

the female can then fondle it and continue to calm it by gently grooming it.

Clearly, if we turn now to our own species, we might expect to see some manifestation of this basic primate grooming tendency, not only as a simple cleaning pattern, but also in a social context. The big difference, of course, is that we no longer have a luxuriant coat of fur to keep clean. When two naked apes meet and wish to reinforce their friendly relationship they must therefore find some kind of substitute for social grooming. If one studies those situations where, in another primate species, one would expect to see mutual grooming, it is intriguing to observe what happens. To start with it is obvious that smiling has replaced lip-smacking. Its origin as a special infantile signal has already been discussed and we have seen how, in the absence of the clinging response, it became necessary for the baby to have some way of attracting and pacifying the mother. Extended into adult life, the smile is clearly an excellent 'grooming-invitation' substitute. But, having invited friendly contact, what next? Somehow it has to be maintained. Lip-smacking is reinforced by grooming, but what reinforces smiling. True, the smiling response can be repeated and extended in time long after the initial contact, but something else is needed, something more 'occupational'. Some kind of activity, like grooming, has to be borrowed and converted. Simple observations reveal that the plundered source is verbalised vocalisation.

The behaviour pattern of talking evolved originally out of the increased need for the co-operative exchange of information. It grew out of the common and widespread animal phenomenon of non-verbal mood vocalisation. From the typical, inborn mammalian repertoire of grunts and squeals there developed a more complex series of learnt sound signals. These vocal units and their combinations and re-combinations became the basis of what we can call information talking. Unlike the more primitive non-verbal mood signals, this new method of communication enabled our ancestors to refer to objects in the environment and also to the past and the future as well as to the 177