

## How to Further the Divide Between Evolutionary and Nonevolutionary Thinkers

### A Review of

Evolution, Gender, and Rape, by Cheryl Brown Travis, Cambridge, MA: MIT Press, 2003. 454 pp.  
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Reviewed by  
**Aaron T. Goetz**  
**Todd K. Shackelford**

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☞ In 2000, Thornhill and Palmer published *A Natural History of Rape: Biological Bases of Sexual Coercion* (MIT Press) in which they invoke data and theory from evolutionary psychology and biology to articulate the causes of rape and to dismantle the socially constructed myths that surround the topic. Unsurprisingly, their work was met with mixed reviews; it was applauded by most evolutionary-minded thinkers (e.g., the dust jacket includes endorsements from S. Pinker, M. Ghiglieri, D. Geary, L. Betzig, and B. Low) and denounced by the rest.

☞ Added to *A Natural History of Rape's* list of detractors, now, is an entire book. *Evolution, Gender, and Rape* is an edited volume of essays critiquing *A Natural History of Rape* (hereafter *ANHR*). Edited by Cheryl Brown Travis, *Evolution, Gender, and Rape* (hereafter *EGR*) is a collection of 17 essays by 22 contributors working from disciplines as diverse as biology and sociology. It is disappointing that, of the 22 contributors, only 4 have written previously about rape or sexual coercion. Curiously, the chapters authored by those who have written previously about rape give an overwhelmingly more positive review of *ANHR* and offer a better discussion of the issues at hand. Moreover, because many of the contributors do not have an evolutionary background, many of them seem to misunderstand, at some point, Thornhill and Palmer's (hereafter Thornhill and Palmer) arguments. To take just one example, one contributor rejects outright the hypothesis that vaginal penetration is likely to be more traumatic to rape victims than other forms of penetration (due to the reproductive costs associated with the former) because, "it overlooks the invention of modern methods of birth control including postconception interventions" (p. 196). What is puzzling is that *ANHR* educates readers about the effects of evolutionary time lags (i.e., because evolution is an excruciatingly slow process, extant humans and their minds are designed for earlier environments of which they are a product). Even more puzzling is that one of the three examples Thornhill and Palmer give to illustrate the effect of the difference between current and evolutionary environments is itself an example of modern contraception (p. 7).

☞ Drawing on theory and data from several different disciplines to challenge *ANHR's* positions appears superficially to be a strength of the volume, but in fact works against *EGR*. Coming from different disciplines, the contributors repeatedly contradict each other throughout the volume. There is no consensus about what behavior constitutes rape, whether rape is a human universal, what Thornhill and Palmer's political agenda is, when to apply evolutionary theory to the study of human behavior, when to predict sex differences, what the sources of sex differences are, when a comparative psychological approach is appropriate, and what Trivers's theory of parental investment is able to predict, for example.

☞ Although *EGR* is marketed as a volume of essays evaluating *ANHR*, two chapters (Gowaty, Mackey) barely mention Thornhill and Palmer's book and one chapter (Eagly & Wood) doesn't mention it at all. Indeed, the word *gender* may have been added to the title so that such chapters seem more appropriate.

The volume is divided into three sections-Evolutionary Models and Gender, Critiquing Evolutionary Models of Rape, and Integrative and Cultural Models of Gender and Rape-but its organization appears to be arbitrary, as many chapters would do just as well under different sections.

☞ The same tired criticisms directed at evolutionary psychology pollute many of the chapters. Space prohibits us from discussing the value (and in some cases, the necessity) of taking an evolutionary perspective when studying human cognition and behavior, but many have devoted time to discussing why evolutionary psychology is not “just-so” storytelling, why it is not reductionistic, and why it is not biologically deterministic (e.g., Buss, 2004; Dennett, 1995; Tooby & Cosmides, 1992).

☞ At the end of one chapter is an acknowledgment to a prominent evolutionary psychologist who provided comments, and curiously (or perhaps not), this chapter is among the best and least flawed in its evolutionary logic.

☞ Many contributors make a statement about Thornhill and Palmer's “bad writing.” Only one contributor (Kimmel) elaborates on this criticism, however, and when he does, we soon find that his complaint is rooted in Thornhill and Palmer's thorough referencing and not in their grammar or style. Constructing an accurate and complete reference list is usually an admirable endeavor, but not to Kimmel. Apparently, he feels that referencing is only necessary when directly quoting previous work. In his chapter, he discusses data and theory on a variety of topics including parental investment, the mating habits of primates, infanticide, sex ratio, rape rates in medieval Europe, and rape rates as a function of women's status, for example. Yet none of these topics are referenced. Indeed, his reference list consists of nine references to nonempirical works-three of which are books and six of which are articles from nonacademic periodicals.

☞ Perhaps if Thornhill and Palmer had written more like *EGR* contributors Vickers and Kitcher, who invent clever alliterative names (e.g., Savannah Sam, Energetic Ernie, Doddering Dan the Deadbeat, Geriatric Georgina) to tell a conceptually misguided story about mate selection, their quality of writing would not have been criticized.

☞ Another limitation of *EGR* is its accusation that *ANHR* justifies rape and defends the actions of rapists. Thornhill and Palmer foresaw readers committing this naturalistic (or “is-ought”) fallacy, and so devoted several pages (18 to be exact) to warning readers against making this error in logic. Despite Thornhill and Palmer's sincere effort to prevent such fallacious thinking, a surprising 8 of the 14 chapters evaluating *ANHR* charge Thornhill and Palmer with excusing rape.

☞ Our largest criticism of *EGR* is that it lacks substance. The contributors devote too much space to disparaging *ANHR* (and its authors) and too little space elucidating rape's “real” etiology. When supposed alternative models are presented, they are typically in the form of bland general statements about the cultural or sociological context of rape. Those hoping to read that Thornhill and Palmer were mistaken will be pleased, but those hoping to learn specific, testable, alternative hypotheses to those of Thornhill and Palmer will be utterly disappointed.

☞ In 2001, *Trends in Ecology & Evolution* featured an article that discussed the current controversies surrounding the application of evolutionary principles to the study of human behavior (Smith, Borgerhoff Mulder, & Hill, 2001). In it, the authors suggested that using formal evolutionary models to measure the fitness costs and benefits of potential adaptations would be advantageous to the evolutionary psychological enterprise. To illustrate the value of such modeling, Smith et al. constructed a heuristic model to calculate the costs and benefits of rape. Based on this cost-benefit analysis, the authors concluded that for most men (under most circumstances), the costs associated with rape would

outweigh the benefits, that is, that rape is unlikely to have been directly selected for (a conclusion with which Thornhill and Palmer would not disagree). Such an analysis would have been a welcome addition to *EGR*.

☞ Even if *EGR*'s contributors lacked the time or imagination to test their own predictions based on their own theories, *ANHR* outlines six falsifiable predictions on page 65 that were available for testing. None bothered to test these predictions.

☞ *EGR* is not without its strong points. Many excellent points are made in several of the chapters. Most of these points, however, have already been articulated in *ANHR*. Several contributors, for example, make the important argument that the sociocultural context can influence rape behavior as much as biological tendencies do. Thornhill and Palmer agree, and in fact, they have an entire chapter (Social Influences on Male Sexuality) devoted to this topic. For a more complete list of points of agreement between *EGR* and *ANHR*, see Thornhill and Palmer (2003).

☞ The volume should be praised for its discussion of the significant role that females play in mating interactions. Examples of female control are engaging and informative (e.g., Did you know of the female guinea pig's "disappearing" vaginal membrane?), but these sections are written in a tone that leads readers to believe that Thornhill and Palmer dismiss female control. Thornhill and Palmer agree that females have produced powerful selection pressures on males (indeed, male sexual psychology owes more to females than to anything else). Similarly, we found Gowaty's discussion of Rice's (1996) demonstration of sexually antagonistic coevolution in *Drosophila* to be most appropriate.

☞ In conclusion, the gross misunderstandings of evolutionary theory, the lack of a consensus among the authors, the antiquated criticisms of evolutionary psychology, the unprofessional treatment of *ANHR*, and the utter lack of specific alternative hypotheses detract from *EGR*'s contribution to understanding rape.

☞ Popularized syntheses and edited volumes are popular because they provide an attractive alternative to finding and reading the many primary sources (i.e., empirical studies) related to a given topic. Unfortunately, these syntheses often lack the original data and, instead, are replete with interpretation. Interpretation of findings is a normal process of science, but the interpretation of data in these syntheses can go unchecked and may be reckless. We suspect that when reading the previous statement, those unsympathetic to an evolutionary analysis of human behavior and cognition will have had in mind *ANHR*, and those sympathetic to evolutionary psychology will have had in mind *EGR*.

☞ Due to this intellectual stalemate, we encourage readers to consult the primary sources (i.e., the data that are cited as evidence for and against evolutionary hypotheses regarding rape) and to brush up on modern evolutionary biology (see, e.g., Williams, 1966) before drawing a conclusion about the usefulness of applying evolutionary approaches to the study of rape. Ambitious academics could read both *EGR* and *ANHR* and attempt to formulate and test their own predictions based on evolutionary and nonevolutionary theories.

☞ It is ironic that, in the introductory chapter, Travis recounts instances of the media and newspaper reporters distorting or misinterpreting scientific findings. Her intention was to argue that, "the cultural desire for ordered gender differences sets a context for the formulation of research questions and for the interpretation of research findings" (p. 16). Instead, Travis inadvertently foreshadows the distorted and misinterpreted content of this volume.

☞ Even having said this, the volume is likely to end up on the bookshelves of academics who are

unsympathetic to evolutionary approaches to human behavior, and they will probably read it with affirmative nods and confirmatory smiles-furthering the divide between evolutionary and nonevolutionary thinkers.

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