## WOMEN AT THE "SIGHT" OF EVOLUTION

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A Review of the Book

Evolution 's Empress. Darwinian perspectives on the nature of women, Maryanne L. Fisher, Justin R. Garia and Rosemarie Sokol Chang. 2013. Oxford University Press, New York. 485 pages. ISBN 978-0-19-989274-7 (Hardback, \$85.00).

As suggested by its title, Evolution's Empress (EE) is a fascinating academic account of women issues that may have been overlooked at the establishment of Evolutionary Psychology (EP) in the last decades, which now reach a critical stance of dialogue between largely opposite views of Human Nature: feminism -traditionally concerned with the nurturing origin of women issues, and evolutionary theory -emphasizing nature as source of female characteristics.

Beginning from the foreword by Sarah B. Hrdy, the topic captivates the reader with a quite provoking idea such as the "reconciliation" of feminism and evolutionary theory, leading to "a more accurate picture encompassing the evolutionary interests and perspectives of females as well as males, along with selection pressures across the life course beginning in utero and continuing long after women cease to be fertile" (p. xvi). By analyzing the active role of women in evolution by natural selection, the book promotes a conscious dialogue between both academic fields. The final goal is a need of paying equal attention to selection pressures acting on males as well as females, and furthermore breaking away from the obsolete notion that women are passive players in the evolutionary "arms race" (as it was first indicated by Darwin, 1875).

Clearly, EE is targeted at scholars concerned with modernizing the classical evolutionary view of sex differences based in sexual selection and parental investment theories (Trivers, 1972; Symons, 1979), incorporating more recent data on female alliances, intrasexual competition, and life history perspectives. All of which offer a more precise account of the basis of sex differences; or at least bring about issues to address empirically within the classical approach. And it is the recognition of the origin of sex differences emerging from women's biological endowment or rather origination from

her socialization throughout ontogeny which has been at the center of the debate between feminism and EP, and from where the different authors of the chapters build on their specific topics.

The book is organized in five sections which congregate scholars that seriously consider and progress on how evolutionary theory can address women issues. The first part covers sex roles, competition, and cooperation. The second mothers and parenting; thirdly are health and reproduction; the fourth section is on mating and communication; and at last are the new disciplinary frontiers opened by the merging of evolutionary and feminism perspectives. From this overall structure, each of the 22 chapters of EE considers in depth the initial suggestion "to generate discussion and initiate what we hope will be a turning point for both evolutionary-minded scholars and those working within a feminist paradigm" (p.7).

Thus, the first section unfolds with an initial chapter placing women at the center of evolutionary theory, recognizing their active role in mate selection and intrasexual competition, which in the case of our species goes beyond physical aggression. Women competition is recognized to be targeted at social aggression rather than in risky strategies of physical competition when pregnancy and early childbearing are at stake (Campbell, 2004). Maryanne Fisher builds on Buss & Schmitt (1993) recognition of short-term and long-term mating motivations to define the kinds of competition women may engage in: the former would be oriented at self-promotion enhancing attractiveness and sexuality, while the latter would be centered on parenting skills and fidelity. On the second chapter, a well-articulated comparative view of female aggression as means to attain status for them and their offspring, is developed and evidenced by Laurette Liesen. Next, Liza Moscovice analyzes the adaptive role of social bonds in female primates, documenting the importance of nurturance, empathy, and altruism in women compared to men; and sustaining that female social skills are particular means of gaining fitness. In the fourth chapter, is were readers may begin to see the feminist side of the debate started, criticizing Bateman-Trivers hypothesis of women's differential parental investment as source of sex differences in sex roles, which is denominated the "cost of reproduction" approach. Here Patricia Gotaway opposes this prevailing view, bringing evidence of women not being the "choosy sex" at the center of attention, and proposing a model in which "sex roles are made up of adaptively flexible behavior and physiology serving the fitness interests of individuals in real time" (p.92). I am not convinced about how this behavior would eventually lead to selection and sex-differentiated roles, although the author does advance a "Switch Point Theorem" to account for the development of lifetime fitness, based on the notion that epigenetics and individual adaptive flexibility are the forces of "the social and ecological environments in which individuals find themselves [which] induce choosy and indiscriminate behavior" (p. 93).

Opening the second part of EE the reader will be fixated on the female role in evolution from a modern but evolutionary informed point of view. This section begins by the proposal that mothering is a stable evolutionary strategy that promotes cultural persistence and prevents change. Kathryn Coe and Craig Palmer build their case from cooking and story-telling, which support the idea that "traditions implied the replication of behaviors that were evolutionarily successful in past generations" (p. 120) and the "preservation of certain cultural behaviors was necessary for the formation of the extended networks of cooperating kin that were crucial to the recent evolutionary success of our species" (p. 121). In chapter six, Nicole Cameron and Justin Garcia direct attention to maternal environmental influences as the source of adaptation and life history factors that directly effects offspring development and overall fitness. Next, the evolution of flexible parenting continues with Leslie Newson and Peter Richerson addressing the importance of female cooperation as a way to deal with challenging habitats; with women alloparenting as an important feature of our species success that is even evidenced in modern life. Rosemarie Sokol Chang in chapter eight, documents the role of early infant vocalizations as a way to mobilize adult nurturing and engagement in intimate relationships. In chapter nine, Laura Betzig scrutinizes historical evidence of parental conflict in royal lineages, and concludes "sons fight with their fathers over inheritances, successions, and sexual access to women. And mothers tend to side with their sons" (p.201).

The third section of the book is concerned with the evolution of women health and reproduction. Chris Reiber analyzes the possible adaptive functions of menstruation, PMS, and menopause, building on Profet's early hypothesis of a defensive function of menstruation, and on the tenet that gamete competition is the cause of menopause. Then, Bobbi Low's chapter on fertility scrutinize the data on life history and ecological aspects related to an early or delayed conception, raising the point that "later fertility and few offspring mean fragile, easily extinguished lineages" (p. 238). On chapter 12 Johannes Johow, Eckart Voland and Kai Willfür propose an understanding of the extended postgenerative life spam of women, suggesting that X chromosome advantages in helping their female kin underlie women longevity. Then Michelle Escasa-Dorne, Sharon Young and Peter Gray, on "Now or Later", disentangle the proximate and ultimate causes for changes in women's sociosexual behavior throughout pregnancy and their postpartum life, proposing an ultimate conflict between reproduction an parenting effort underlying this struggle.

Mating and communication is addressed in the fourth section of the book, beginning by Linda Fedigan and Katharine Jack's description of sexual conflict in white-faced capuchins, and the adaptive value of female polyandry and reproductive synchrony. In chapter 15 David Frederick, Tania Reynolds and Brooke Scelza revisit the importance of female choice, and the counter evidence to female coyness, the trade-offs between male investment and female sexual access, as well as strategic pluralism; suggesting female choice can "substantially shape male behaviors, male traits, and entire mating systems" (p. 305). Christopher Wilbur and Lorne Campbell put forward the strategic role of humor in women choice as a sign of optimal cognitive skills and intelligence of the men. Next, Elizabeth Oberzaucher elucidates a dynamic communication model that involves selection pressures for the development of social skills in females, which would explain sex differences in cognition, non-verbal behavior, and emotions.

The final section of EE contemplates new disciplinary frontiers, starting by Tami Meredith and Maryanne Fisher's proposal that men dominated research on human motivations such as combat and war, have obscured women's sex-specific priorities and motivations that would complement our current view of human nature. In chapter 19 Nancy Esterlin undertakes a literary analysis of feminism and EP contrasting women's exchange of autonomous individuality for men resources, from the plot of British novel Jane Eyre. Julie Seaman develops next the proposal that sexual dimorphism is enhanced through dress, and she evidences it by scrutinizing court resolutions on dressing codes in the US, which show sex and status, are the main function of dressing codes in our species. In chapter 21 "cooperative breeding and the disestablishment of the biological clock" powerfully considers the contradiction of early female fertility vs. midlife motherhood in the context of modern human environment; with Michele Pridmore-Brown advancing the idea that maternal delay destabilizes patriarchal control over female reproduction. Finally, Leslie Heywood in her chapter develops the idea of an "extended synthesis" that invites the dialogue between feminism and EP based on the similarities among sexes and an advocacy of the use of "gender" rather than "sex", the consideration of "fast evolution", and the undermining of the appeal to ultimate causes of behavior as unchangeable to feminist perspectives. Probably, it is this very last chapter the one that posits the conceptual barriers and conciliating proposals to a definite integration of feminism and EP, which is left open to the reader from both perspectives to approach on future developments. Thus, the conclusion is clear: this book really delivers the promised dialogue between traditionally opposite views of women nature in its pages.

## **ABOUT THE AUTHOR**

**Ana Maria Fernandez** received her Ph.D. in Psychology in 2010 from Universidad de Chile, and she did a postdoctoral stay in 2011 at the Center for Evolutionary Psychology at UC Santa Barbara. She is associate professor of the Psychology department at Universidad de Santiago de Chile, where she recently inaugurated her interpersonal relationships and Evolutionary Psychology Lab (<u>www.labriype.cl</u>). Her research is concerned manly with mating, jealousy and mate value, in addition to psychometrics and emotion research.

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