

ability to use syntax as some sort of miracle that hominids eventually stumbled upon after much trial and error. The evidence reviewed in Chapter 6 should foster scepticism towards any explanations that confuse microevolutionary optimization with the haphazardness of speciation. Consequently, it is wiser to see protolanguage as a system which, well adapted as it was to its function, had no need for syntax as we know it.

### 8.3 Protosemantics

This hypothesis will achieve greater coherence if we try to understand what sort of meanings protolanguage can express and how it is adapted to convey them. In what follows, we shall argue that protolanguage is adapted to the expression of protosemantics, that is to say a field of meanings accessible to *Homo erectus*. What might such protosemantics consist of? In accordance with the principles established in Chapter 6, protosemantics cannot amount merely to a weaker version of *Homo sapiens*'s abilities in semantic representation. It has to be a mode of cognitive organization that is functional and locally optimal. So any arbitrary division, such as restricting its scope to concrete entities or to immediately visible objects, would be inappropriate. If protolanguage ever existed as a means of communication proper to a species, then we must assume that its existence necessarily involved a form of protosemantics. Members of that species communicated about something, and it is that something that we must try to reconstruct. This is an endeavour fraught with potential dangers, as what we are about to embark on is an attempt to reinvent if not the mind of *Homo erectus*, at least some aspects of the cognitive functioning of that mind. The main danger is that, in the absence of subjects on whom to test any hypotheses, we might get carried away and end up piling conjecture upon gratuitous conjecture in a world where the only limit to such things is imposed by authors' lack of imagination. I suggest a more prudent course. The problem facing us (how are we to define protosemantics in relation to protolanguage?) is relatively constrained in four parameters, as follows: (1) protosemantics must be a functional field of meanings; (2) it must be locally optimal for a given biological function; (3) it must subsist in modern humans, either as a fossilized competence or as a functional subset of our semantic competence; (4) protolanguage, as we understand it from the study of pidgin,