faculties, it is no doubt not the one implicit in the idea that language is an outcome of the power of thought.

4.4 That in the beginning was the word

Jacques Monod has a very original point of view, one which inverts the order of things in the interpretation just criticized. He points out that there must have been a very close relation of interdependency between the phylogenetic development of the brain and the development of language:

> One cannot but assume that there was a very close linkage between the special evolution of the central nervous system in humans and the evolution of the unique achievements which are its hallmark, making language not just the product but one of the initial conditions of such evolution. (Monod 1970: 145)

Monod goes on to conjecture a causal link which is the opposite of the one commonly supposed and posits that language was instrumental in the development of the brain:

> In my view, the most plausible hypothesis is that, given the very early appearance of the most rudimentary symbolic communication in our line of descent, because of the radically new possibilities this offered, it was one of the initial 'choices' which determine the whole future of the species by creating a new selection pressure. This selection could only have favoured the development of our linguistic ability itself and consequently the performance of the organ making for that ability, the brain. (Monod 1970: 145)

The same idea is propounded by Bickerton, who sees language as the prime mover of a process which turned our species from an animal into a human:

> While it would be absurd to suppose that language in and of itself provided everything that differentiates us from the apes, language was not only the force that launched us beyond the limits of other species but the necessary (and perhaps even sufficient) prerequisite of both our consciousness and our unique capacities. (Bickerton 1990: 4)

This is an attractive idea, one which is also put forward by Terrence Deacon (Deacon 1997). It lets us see symbolic communication as a kind of new ecological niche which our ancestors, perhaps as far back as the Australopithecines, were the first to discover. Once a species of ape had

discovered how to communicate meanings, however rudimentary, via an open combinatorial system, it is conceivable that there was every scope for such a system to grow in complexity and that the wealth of meanings to be communicated, which is linked to intelligence and the size of the brain, grew correlatively.

However, let us not jump to conclusions. Such a scenario takes for granted several hypotheses which are invalid. The very first of these is the idea that a symbolic combinatorial system is exclusive to human language, which as we saw in Chapter 1 is not the case. Nature seems to have little difficulty in evolving combinatorial systems, as can be seen with the functioning of the immune system or the structure of birdsong. So it is certainly inordinate to see symbolic communication as some kind of all but inaccessible Eldorado. The next stage in this reasoning is the inevitable idea that communication is advantageous for the individuals who go in for it, whether speakers or hearers, this being the only way to explain the setting in motion of a process of selection favourable to communication and, through communication, favourable to the advancement of mental capacities. But the existence of such a mutual benefit, as will be seen in Chapter 16, is anything but self-evident. Thirdly, if such a selection pressure did exist, one may well wonder why it did not result more quickly in the linguistic and intellectual powers of modern human beings, rather than marking time for millions of years at the relatively unimpressive levels of the Australopithecines and *Homo erectus*. So if the Monod scenario were to be convincing, it would need to be considerably reinforced.

Nevertheless, there is still something very attractive in the idea that language lies at the origin of intelligence. If there really was a selection pressure favourable to the communicating by individuals of complex meanings—and that is something that remains to be clarified—, then we could readily accept that it might have indirectly created conditions favourable to a significant increase in intellectual abilities. This would mean human intelligence was mainly oriented towards the invention and understanding of meanings, that the uses it was put to in practical things such as controlling behaviour or planning actions were of secondary importance, and that our disproportionate mental capacities were a by-product so to speak of our aptitude for language. We shall come back to a reconsideration of this view of the primacy of language. Summing up for the moment, we can say that Monod's idea that the increase in