

Nim. By H. S. Terrace. London: Eyre Methuen, 1980. Pp. 303. £6.50.

The eponymous ape, Nim Chimsky, almost certainly did not learn any syntax. This would support the view of the eponymous linguist, Noam Chomsky, that language can be likened to a bodily organ not possessed by apes. However, Terrace has written what is clearly intended to be a popular account of an attempt to demonstrate linguistic competence in a chimpanzee, in which there is considerable dramatic tension between the hoped-for successes and the eventual failure of the project. The dust-cover has a photograph of Nim in a red T-shirt and cut-off jeans, over the subtitle 'A chimpanzee who learned sign-language'. One should not be pedantic about dust-covers, but Terrace begins by saying 'I learned a great deal about how a chimpanzee can communicate through the medium of a human language', and in the first 10 chapters the unsuspecting reader might gain the impression that Nim was a linguistically very able animal. On page 72 he is being disciplined by being told 'I not love you' by his closest companions (the project was conducted by New Yorkers) and by page 83 he was 'combining signs with increasing regularity and the length of his utterances was growing steadily'. We are taken right up to the point where 'tedious statistical analyses' had just provided a solid basis for demonstrating Nim's syntactic abilities (p. 184) before being told that the data are seriously flawed. The analyses were of combinations of gesture-signs made by the animal in the presence of human trainers, who made no attempt to restrain their own gestural prompting. It is therefore not so much a question of subtle 'Clever Hans'-style cues influencing the ape's response sequences, but a full-blown and obvious source of possible artefact.

However, if Nim's multi-sign combinations reflected the promptings of his companions, they do not say much for the imagination of these human trainers, since typical 'four-sign combinations were 'banana Nim banana Nim', 'eat drink eat drink' and 'eat Nim eat Nim'. It seems to me quite probable that the semantic content and syntactic constraints in these messages belong to the chimpanzee as much as to the trainers, but if this is the case it would not be a serious threat to the contention that the construction of sentences in natural human languages requires capacities or proclivities not found in other primates.

The methodological criticisms made here and in other articles by Terrace and his co-workers, against claims that apes trained to make sign-language gestures provide reasonable approximations of human language acquisition, are sound, but since the goal of the project was initially to train Nim Chimsky to 'use language in a humanlike manner', one senses an attempt to make the best of a bad job: in the book Terrace just about manages to have his Skinnerian cake and eat his own words at the same time,

Apart from the theoretical implications of the signing data, or lack of them, the book has interest as a blow-by-blow narrative of who did what and when, throughout the research programme, in some cases the blows are literal—Terrace himself was apparently in the habit of slapping Nim across the face for serious infractions, which he says produced instant terror and tantrums, although when Terrace expressed his anger by throwing the infant chimpanzee against a wall, the animal was apparently unconcerned. The most effective form of discipline was sudden abandonment, this being extremely distressing to the chimpanzee, but signing 'no' or threatening a slap was more routine. This is not really 'all the love that would be given to a human infant', one hopes. There is a chapter on 'Nim's personality', which seems to have been impulsive and affectionate but also bratish: Terrace attributes a degree of emotional instability to the frequent changing of teachers. There were 60 in all over four years, some being longer term than others, but none providing a continuous relationship. The conclusion that more durable affectional bonds might have improved Nim's interest in gesturing seems eminently reasonable.

But the disrupted upbringing did not prevent Nim developing a number of civilized habits. On getting out of bed in the morning he used the toilet, brushed his teeth and put on

his own clothes, at least if a trainer was watching. He had tantrums if not allowed to help with washing up, laundry and cooking. After being accustomed to wearing trousers, he covered his genitals with his hands when they were first taken off in the classroom, at the beginning of his potty training. Perhaps a chimpanzee may know shame even though it may not have syntax. As was found in earlier attempts to induce speech by rearing infant chimpanzees in human families, mimicry of human emotional development and acquisition of non-verbal cognitive skills in infancy was as remarkable as the absence of imitation of speech.

Terrace's book is meant to be informal rather than academic, and there are no references, even in the 50 pages of appendices. But the reporting is thorough, the illustrations (including photographs) are ample, and much detail is given that is not available elsewhere. It is a valuable record of human and chimpanzee failings.

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