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FEMALES UP FRONT

Is it possible that the women's movement has changed the story of human evolution? Until recently, the evolution of "man" was discovered, analyzed, and described by male scientists who viewed male hunting, male tool-making, male alliance and male group defense as key elements binding early human societies together and explaining their emergence. As Jane Lancaster states in the Summer 1982 *F.R.O.M.* newsletter (vol.4, no.2), few scientists "troubled to reconstruct (female) activities beyond sitting before the cave, tending the fire, and nursing infants." Lancaster describes a study by Lorraine Heidecker (Calif. State Univ, Sacramento) analyzing illustrations used in current introductory anthropology textbooks. Only seven pictures were found showing women as "active, central, productive, contributing part-

ners in hominid activities during prehistory." Only 15% of the human figures were recognizably female and in only 25% of the pictures was a female the central or dominant figure. Stereotypic representations predominated: women shown passively watching children; tending a fire; or providing an audience for male activities such as burial rituals, tool making, or story telling. "Such pictorial reconstructions of early hominid activities unconsciously represent the traditional script of human evolution, stories which still circulate among us." But, as Lancaster continues, "The decade of the 1980's will clearly witness a major change in our reconstructions of the past, partly in response to the demands of the feminist movement and a trend in redefining sex roles in modern society."

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Three recently published studies by women anthropologists have already begun to shift views of our past: Nancy Makepeace Tanner, On Becoming Human (New York: Cambridge Univ. Press, 1981); Sarah Blaffer Hrdy, The Woman That Never Evolved (Harvard Univ. Press, 1981); and Helen E. Fisher, The Sex Contract: The Evolution of Human Behavior (New York: Wm. Morrow & Co., 1982). All three books emphasize the long neglected importance of the female contribution to the emergence of human behavior and all three add to our understanding of female sexuality and sexual asymmetry. Each is well written, based on recent scientific research, and provides a new and provocative interpretation of the process by which males and females first became human beings.

Tanner's On Becoming Human provides a feminist's reconstructionist model for the transition from ancestral ape to Australopithecine. Central to this transition was the innovative shift from individual foraging to the gathering of plant food (and small animals) by the females and the sharing of that food with their attached offspring. Hence the earliest tools were most likely those made and used by females to obtain plant food and make tough food edible. In addition, female selection of male sex partners similar to themselves -- sociable, intelligent, sharing, and protective -- was a key to becoming human. In this new look at our past, it is female and not male behavior which pushed our species across the crucial boundary between ancestral ape and early human.

Hrdy focuses her book, The Woman That Never Evolved, on nonhuman primate behavior, particularly monkeys, to demonstrate the wide diversity in primate social structure and behavior. Hrdy asserts that different reproductive strategies and differential investment in offspring created powerful differences between males and females. Contrary to the traditional view that females are the passive recipients of the outcome of male/male competition, and mere consumers of male paternal investment, Hrdy argues

that females have strong reproductive strategies of their own. For example, she maintains that certain aspects of female sexuality -- orgasm, concealed ovulation and year-round sexual receptivity -- are adaptations to increase the female's ability to choose males with superior genes. A female enhances the survival of her offspring by offering a number of consorts the probability of paternity thereby increasing male investment. Observations of primate behavior demonstrate that most female primates are more assertive and sexually active than previously supposed, ready to engage in sexual activity throughout the monthly cycle and with more partners than necessary for conception. Contrary to popular beliefs, sexually passive, noncompetitive, and meek females never evolved!

Though Hrdy recognizes the biological closeness of humans and apes, she concentrates on her own research with langurs, and on other monkey societies which exhibit a wide variation in social systems, such as monogamy and polygyny. According to Hrdy, primate social systems are dictated by how females space themselves and by the hierarchies they establish which are determined by the availability and utilization of resources. Thus female access to resources and the ability to protect offspring, both necessary for the successful development of infants, lead to female status. Competition and cooperation among females is seen as the key to the complex social networks of primate societies.

Fisher in The Sex Contract stresses the importance of female sexuality in the evolution of human behavior. Bipedalism created a turning point in the relationship between the sexes making it more difficult for females carrying infants to catch their own meat, join small hunting parties, and flee from danger. According to Fisher, it was at this time in our evolutionary history that females were forced to make a sex contract with males: in exchange for sex and vegetables, the

males provided meat and protection.

Fisher emphasizes the important role natural selection played in the evolution of human social life. Through recreations of the daily life of our ancestors at different evolutionary stages, Fisher reveals how selection favored bipedalism, division of labor, pair-bonding, and certain types of personalities with an "innate disposition to share, cooperate, divide work, and behave altruistically." Fisher bases her interpretation primarily on fossil evidence, primate studies, and human sexual behavior research.

All three authors describe the process by which human behavior evolved. Tanner's model has "three critical stages": a primate population directly ancestral to the hominid line (the apes); a transitional hominid population; and a population of Australopithecines. Tanner maintains that transitional hominids established a diurnal omnivorous adaptation to the savanna, not in competition with the herbivores or carnivores already present. It was at this time, eight to four million years ago, that gathering plants with tools for later consumption was adopted, a strategy compatible with extended infant dependency. Tool use was a female response to the need for more efficient methods of obtaining and preparing plant food. Males, she contends, were "likely still foragers", eating available food as they roamed. Bipedal locomotion was selected for since savanna life created a need for greater mobility and for effective carrying of infants, tools, and gathered food.

According to Hrdy, though males tend to dominate in most primate societies, females enjoy considerable status and exhibit powerful competitive strategies for access to natural resources and sexual selection. Among monogamous species (i.e. lemurs, marmosets, gibbons), females tend to have higher status than in polygynous species. Males spend more time grooming females, and females frequently initiate moves to new feeding locations, and are given priority to food sources.

Hrdy states that female choice may be a factor in monogamy where "any prospect of polygyny would be precluded by fierce antagonism among females of breeding age." In most monogamous societies rival females are physically excluded from the territory and there tends to be only one breeding female in each territorial group, with suppression of ovulation in subordinate females. In many polygynous species (i.e. squirrel monkey, ring-tailed lemur), males tend to defer to females avoiding great expenditure of energy and physical risks except during a short breeding season.

Research on monogamous primates weakens the argument that high levels of sexual activity for females encourages pair-bonding and therefore an increase in paternal investment. Siamangs, gibbons, and indrii, for instance, copulate infrequently during breeding periods.

Hrdy concludes that characteristics of females in polygynous societies, such as aggressive readiness to engage in liaisons with multiple but selected males (which is the case for our close cousins, the chimpanzee), suggests that similar behavior was representative of prehomimid females. According to Hrdy, it is the expectation of female "promiscuity" that has had profound effect on human cultural institutions to ensure the male's confidence in paternity.

While Hrdy asserts that our protohominid female ancestors were sexually "promiscuous" to ensure multiple male investment in their offspring, Fisher argues that continuously receptive and highly sexed females benefitted by receiving not only male protection but morsels of meat. The exchange of vegetables and sex for meat and protection led to the "sexual revolution" from which

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Fisher sees the origins of bonding and the development of language, spirituality, and more complex technology and social structure. Though Fisher is in agreement with Tanner that there is no evidence of big-game hunting among the early hominids, her stress on female dependency on meat and support from males would probably lead to Tanner's criticism that she relegates our earliest hominid female ancestors to a passive role. Rather, Tanner asserts, females as well as males were intelligent and active participants. Hrdy would agree.

Theories regarding evolutionary behavior generate debate for the obvious reason that there is still so much unknown. Each of these authors has attempted to fill in missing "female" links based on evidence from primate studies, fossils, archeological investigation, genetics, molecular biology, hunting/gathering societies, and cross-cultural research. Fisher offers a lively and well-argued reconstruction which is a bit over-simplified. Hrdy's numerous examples of primate social behavior and social systems make for interesting reading but can create confusion as one tries to find a logical thread of argument explaining the emergence of human social systems. Tanner's version of the emergence of human behavior is very persuasive but gives little credit to males for their part in the development of becoming human.

All three books are well worth reading and comparing. They provide "food for thought" in their effort to explain the universal prevalence of male dominance and female submission, and the role of female sexuality in our ancient past.

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