Of Mice (or Monkeys) and Men

Understanding human existence requires us to understand what it means to be social animals. This insight, in turn, requires a comparative perspective. We must view the human experience across cultures and time, and in different social and environmental contexts. And crucially, we must study non-human species that are inherently social.

Scientific studies have shown that although species display different types of social organization, the basic rules are identical. Our understanding of human behavior has thus been greatly advanced by research on non-human species. Through support of individual scholars and sponsorship of several groups, the Center has promoted the scientific examination of insects, birds, and non-human mammals.

As a result, Center Fellows have made prominent contributions to our understanding of the social organization of a wide variety of species, including ants, wasps, bees, jays, blackbirds, cats, dogs, horses, sea otters, dolphins, whales, monkeys, chimpanzees, baboons, and apes. Of these species, the study of non-human primates and cetaceans has been the most critical. These species are quintessentially social, and their biological proximity to humans enables us to understand the evolutionary basis of many aspects of human behavior and social organization.

Influential individual contributions
Insect biologist Deborah Gordon of Stanford University has twice been a Fellow, first in 1998 and again in 2002. On both occasions she devoted her fellowship period to publishing results of her ongoing study of the social organization of work among colonies of harvester ants. Her research resulted in publication of a prize-winning book, *Ants at Work*.

Biologist Stephen Emlen of Cornell spent the 1981-82 academic year as a Fellow completing analysis of a voluminous data base of six years’ results from a field study of the sociobiology of an African bird called the White Fronted Bee-Eater.

Anthropologist Donald Melnick of Columbia University, a Fellow in 1987-88, studies patterns of aggression, dominance, and the distribution of paternity in wild rhesus monkeys. He also writes on the evolution of sociality in mammals.
University of Chicago primatologist Jeanne Altmann, who studies savannah baboons in southern Kenya, spent the 1990-91 academic year working on the sources and consequences of variability in the life histories of baboons. She also worked on a related project exploring the relationship of differences in age, sex, social status, and nutritional resource base to differences in morphological and physiological characteristics among baboons.

The following Fellowship year, psycholinguist Laura Ann Petitto of McGill University continued her work on genetic and environmental factors that give rise to human language acquisition. Petitto became famous early in her career by working on a project in which a team of researchers attempted to teach sign language to an infant chimpanzee named Nim Chimpsky.

Anthropologist Kristen Hawkes of the University of Utah spent the 2002-03 fellowship year analyzing her data on aging among chimpanzees. She is working on a book that analyzes similarities and differences in the aging patterns of humans and chimpanzees.

**Collaborative efforts**

The Center has sponsored three noteworthy special projects involving non-human primates and cetaceans. All were devoted to synthesizing research about the social behavior of species such as chimpanzees, gorillas, baboons, great apes, vervet and rhesus monkeys, bottlenose dolphins, and whales; and on setting the research agenda for new generations of primatologists and cetaceanists.

The first of these groups took up residency during the 1962-63 fellowship year. Five scientists who had studied different species of primates came together to summarize and synthesize what was known about chimpanzees, rhesus monkeys, gorillas, and great apes, and to map out future field research on these and related species. The group included such important early primate researchers as biologist George Schaller, psychologist David Hamburg, and anthropologists Irvin DeVore and Sherwood Washburn. They devoted the year to compiling the first encyclopedic inventory of knowledge about non-human primates based primarily on observation studies in natural field settings.

The resulting book, *Primate Behavior*, set the agenda for research on the topic for the next twenty years. This project contributed greatly to establishing the field of primate studies in American universities. It stimulated ambitious projects by a new generation of scholars who conducted pioneering research on a wide range of non-human primates.

These young researchers included anthropologist and psychologist Barbara Smuts, whose specialty is field studies of sex and friendship patterns among baboons; anthropologists Dorothy Cheney and Robert Seyfarth, long-time collaborators on colonies of vervet monkeys at a field station in Kenya; biologist Thomas Struhsaker, director of a primate field research station in the Kibale Forest of West Uganda; and anthropologist Richard Wrangham, who has exhaustively studied two species of chimpanzees in Africa. These five scholars came to the Center during the 1983-84 fellowship year to write an encyclopedic reference book on the state of primate behavior research and its future directions. Titled *Primate Societies*, their 40-chapter edited volume lays out in great detail what field studies of wild primates tell us about the evolution of diversity, the social ecology of various primate colonies, the nature and dynamics of group life among different species of non-hu-
human primates, evidence of intelligence and resulting patterns of communication among them, and a host of related topics. In the concluding section, the five authors present their blueprint for future primate research, a plan that has in turn been taken up by the next generation of field researchers.

During 1994-95, three cetaceanists, biologists Richard Connor and Peter Tyack and psychologist Janet Mann, spent the year writing *Cetacean Societies*. Their work focused on two types of whales and two types of dolphins. The group considered such issues as the costs and benefits of group living among the species; patterns of altruism among non-relatives; brain size and evolution in whales and dolphins; and the influence of female attractiveness on male reproductive strategies in bottlenose dolphins.

The scholars concluded that marine mammals provide fascinating data for comparative study of the evolution of social relationships. In their year-end Center report they wrote, “Many of these studies initially were motivated by questions about the evolution of human behavior, but over time they made major contributions in developing new ways to study social relations and to compare them across species.”

We remain firmly committed to supporting work in the important area of animal behavior. At present we are endeavoring to secure funding to organize an extended seminar that would bring together the newest generation of non-human primate researchers to update and extend the work of the second generation scholars who were in residence during 1983-84. If we are successful, the Center’s role in advancing a critical branch of research about social behavior will be secure for another generation.
Bibliography

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