HISTORICAL NOTE

TEACHING SIGN LANGUAGE TO A CHIMPANZEE:
SOME HISTORICAL REFERENCES

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When the Gardners reported on their work with Washoe (Gardner & Gardner, 1969), psychologists were struck by their ingenuity in thinking to teach the American Sign Language for the deaf to a chimpanzee. After all, two widely quoted studies had shown that chimpanzees were unable to learn human speech (Hayes & Hayes, 1951; Kellogg & Kellogg, 1933).

However, like most good ideas, this one has fascinating antecedents. Samuel Pepys wrote the following in his diary for August 24, 1661:

At the office in the morning and did business. By and by we are called to Sir W. Battens to see the strange creature that Captain Holmes hath brought with him from Guiny; it is a great baboone, but so much like a man in most things, that (though they say there is a Species of them) yet I cannot believe but that it is a monster got of a man and she-baboone. I do believe it already understands much english; and I am of the mind it might be taught to speak or make signs. (Latham & Matthews, 1970, p. 160)

In 1747, La Mettrie proposed that one familiar with teaching the deaf be employed to teach an anthropoid ape to speak. He also suggested that such teaching should begin with signs (see *Journal of the Experimental Analysis of Behavior*, 1978, 29, 504 for the proposal).

In an 1891 story entitled "Bertran and Bimi," Rudyard Kipling has an old seaman telling a story about an orang-utan named Bimi and an animal trainer, Bertran:

Und dot man, who was king of beasts-tamer men, he had in der house shust such anoder as dot devil-animal in der cage—a great orang-outang dot thought he was a man. He haf found him when he was a child—der orang-outang—and he was child und brother und opera comique all round to Bertran. He had his room in dot house—not a cage, but a room—mit a bed und sheets, und he would go to bed und get up in der morning und smoke his cigar und eat his dinner mit Bertran, und walk mit him hand in hand, which was most horrible. . . . Den I

felt at der back of my neck der fingers of Bimi. Mein Gott! I tell you dot he talked through dose fingers. It was der deaf-and-dumb alphabet all complete. He slide his hairy arm round my neck, und he tilt up my chin und look into my face, shust to see if I understood his talk so well as he understood mine. (Kipling, 1891/1907, pp. 338-340)

Reacting to the conspicuous lack of success in teaching an orang-utan to vocalize reported by Furness (1916), Robert M. Yerkes wrote:

Perhaps the chief reason for the ape's failure to develop speech is the absence of a tendency to imitate sounds. Seeing strongly stimulates to imitation; but hearing seems to have no such effect. I am inclined to conclude from the various evidences that the great apes have plenty to talk about, but no gift for the use of sounds to represent individual, as contrasted with racial, feelings or ideas. Perhaps they can be taught to use their fingers, somewhat as does the deaf and dumb person, and thus helped to acquire a simple, nonvocal, "sign language." (Yerkes, 1925, p. 180)

Yerkes and Nissen are reported to have even attempted "some low-level sign-related experiments with chimpanzees in 1939, with little result," and thereby discontinued the study (Hewes, 1978, p. 22).

Paget (1930), reacting to Yerkes, wrote the following:

The most direct way to carry out Professor Yerkes' suggestion would be to put a young chimpanzee (for example) under the care of a deaf mute, with instructions to the keeper to "talk" to the animal freely by gesture, and to encourage it to imitate him, and to ask in sign-language for what it wanted. Such an experiment—given a sympathetic deaf-mute teacher, a tractable young chimpanzee pupil—with adequate intelligence on both sides—would seem very likely to succeed. (pp. 129-130)

Finally, chimpanzees were observed using signs by Hayes and Hayes (1951) and Kellogg and Kellogg (1933; Kellogg, 1969). The Kelloggs' chimpanzee, Gua, had signs for defecation and urination while the Hayes's chimpanzee, Vikki, understood and used gestures without explicit training. The use of sign language with Vikki was even considered and rejected by the Hayes in 1952 (Hewes, 1978).

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Although such an important idea appeared recurrently over a 300-year period, only the Gardners had the foresight to determine that it was worth a full scale, empirical investigation. More credit to them.

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