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The Emergence of Complex Language
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12.1 Introduction

It has now become rather common to accept that any theory of language is constrained by evolutionary and comparative considerations, as much as considerations of the evolution of language should be constrained by linguistic considerations. This is to say: when and as we develop a theory of what language is like and why it is that way, it is useful to look at the archaeological record, as well as at other (non-linguistic) minds, in order to see what makes language special. At the same time, evolutionary hypotheses on the emergence of language benefit from some independent theoretically informed grasp of what the empirical properties of languages are.

The first constraint is illustrated by the prevailing puzzle of what caused the ‘Great Leap Forward’ (Diamond, 1989) around 80 thousand years ago (kya), which would radically change the evolutionary landscape and the character of mind forever, leading to modern human culture as we know it (McBrearty and Brooks, 2000). While probably not as recent as 35 to 50kya – the period with the richest archaeological evidence found in Europe – this transition remains a very recent and relatively sudden threshold on the evolutionary path to a modern human culture. Section 2 discusses the role that language may have played as a motor of such change, which amounts to a significant shift in the cognitive organisation of early hominids. On some views, the shift depends on the intrusion of grammar into the brain and consequent changes in the organisation of human thoughts. Section 3 argues that at the heart of the emergence of language lies the codification of thought, not communication as such: language structures what is to be communicated, and cannot be understood as arising from the constraints of communication alone.

While this account leaves grammar with a biological base, which the term ‘Universal Grammar’ (UG) traditionally denotes, we nonetheless want to keep the genetic component of the language faculty minimal. Section 4 argues, against frequent arguments for its demise, that UG can nonetheless...
not be empty. This does not mean either, however, that it must be the functionally ‘arbitrary’ linguistic adaptation that many contemporary UG-free theories combat. On the contrary, Section 5 argues that human grammar is precisely organised around the very units of deixis that must have been central to the reorganisation of the early human communicative setting in which human culture arose. This contention not only provides the basic organisation of grammar with a functional rationale, it also derives the recursivity of complex language, which is often assumed as a primitive in current Minimalist accounts of grammar. Section 6 concludes.

12.2 Revisiting the Great Leap Forward

Experiments with language-trained apes sometimes make one forget that even after the hominoid line split off from our common ancestor with chimpanzees around six to seven million years ago (mya), it would take many million years longer, until Homo erectus had evolved into Homo heidelbergensis, commonly considered the common ancestor of both modern Homo sapiens and the Neanderthals today. The momentous point in human evolution where modern Homo sapiens branched off is now commonly located in sub-Saharan Africa and dated at around 200kya. A further gap of at least 100kya remains until we encounter clear evidence for behaviourally modern humans in Africa (McBrearty and Brooks, 2000), with the most solid evidence awaiting the Aurignacian revolution around 35kya, after the exodus of these early humans from Africa and their arrival in Europe (Mellars and Stringer, 1989). Human evolution prior to the threshold of 100kya is characterised by slow progress and cultural stagnation, if not the absence of ‘culture’ altogether. Even to reach the stage at which bipedal early hominids began making crude stone tools would take several million years after the split from the chimpanzee line. These tools begin to appear in the fossil record in Africa from around 2.5mya. This first, ‘Oldowan’, stone-making industry is to last a million years without any apparent innovation, until the arrival of the ‘Acheulian handaxe’ in the erectus lineage marks a genuine cognitive innovation (Gowlett, 1992). This Acheulian technology would remain the primary way of fabricating tools for at least another million years, until about 100kya.

Also a look at Neanderthal ‘culture’ in Europe suggests an essentially static stone-tool culture for more than a hundred thousand years. While occupying much of central Europe and western Asia, the absence of cultural variation and progress in time or space, along with a striking lack of art and symbolism for most of this period, appears to be a mark of Neanderthal lifestyle. What is to happen in the same territory between 35 to 50kya suggests a radical break in mental organisation in early human history – so radical that it plausibly led to the wiping out of the Neanderthal species and the sole survival of the invading species. The cultural changes brought