

Contributions of Sarah Blaffer Hrdy

Some of us call ourselves primatologists, even though the legitimacy of taxon-based sciences such as ichthyology, ornithology, and entomology is sometimes questioned because they rely on concepts and theory from broader fields such as evolutionary biology or behavioral ecology. But those who take a taxon-based approach, as primatologists do, recognize that the study of closely related organisms can yield important insights about the workings of evolution and the process of adaptation. Primatologists have a particularly compelling justification for their taxonomic myopia: phylogeny matters, and knowledge of primate behavior and biology can shed light on the evolution of our own species.

One might, therefore, naively expect that social scientists, particularly anthropologists, would have embraced the study of primates, since field studies of free-ranging primates were pioneered in the middle of the twentieth century. We all know this did not happen in anthropology; instead, biological and cultural anthropology grew further and further apart, sometimes splitting into separate departments. Sarah Blaffer Hrdy was one of the rare anthropologists who turned from cultural anthropology to primatology. She has always been explicit about why she did this: to help generate general theories that might help us understand the human condition.

From the beginning of her primatological career and her early field studies of Hanuman langurs in India,¹ Sarah made important empirical and conceptual contributions to our understanding of reproductive strategies in primates. She also challenged existing views, particularly our views of females. Her focus on

female strategies was a welcome antidote to the focus on males that predominated when she began her work. Moreover, her work challenged conventional scientific and cultural assumptions about the nature of female sexuality and behavior.

Her studies of langurs provided empirical inspiration for the sexually selected infanticide hypothesis,² which was initially controversial, but has been convincingly validated in primates and a range of other taxa.³ Although this hypothesis specifies the conditions under which males benefit from killing infants, Sarah realized from the outset that females were not simply passive victims of male strategies. She hypothesized that females would develop effective counterstrategies, especially opportunistic female-initiated promiscuity, to reduce the risk of infanticide.⁴ This work brought her to a new view of female sexuality among animals. Indeed, she played an important role in overturning the stereotype of the coy, passive female, a stereotype that was partly based on Bateman's famous fruit fly experiments. Her work forced sexual-selection theorists to build new models of sexual conflict and female mate choice.

Her work on langurs also provided insight about the nature of relationships among females and the complex dynamics that shape their interactions. She was among the first to suggest that allo-maternal involvement might not always be as benign and caring as the popular label "aunting" implied.⁵ In *The Woman that Never Evolved*⁶ she explored the idea that competition might be as important in shaping relationships among females as it is among males. Again, this view of females contradicted widely held views and gave rise to more thoughtful and balanced considerations of how females

respond to ecological and social challenges.

From the beginning of her career, Sarah has been interested in what other primates tell us about ourselves, and eventually she shifted the focus of her work from nonhuman primates to modern humans. In *Mother Nature*⁷ she brought together ideas from evolutionary theory, data from primate behavioral ecology, and the rich cultural history of human parenting. In this book, she began to explore the parallels between her early observations of allomaternal care in hanuman langurs and growing evidence that human mothers depend on others, including grandmothers and partners, to rear their offspring successfully. By the time *Mothers and Others* appeared in 2009, her exploration had developed into the recognition that humans are cooperative breeders, albeit of the unusual 'plural' type, in which multiple females of the same social unit reproduce. In *Mothers and Others*, she charted the far-reaching consequences of this unusual rearing system for human social and cognitive evolution. In particular, she argued that selection favored cognitive abilities that helped infants elicit care from selectively nurturing mothers and even more discriminating allomothers. In sum, Sarah has shown that intimate and broad knowledge of primate and human behavior provides a strong foundation for the investigation of human behavioral evolution.

Throughout her career, Sarah has been acutely aware of the sometimes uneasy relationship between science and ideology. She first encountered controversy with her hypothesis that infanticide is a sexually selected strategy. This notion met resistance from those who were convinced that langurs live in peaceful, self-

regulating societies and that infanticide is a pathological response to overcrowding.

Many academics remain unreceptive to the idea that modern human behavior is influenced by evolutionary processes and have been fiercely critical of Sarah's efforts to apply evolutionary reasoning to contemporary human behavior. Moreover, evolutionary perspectives that seem to emphasize male mating effort and female parenting effort are unappealing to many feminists who would prefer there to be no major differences between the sexes. Sarah's work does not fit neatly into an ideological pigeonhole. Some evolutionary biologists have accused her of being a feminist and some feminists have accused her of being a sociobiologist but, in the end, she is just a thoughtful scientist: "If biases were there in the first place because of sexism, and a feminist perspective helped to identify them, it is still science that comes out ahead when they are corrected."⁶

Sarah has also had an important part in changing the way that contemporary scientists communicate

about their work. When Sarah began her career, it was conventional for scientists to write for their peers, not the general public. Those that ignored this convention jeopardized their reputations as serious scholars. But Hrdy has done much to change this mindset. From the beginning, she realized that the findings of evolutionary biologists and primatologists were of interest to a wider audience and was determined to extend the audience for her writing beyond academia. She has set a high standard for popular science writing. Her popular books and articles are meticulously researched and elaborately footnoted, crammed full of interesting ideas and fascinating facts, and written with the grace of a novelist.

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Published online in Wiley Online Library
(wileyonlinelibrary.com).
DOI: 10.1002/evan.21372