learned by heart, may significantly affect the degree of complexity. The upshot of all this is that, whatever definition is used for the measuring, it is highly unlikely to find one that correlates with any degree of cultural sophistication.

As far as syntax is concerned, this lack of correlation between language and culture is utterly incomprehensible if one takes language to be an expression of a culture. If language really is nothing but a convenient construct invented by a community to meet its needs in communication, how are we to explain that high-tech cultures which juggle a multiplicity of abstruse concepts have never elaborated codes any more complex than those in use among tribes of hunter-gatherers? On the other hand, if the grammar of languages comes at least in part from a particular faculty for language, then not only is it not surprising to find that complex languages are used in cultures that we think of as uncomplicated, it is actually what we should expect. If human beings are gifted with abstract cognitive structures which influence the possible design of any sentences they may form, then we must be able to find constructions of equivalent complexity in any language spoken anywhere in the world.

The great diversity of languages might lead one to the conclusion that speaking, using syntax, and abiding by rules of phonetics and conversation are the outcome of a straightforward cultural construction which, generation by generation, has gradually devised an intricately designed and finely wrought instrument to meet a need to communicate. An analogy can be seen in the art of the baroque fugue: as practised in the first half of the eighteenth century, it was the product of a cumulative cultural evolution made possible by the contributions of many musicians, some not very talented, some geniuses, each of whom copied and improved the handiwork of their predecessors. Perhaps it is possible to see language as not very different: every generation makes its own use of the preceding generation's code of communication, improving it as it goes. This process may result in a highly elaborated system: just as fugue has its rules about recapitulation of the principal subject and the counter-subject, its principles governing harmonic transitions, its combinations of notes, and its vocabulary of chords, so language has its rules on phonetics and syntax, its conventions of usage, and its lexicon. This way of conceiving of language does appear to be in accordance with the history of language, insofar as we can reconstruct it, and to give some prima facie consistent explanation of language as having sprung from an invention and then having undergone

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a process of gradual cultural refinement. However, a closer inspection of the reality of human linguistic practice shows that the theory of the cultural creation of language is at variance with a number of facts.

Some of these facts will be presented in the next chapter as part of an argument for the existence of a specific biological basis for language. This argument in no way rules out the importance of culture in the functioning of that faculty. We have just seen that language makes itself manifest through different languages, that they are the emergent result of interactions between people, that they are transformed over time, and that their use is inseparable from immersion in a culture. What must be established now is that there are some aspects of our language behaviour which cannot be mere products of a culture.