



Conceptual Issues in Evolutionary Biology

THIRD EDITION

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7 Empathy, Polyandry, and the Myth of the Coy Female

Sarah Blaffer Hrdy

Sexual selection theory (Bateman, 1948; Darwin, 1871; Trivers, 1972; Williams, 1966) is one of the crown jewels of the Darwinian approach basic to sociobiology. Yet so scintillating were some of the revelations offered by the theory, that they tended to outshine the rest of the wreath and to impede comprehension of the total design, in this instance, the intertwined, sometimes opposing, strategies and counter strategies of both sexes which together compose the social and reproductive behavior of the species. (Hrdy & Williams, 1983, p. 7)

But why did that happen, and how? And what processes led to the current destabilization of the model and reformulation of our thinking about sexual selection?

Introduction

For over three decades, a handful of partially true assumptions were permitted to shape the construction of general evolutionary theories about sexual selection. These theories of sexual selection presupposed the existence of a highly discriminating, sexually “coy,” female who was courted by sexually indiscriminating males. Assumptions underlying these stereotypes included, first, the idea that relative male contribution to offspring was small, second, that little variance exists in female reproductive success compared to the very great variance among males, and third, that fertilization was the only reason for females to mate. While appropriate in some contexts, these conditions are far from universal. Uncritical acceptance of such assumptions has greatly hampered our understanding of animal breeding systems particularly, perhaps, those of primates.

These assumptions have only begun to be revised in the last decade, as researchers began to consider the way Darwinian selection operates on females as well as males. This paper traces the shift away from the stereotype of female as sexually passive and discriminating to current models in which females are seen to play an active role in managing sexual consortships that go beyond traditional “mate choice.” It is impossible to understand this history without taking into account the background, including

From R. Bleier (ed.), *Feminist Approaches to Science* (New York: Pergamon Press, 1986), pp. 119–146.

8 Pre-theoretical Assumptions in Evolutionary Explanations of Female Sexuality

Elisabeth Lloyd

My contribution to this Symposium focuses on the links between sexuality and reproduction from the evolutionary point of view.¹ The relation between women's sexuality and reproduction is particularly important because of a vital intersection between politics and biology—feminists have noticed, for more than a century, that women's identity is often defined in terms of her reproductive capacity. More recently, in the second wave of the feminist movement in the United States, debates about women's identity have explicitly included sexuality; much feminist argument in the late 1960's and early 1970's involved an attempt to separate out an autonomous female sexuality from women's reproductive functions.

It is especially relevant, then, to examine biological arguments, particularly evolutionary arguments, to see what they say about *whether* and *how* women's sexuality is related to reproduction. We shall find that many evolutionary arguments seem to support the direct linking of female sexuality and reproduction. Yet I will argue that this support is not well-grounded. In fact, I think evolutionary explanations of female sexuality exemplify how social beliefs and social agendas can influence very *basic* biological explanations of fundamental physiological processes. In this paper, I shall spend some time spelling out a few examples in which assumptions about the close link between reproduction and sexuality yield misleading results, then I shall conclude with a discussion of the consequences of this case study for issues in the philosophy of science.

The fundamental problem is that it is simply *assumed* that every aspect of female sexuality should be explained in terms of reproductive functions. But there is quite a bit of biological evidence that this is an empirically incorrect assumption to make. This raises the question of why autonomous female sexuality, distinct from reproductive functions, got left out of these explanations. I shall ultimately conclude that social context is playing a large and unacknowledged role in the practice of this science.

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Feminism and Evolutionary Biology

Boundaries,
Intersections,
and Frontiers

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Sexual Dialectics, Sexual Selection, and Variation in Reproductive Behavior

Patricia Adair Gowaty

Evolutionary biologists are increasingly enamored with emerging “female perspectives” on social behavior. Yet, at this writing, to my mind, despite the pioneering work of Hrdy (e.g., 1981, 1986), we still have a way to go for full incorporation of proactive female agency in our hypotheses about social behavior. Here I outline some of the problems with our basic theories as I see them and suggest one alternative perspective that places females and their interests in the center of discussions about the evolution of social behavior. At the outset, I think it worth noting that I am not claiming that the ideas derived from the alternatives I see are cure-alls for our general theoretical and empirical failings in regard to females. I think these new perspectives are useful because the focus on females does suggest novel empirical approaches to investigations of the selective forces favoring this behavior or that. If this view has merit, more attention to variation among females will result. I see this effort as an ongoing process, and I look forward to the day when gender-neutral notions characterize our theories and empirical investigations. In this chapter I have tried to suggest gender-neutral ways to conceptualize some of the ideas that have appeared to short-shift females in the past, and some of the newer ideas that have enamored me about females and female agency.

Part I. Sexual Selection Left Females Out

“Females That Never Evolved”

In modern evolutionary studies of social behavior, the dominating theoretical paradigm remains sexual selection (Andersson, 1994; Darwin, 1871). Sexual selection was defined by Darwin as a subset of natural selection having to do with