

BOOK REVIEWS

Ordinary Chimpanzees

Review of *The Chimpanzees of Gombe: Patterns of Behavior* by Jane Goodall. Cambridge, The Belknap Press of Harvard University Press, 1986, 673 pp, \$30.00 cloth.

In 1971, a distinguished biologist told me what he thought of Jane Goodall's plans to continue working at Gombe. "Absurd," he said; "chimpanzees have been studied now." I trust that he blushes to see *The Chimpanzees of Gombe*. Topic by topic ("Communication," "Feeding," "Sexual Behavior," "Territoriality," . . .) Goodall lays out the results of 25 years of observing 85 chimpanzees. Beautifully written and illustrated with photographs of the highest quality, her book conveys the extraordinary dramas of ordinary life among ordinary chimpanzees. In doing so she shows why, if primate behavior is worth studying at all, it is worth doing patiently.

The need for patience is obvious for any demographic studies of a shy, long-lived animal, and even this longest-of-all animal studies is still beset with unanswered questions. For example, Goodall still has little clue to the factors mediating reproductive success among females or males. She points openly to such shortcomings, but they pale beside the richness of her synthesis. She covers every obvious aspect of behavior and ecology in substantial detail. She shows how simple attributes of the species such as patterns of association or rates of aggression vary between years in relation to demographic, environmental, or sociological differences. She stresses how her own impressions changed as she first learned about unexpected behaviors such as infanticide, cannibalism, sexual consortships, and intercommunity raiding. She sets social interactions firmly in the context of social relationships; and her descriptions of both take full advantage of the detailed history of individual behavior that Goodall has maintained since 1960.

Goodall's persistent concern with individual differences has sometimes been derided as the fascination of a romantic. True, she has never closely followed changing intellectual fashions. But no one need be cynical about her interests nowadays, with theory focusing increasingly on the evolution of alternative strategies. The individuality of chimpanzees and other intelligent species presents itself as the extreme end of a cline of variability in nonhuman behavioral adaptability, and Goodall's steady emphasis of its importance makes her a pioneer. Now we find her asking questions about the origins of personality differences: In a species in which the daily behavior of most males is dominated by their urge to compete for dominance, why do some males appear uninterested in gaining rank? Did a few key interactions scare them when they were young? There are only hints in this book, but they are enough to raise excitement at the thought of her promised next volume, on development. It is the only aspect of her work that is not covered in detail here.

The book opens with a history of chimpanzee studies in the wild and captivity. Goodall knows the captive literature well, and she uses it to provide her main theoretical framework by describing the evidence for highly developed cognitive abilities in chimpanzees and asking why they occur. To answer this, she turns to Africa. Two chapters introduce the study site and research methods, and the next 14 provide the heart of the book from "Demographic Changes" through "Aggression" and "Friendly Behavior" to "Object Manipulation."

These data chapters are impressive in a number of ways. They are gift-wrapped: They come illustrated not only with tabulated data but also with "word pictures," anecdotes that accurately convey the spirit of her observations. They are exceedingly clear, containing careful definitions and a number of original and helpful concepts with which to handle the enormous diversity of data she is dealing with. Comparisons with other studies of chimpanzees are extensive. Most remarkably, Goodall maintains an interest in proximate and ultimate mechanisms throughout and integrates her discussion with a wide literature.

Comparisons with other species are made occasionally, but Goodall makes no attempt to be systematic. This is sometimes disappointing: For instance, it means that the conclusion fails to go very far. The final chapter asks what chimpanzees do with their intelligence. They remember food sites accurately, they invent cultural traditions, they manipulate each other expertly; perhaps they use their imagination to practice social skills in their heads, and maybe the clever males can use their brains to achieve what others get through high rank (though in fact, the two males that seemed most intelligent occupied the alpha rank longer than any others). In brief, skills shown in captivity may easily be very important in the wild. But we get little sense of exactly how important they are, or how much more important they are in chimpanzees than in other species. Is it too much to hope that Goodall will one day write *The Baboons of Gombe?* (And what about *The Red Colobus of Gombe?* Or *The Bushpigs of Gombe?* Or . . .)

The lack of a satisfying conclusion is no problem. This book is so rich that it needs no resounding finale. It is classic ethnography of the highest caliber. Ethnography is unfashionable among academics who have to impress each other with their ability to solve problems, but Goodall has no such obligations to be clever. She can afford, instead, to be curious. In a gray future when the forests are gone and chimpanzees, like other large animals, live only in captivity or egg banks, her work will surely stand as an extraordinary gift. May it be an encouragement to us all, to think of field primatology as the portrayal of nature as well as the art of the soluble.

The ethnography works partly because Goodall is not trying to push a particular story and partly because it is presented with such care. Statistical tests are admittedly few, and in many analyses only a few years of data are examined. But Goodall readily points out uncertainties in the data or conclusions and thereby makes the reader confident of her other claims. Students will enjoy opportunities to analyze tallied data further. Field methods are described in great detail, including an important account of how Tanzanian assistants are trained and how their work is checked. These men have made an extraordinary contribution to the Gombe study, as Goodall is the first to say. There are certainly questions that could have been answered in more depth, had she but world enough and time. But how can we carp at Goodall's occasional failures to perform as complete and statistically valid analyses as would satisfy a Ph.D. examiner, when this book contains enough material for a dozen Ph.D.s? The reality of today's world is that it is very difficult to keep a long-term study going. To do so independently, in circumstances fraught with politi-

cal and economic problems, and thereby to give herself the freedom to work as effectively as she has, is a remarkable achievement. At its splendidly low price, this book should be bought by every primatologist . . . and most of their friends.

Richard Wrangham
Department of Anthropology
University of Michigan, Ann Arbor
Ann Arbor, Michigan