

**Human Evolution, Language and Mind: a psychological and archaeological enquiry.**

**By William Noble and Iain Davidson.**

Cambridge University Press, 1996, paperback £15.95. ISBN 0 521 576350.

Review by Jennie Hawcroft.

This book comes at a time when cross-disciplinary tomes are becoming ever more fashionable. In this case, psychology and archaeology have been combined to attempt an overview of the origins of human cognition, human language and mental capabilities in general. The book is split into two sections, cognitive science coming first and then the archaeology section, with a concluding chapter which seeks to draw together the two threads.

The archaeological sections provide an excellent and exhaustive review of the state of the fossil record, carefully detailing the history of thought on any one site, and the arguments for both sides where there is debate. For example, their detail on the Hadar family is exceptional (p.145). The so-called Hadar family is a collection of fossil bones of *Australopithecus afarensis* from Ethiopia. The main contention surrounding these fossils is over their classification; they were originally identified as comprising members of two or even three species, but later redefined as being members of one, highly morphologically diverse, species. This redefinition has always been controversial and many researchers are now showing that it is unsound on the basis of anatomy. The issue of splitting fossil groups into two or more separate species has always been one which palaeoanthropologists have used to underline their own agendas. This makes it a real 'hot potato' and, as such, accounts of the history of the Hadar classification are often vague. However, Noble and Davidson's coverage of the arguments is in-depth, precise and yet concise, providing a better guide to this battleground of palaeoanthropology than some pure palaeoanthropology textbooks.

I liked the downplaying of inter-hominid differences and the rejection of lists of criteria for inclusion in this or that definition of modernity. This hints at acceptance for the gradualism model of human evolution over that of punctuated equilibrium, although the writers do not state this explicitly.

The highlighting of Australian issues and finds throughout is refreshing. This is understandable, as both authors live and work in Australia and will presumably be hoping to interest their own students in this book. It is also admirable, since too many European and American authors focus on Africa and Europe alone and marginalise the massive human achievements in Australia in the Pleistocene. It is unusual to find Australia placed centre stage in palaeoanthropology, but hopefully this will not be the case for long, if Noble and Davidson have anything to do with it.

Noble and Davidson's writing is of a style which consistently exhibits caution and common sense. For example, the logic of their parsimonious reply to Lieberman (1992) cannot be argued with (p. 212). Lieberman has spent a great deal of energy propounding the view that Neanderthals could not produce certain vowel sounds and therefore were incapable of human language. Noble and Davidson point out that production of certain vowel sounds is not as important in language production as other factors, such as a whole suite of muscular control and vocalisation ability found only in humans. They are not the first to say this (see Pinker 1994) but it's still worth saying.

While it is a relief to see such care displayed, in a subject which is frequently plagued by outlandish claims on the parts of fame-seeking palaeoanthropologists and archaeologists, Noble and Davidson do rather seem to be looking on the pessimistic side. Their rejection of certain radical claims is good, but leads them also to reject and to depict as radical other theories which are, in fact, reasonably well-established and widely accepted within the archaeological community.

This consistent downplaying of available evidence, bringing the archaeological picture down to its most basic 'facts', is a bit depressing. For example, they claim that the first proper examples of meaning in the archaeological record are not seen before the Australian colonisation at 60,000 years ago, which seems rather unfair to the Neanderthal burial sites of the 100-80 ka period.

While Noble and Davidson are admirably fair and exhaustive when discussing pre-Upper Pleistocene human evolution, in the Upper Pleistocene they stick to their own agenda, without, as far as I can see, admitting as much. For example, their dismissal of the importance of the Levallois, something which stems from their plugging of their own 'finished artefact fallacy', seems grossly unfair, not to mention ill-informed. The 'finished artefact fallacy' theory in itself is a valid one and further pursuit of this theory may prove interesting, but I would have thought that if you were going to try to prove that accepted examples of stone tools are actually cores, and the detached flakes are actually the tools, then the Levallois is not something you would want to invalidate!

I noticed a couple of out-and-out errors, again in areas where Noble and Davidson are defending their Upper Pleistocene agenda. The worst is their suggestion that the Shanidar flower burial is simply an example of a bloke who had been asleep in his bed (of plant material) when he was killed by a rockfall where he slept. Quite apart from the fact that it would be quite hard to sleep through the build-up to a rockfall, this is a mistake. Shanidar 1 is the rockfall victim, a skeleton not claimed to be in a deliberate burial, while the famous pollen burial is Shanidar 4, a deliberate burial in flexed position, lying in a square pit. Since they are using the asleep-in-bed scenario to invalidate the suggestion that Neanderthals deliberately buried their dead at all, with or without flowers, this is a bit of a gaffe.

This brings me to my real complaint about this sort of book, although it's hard to level this directly at the authors. I read this book because I am an archaeologist interested in cognitive development throughout human evolution. As such, I recognised the errors and the merit in the archaeological sections, but am not qualified to comment on the cognitive science elements of the tome. Evidently, cognitive scientists feel the same about the archaeology in the book, as psychology journals have carried reviews of it that detail only the parts of Noble and Davidson that they are qualified to deal with (Dickins 1997). For my part, I suspect that there is both error and precision in the cognitive science chapters just as there are in the archaeological ones, but cannot identify them and am forced to take the authors' word for everything. This is a consistent problem with the otherwise commendable trend for cross-disciplinary publications: they are generally read by students of one or other discipline, who have no choice but to assume that the elements relating to the other are correct (unless they go to the trouble of seeking out a second review of the publication, which in turn may be somewhat impenetrable to the non-expert reader). In the above case, cognitive scientists reading this book will think that the case for Neanderthal burials is generally poor and deserves to be disregarded, although the reality is that those who do not accept Neanderthal burial are in the minority.

I would urge authors of books like this to admit whatever agendas they may have and to state frankly the accepted position on issues discussed, as well as their own personal views, if these should differ. I realise that most academic articles and books do follow a specific agenda and that authors naturally like to present any ambiguity in the evidence in a way which most favours that agenda. However, in a cross-disciplinary publication it is important to be explicitly honest, because half of the intended audience of the book will not be familiar with that evidence, although admittedly most will be familiar with reading between the lines of academic politics.

I do applaud the trend for reaching across traditional disciplinary boundaries in publication, even though it has its problems. This is a pretty good example of a cross-disciplinary effort and while there are a few wobbly areas, there are double the

amount of areas of outstanding precision, clarity and comprehension. I would recommend the Lower and Middle Pleistocene coverage of this book to any beginner, but would prefer that the reader had some knowledge of different arguments pertaining to the Upper Pleistocene before embarking on that part of the book. In terms of the non-archaeological aspects, readers keen to explore these elements are advised that a review by Dickins of this book, which details only the cognitive science aspect, is available in the *History and Philosophy of Psychology Newsletter*, British Psychological Society, 25, 1997, pp 31 - 34.

## References

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*[Jennie Hawcroft](#) is in the third year of her Ph.D at Sheffield University. Her research involves Neanderthals, bones, stones and 'PlayDough', and if anyone has a job going in these areas she will be very surprised. Her hobbies are losing at pool and drinking herself into a periodic stupor, especially when the rest of the **assemblage** crowd are present.*

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