead, they offer a discussion of the many lines of evidence involved in Neanderthal research and, unintentionally, a good illustration of just what a mess research on modern human origins is at present — more specifically, how contradictory the conclusions about Neanderthal sociality actually are, and how weak our inferential logic is. No real solution is offered.

As I have pointed out on numerous occasions (e.g. Clark 1987; 1993; 1999; 2001), the fact that all those engaged in Neanderthal research at least nominally acknowledge an overarching conceptual framework (i.e. evolutionary biology) does not guarantee any consensus at lower (especially sociological) levels in the research process. Like a fine wine, bias does not 'travel well' across research traditions. I have argued that we should make preconceptions, biases and assumptions as explicit as possible. This alone will make the logic of inference more secure — not simply the acquisition of more and better data (as data have no meaning outside the boundaries of a conceptual framework that defines and contextualizes them). It is a very modest proposal, but my argument has encountered stiff opposition from those who mistakenly think I am claiming that palaeoanthropology is 'unscientific', 'substandard science', simply a narrative, etc. To borrow a phrase from David Clarke (1973), all good science is critically self-conscious science.

The essay does not really go very far to 'explore[…] the validity of the conclusions' (Davies & Underdown 2006, 145) , although it does mention most of the bones of contention in the archaeology of our origins. More important are the many substantive misrepresentations of well-defined and published positions. For example, I reviewed Mellars (1996; favourably) and cannot recall that he made a distinction between cognitive and emotive behaviour (Clark 1997; Davies & Underdown 2006, 157). Much of the article seems to be aimed at Paul Pettitt who, if he actually said some of the things attributed to him by these authors, must have extremely questionable judgement (e.g. Neanderthal camp sites not different from those of other non-human carnivores; few differences in social organization from other higher primates). Another target is Clive Gamble, whose *oeuvre* might accurately be characterized as 'creative' in both the best and worst possible senses of the term (e.g. while Neanderthals could emulate, they could not fully understand; they had no separation between 'tool' and 'self'; they were incapable of either directed problem solving or planning depth). Statements like these do not mean anything in the absence of explicit operational definitions of terms and concepts.

One of the things that occurred to me while reading the essay was that many of the European archaeologists cited could benefit from the comparative experience of working somewhere else. Time and time again, some allegedly universal generalization is made based on (usually West) European data that is obviously invalid for, say, the Middle East (e.g. those observations about limestone rubble (Davies & Underdown 2006, 155) attributed to Munzel & Conard (2004) and Pettitt (1997)).

European archaeologists could also benefit from scanning the literature outside the narrow confines of Palaeolithic archaeology, in particular that of evolutionary psychology. Modern evolutionary psychology is a far cry from the reductionist sociobiology from which it arose. Over the past three decades, it has become clear that animals think and psychology evolves. There is now a very considerable body of empirical support in behavioural studies of non-human primates (especially apes, monkeys) and other animals for the evolution of mind. From a materialist perspective, what we regard as 'mind' or 'spirit' consists only of matter arranged in complex ways. 'Mind', therefore, is a consequence of brain evolution (more precisely, a consequence of the material substrate of the neurology of the brain). Since we can show that our brains have evolved over the seven million years for which

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we can document the existence of our lineage, what constitutes 'mind' has also evolved (Clark 2000).

The evolution of mind is no longer contentious in behavioural science (nor indeed in some quarters of Palaeolithic archaeology: e.g. Steele & Shennan 1996, Mithen 1996). It does, however, encounter formidable resistance from the godly (who, in the USA at least, are numerous, vocal and politically influential). Materialist western science would hold that religious beliefs are curious survivals of earlier cognitive evolution. As our cognitive capacities slowly expanded over the course of the Pleistocene, we came to imagine more and more complex realities and, in order to make sense of them, populated them with the gods, demons and spirits (i.e. the non-material) that are the stuff of religious belief. Religious tenets, precepts and proscriptions (especially those dealing with morality and ethics) are *ex post facto* rationalizations for existing social conditions. To the extent that they cohere cross-culturally and through time, it is because they reflect universal aspects of human social life, shaped by our evolutionary heritage as social primates. It has also become clear in the past decade that our moral sense is innate (i.e. behaviours we would label as 'moral' or 'ethical' had they appeared amongst humans are documented in non-human primates and other animals: e.g. de Waal 1996). The content of our moral sense, on the other hand, is a consequence of our individual life histories as played out in the context-specific and historically contingent societies of which we are all a part. In other words, there is massive evidence for natural selection in the evolution of human cognition, and that evidence is entirely consistent with the conceptual framework of modern evolutionary biology (Dennett 2006).

Humans are, after all, nothing more (or less) than highly intelligent, technologically sophisticated, socially complex animals. And we are only unique in the same way that any species is unique, by virtue of possessing a unique evolutionary heritage. Much research has been done in recent years on aspects of animal behavioural complexity. Among other things, it shows that octopi have personalities, are capable of planning depth, deception and jealousy and that African grey parrots can not only count but also grasp the concept of zero. Self-recognition, empathy, and tool making traditions are documented in both chimpanzees and dolphins. There is evidence for individual face-recognition and self-awareness amongst sheep. Courtship songs are documented in mice, and laughter in rats. With the emergence of these studies, we are gaining a fuller appreciation not only of the unsuspected complexity of animals and birds but also of their profound resemblances to ourselves (Siebert 2006). And here we are, sitting around noodling over whether or not Neanderthals had language, planning depth and the capacity for symbolic behaviour ... The point, of course, is that most of the behaviours that supposedly distinguish modern humans from Neanderthals are also found not only in apes and monkeys but, in aggregate, in many other animals and birds. Thus it is highly unlikely that Neanderthals differed cognitively from ourselves in any significant way.

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References

Clark, G.A., 1987. Paradigms and paradoxes in contemporary archaeology, in *Quantitative Research in Archaeology: Progress and Prospects,* ed. M. Aldenderfer. Beverly Hills (CA): Sage, 30–60.

Clark, G.A., 1993. Paradigms in science and archaeology. *Journal of Archaeological Research* 1, 203–34.

Clark, G.A., 1997. Review. *The Quarterly Review of Biology* 72, 111–12.

Clark, G.A., 1999. Modern human origins — highly visible, curiously intangible. *Science* 283, 2029–32, 284, 917.

Clark, G.A., 2000. Darwinian dystopia — the shape of things to come. *Futures* 32, 729–38.

Clark, G.A., 2001. On the questionable practice of invoking the metaphysic. *American Anthropologist* 102, 851–3.

Clarke, D., 1973. Archaeology — the loss of innocence. *Antiquity* 47, 6–18.

Davies, R. & S. Underdown, 2006. The Neanderthals: a social synthesis. *Cambridge Archaeological Journal* 16(3), 145–64.

Dennett, D., 2006. *Breaking the Spell: Religion as a Natural Phenomenon*. New York (NY): Simon & Schuster.

de Waal, F., 1996. *Good Natured— the Origins of Right and Wrong in Humans and Other Animals.* Cambridge (MA): Harvard University Press.

Mellars, P., 1996. *The Neanderthal Legacy: an Archaeological Perspective from Western Europe*. Princeton (NJ): Princeton University Press.

Mithen, S., 1996. *The Prehistory of the Mind.* London: Thames & Hudson.

Munzel, S.C. & N. Conard, 2004. Change and continuity in subsistence during the Middle and Upper Palaeolithic in the Ach Valley of Swabia (south-west Germany). *International Journal of Osteoarchaeology* 14, 225–43.

Pettitt, P.B., 1997. High resolution Neanderthals? Interpreting Middle Palaeolithic intrasite spatial data. *World Archaeology* 29, 208–24.

Siebert, C., 2006. The animal self. *The New York Times Magazine* (January 22), 48–55, 72, 79, 86–7.

Steele, J. & S. Shennan (eds.), 1996. *The Archaeology of Human Ancestry.* London: Routledge.

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Response

Robert Davies & Simon Underdown

We would like to thank Clark for his comments. Our starting hypothesis was that a Neanderthal social synthesis could be constructed. In reviewing the literature, we found a paper-thin representation covering a gaping hole in the understanding of the social behaviour of the Neanderthals. Thus we rejected our hypothesis and cautioned against the making of substantive assumptions about Neanderthal cognition when compared to *Homo sapiens*. This is critically self-conscious science.

Clark accuses us of 'many substantive misrepresentations'. We are hard pressed to understand his thinking behind this point. The distinction between cognitive and emotive behaviours is well known in neuropsychology (Gross 2005). He then goes on to accuse us of 'aiming' much of the article at Pettitt. This is patently not the case. One of the sections in the article does refer to Pettitt's work but this merely reflects how influential his representations of the Neanderthals are. The implication Clark makes is clear: that we have either falsified or misrepresented opinions. Ironically, given the central premise of our paper, if Clark had more carefully read the Pettitt paper he cites in his comments he would have noticed that Pettitt did write what we have attributed to him. To suggest that we have misrepresented Gamble is curious. Extensive metaphysical discussion of the concepts of 'self' and 'tool' would have been outside the scope of our argument. Clark dwells for almost half of his comments with the idea that the mind has evolved. We, along with the rest of mainstream opinion, would not deny this. As for the remainder of his extensive comments on the evolution of the mind, Clark is clearly arguing for a processual framework of understanding cognition; an argument Andrew Whitten (1991) has put forward before and with much greater clarity. This is a position with which we broadly concur, as is evident in our conclusion.

Clark's conclusion that 'it is highly unlikely that the Neanderthals differed cognitively from ourselves in any significant way' follows a list of rather disingenuous animal-based examples. To suggest that, because octopuses have planning depth, it is a waste of time to be 'sitting around noodling' about the differences between anatomically modern humans and the Neanderthals misses the entire point of palaeoanthropology as a science. That we should simply shut up shop because other species display cognitive traits similar or comparable to ours borders on scientific nihilism.

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References

Gross, R.D., 2005. *Psychology: the Science of Mind and Behaviour*. 5th edition. London: Hodder Arnold.

Whitten, A., 1991. The emergence of mindreading: steps towards an interdisciplinary exercise, in *Natural Theories of Mind: Evolution, Development and Simulation of Everyday Mindreading*, ed. A. Whitten. Oxford: Blackwell, 319–31.

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