

Original Article

A posse of good citizens brings outlaw evolutionists to justice. A response to *Evolution, Gender, and Rape*. Edited by Cheryl Brown Travis. (2003). Cambridge, MA: MIT Press.

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I. Introduction: Points of Agreement

Evolution, Gender, and Rape (January 29, 2003; MIT Press; henceforth referred to as EGR) is an edited collection of 17 essays purportedly “evaluating” our recent book, *A Natural History of Rape: Biological Bases of Sexual Coercion* (Thornhill and Palmer, 2000, MIT Press). There are many accurate points raised in these essays, *points that are also made in A Natural History of Rape* (henceforth referred to as ANHR). For example, Travis states that “[i]n every case, natural selection occurs in a gene–environment context” (Travis, p. 8; see also Gowaty, p. 61; ANHR, pp. 20-27, 30, 79, 82, 111, 153, 169, 173, 191), which means there is no “categorical divide between ‘nature’ and ‘nurture’” (Travis, p. 18; ANHR, pp. 22-30). Such “a conceptualization of biological influences not as hardwiring but as potential pathways that are shaped by the environment can lead to research with practical implications” (Koss, p. 202; ANHR, pp. 22-30). When attempting such an explanation of human behavior, a crucial part of the environment is “cultural transmission” (Travis, p. 18), because “culture and social structure can influence behavior” (Eagly and Wood, p. 278; ANHR, pp. 15, 24-29, 56, 107, 111, 123-125, 127, 129-130, 140, 142-143, 146-147, 152-153, 165-166, 175-177, 189, 198). With regard to rape, although “there is plenty of evidence to indicate that ordinary men . . . engage in rape” (Travis, p. 213), in all known cultures (Sanday, p. 359; ANHR, pp. 140-143), it is important to remember that “not all men engage in rape behavior, even when in positions that

would permit rape. Thus, there are different developmental outcomes and variation among individuals. Some of this variation may be cultural context and learning” (Travis, p. 21; ANHR, pp. 154, 169-177). More specifically, “whatever the natural basis of rape might be, culture exists to override these tendencies” (Sanday, p. 343; ANHR, pp. 143, 173). One such factor in the social environment during a male’s development that might be particularly important in overriding tendencies to rape is the presence of a father (Mackey, p. 313; ANHR, p. 175).

Further, when attempting to provide an evolutionary explanation of rape, it is crucial to remember “when an act of rape occurs, some combination of psychological features that humans have evolved to have must combine with environmental stimuli to prompt it” (Vickers and Kitcher, p. 158-159; ANHR, Chapters 2 & 3). It is also crucial to remember that “[a]s with all behavioral adaptations, the rapist need not be conscious of the evolutionary well-springs of his actions, just as we do not ponder the need to stoke our metabolism when sitting down to dinner” (Coyne, p. 177; ANHR, Chapter 2). Evolutionary explanations also need to realize that because of “the significant role that females play in reproductive decisions” (Travis, p. 17), females and males are not only equal forces in evolution (Gowaty, p. 62), “women are powerful selective forces” (Gowaty, p.61; ANHR, pp. 31-52). This is one of the reasons why most evolutionists believe that males and females evolved to differ in aggression and in sexual behavior (Coyne, p.174; ANHR, 31-52). One result is that “some men interpret women’s behavior in more sexualized ways than it was intended” (White and Post, p. 398; ANHR, p. 179). Men also are expected to exert unwanted sexual attention toward some women more than others because “primate females do vary considerably in their reproductive efficacy and it would be to any male’s advantage to pay attention to these individual differences among females” (Travis, p.209; ANHR, pp. 40-42).

Further still, when attempting to identify the specific evolutionary basis of rape, there is a “need to consider alternative hypotheses” (Vickers and Kitcher, p. 140). The adaptation and by-product hypotheses for rape “are not, in fact, exhaustive” (Lloyd, p. 245), indeed there are at least eight other possible evolutionary hypotheses (ANHR, pp. 53-84). It is particularly important to consider the by-product hypothesis because “[t]he phenomenon of evolutionary by-products is frequent in human evolution” (Lloyd, p. 237; ANHR, pp. 60-62). Hence, it is crucial not to simply accept the specific-rape-adaptation hypothesis as a fact in the manner of a “just-so” story (Coyne, p. 173; ANHR, pp. 53-84). Rape was not as successful a strategy as fathering (Mackey, p. 306; see ANHR, p. 63 for reasons this doesn’t rule out rape-specific adaptation), and the chances of pregnancy from a single act of intercourse such as rape probably have been relatively low (ANHR, pp. 99-100; but see Gottschall and Gottschall, in press). Moreover, there were often high costs associated with rape (Travis, p. 215; ANHR, p. 60). Therefore, evidence is needed of some aspect of human males that

is functionally designed to produce rape when the benefits outweigh the costs (ANHR, Chapter 3). Existing evidence is not sufficient to demonstrate such rape-specific adaptations in human males (EGR is described on its back cover as “[m]ultidisciplinary critiques of the notion of rape as an evolutionary adaptation”); hence, “the question whether rape is an adaptation or a by-product cannot yet be definitively answered” (ANHR, p. 84).

Also, since rape would have had negative fitness consequences for females, “under either evolutionary scenario [of the cause of rape], females are also hypothesized to have evolved rape-related adaptations... ” (Lloyd, p. 238). Indeed, there is abundant evidence of “specialized physical, structural and behavioral female ‘barriers’ to forced copulation” (Drea and Wallen, p. 29). These include female–female alliances (Drea and Wallen, pp. 41-42), female manipulation of sperm competition (Drea and Wallen, pp. 49-50), and seeking males as “body guards” (Gowaty, p. 80; ANHR, pp. 97-104).

Finally, the evolutionary approach to the causes of rape is in direct contrast to the approaches that have dominated social science theories about rape, which see rape as primarily, if not exclusively, caused by social and cultural factors. One of the reasons the evolutionary approach’s challenge to these theories is so controversial is that “[g]ender politics are nowhere more profound than in the area of sexual aggression” (Travis, p. 3; ANHR, pp. 114-115, 119-122). For example, “it is true that in recent decades the discussion of rape has been dominated by such notions [as ‘rape is not about sex, but about violence and power’],” which was proclaimed for political rather than scientific reasons (Coyne, p. 176). Given that ANHR challenged this proclamation, and the fact that “media accounts distorted, exaggerated, misinterpreted, and over-generalized the findings [of books that make such challenges]” (Travis, p. 15), it is not surprising that media coverage of ANHR has been largely negative. Further, despite ANHR’s many warnings against making the naturalistic fallacy, many reactions to ANHR were based on it (Lloyd, p. 259; ANHR, introductory quote, and pp. 5-6, 84, 107-111, 117, 119-122, 124, 148, 150, 179-180).

On the basis of this impressive amount of agreement, one might expect that EGR’s evaluation of ANHR was positive, or at least balanced. Nothing could be further from the truth. In describing the contributors to the book, Travis states, in what is a classic example of understatement, “None finds the evolutionary account of rape to be in any way compelling” (Travis, p. 17). Actually, except for the two articles that barely mention ANHR (Gowaty, Mackey) and the one article that doesn’t mention it at all (Eagly and Wood), the contributors appear to be in competition with each other to come up with the most disparaging adjective. Kimmel clearly wins the insult contest with his rampage that includes the words silly, unwarranted, preposterously reductionist, vainglorious and self-promoting, preposterous, narcissistically self-aggrandizing, nonsense, dreadfully poor, ideological fantasies of those who justify sexual coercion, bad science, bad

history, bad politics and appallingly badly written (pp. 221-222). Kimmel's moral indignation over ANHR is so great that he is even compelled to speculate on the authors' personal lives, including how often they've had sex (p. 225). Even in a field marked by controversy, the treatment of ANHR is so unprofessional that Vickers and Kitcher devote a section of their article to justifying it: "In defense of Irreverence."

This raises the obvious question of how a collection of articles that agrees with so many of the points raised in a book could condemn that same book so vehemently. Obviously, none of the points of agreement just presented are acknowledged by the contributors to EGR, but that is only a small part of the answer.

II. A "Sticker Book" (Misrepresentations and False Accusations)

Ten thousand copies of *Introducing Evolutionary Psychology* (Evans and Zarate, 1999) have a sticker on p. 155 stating that the words attributed to Steven Rose concerning cultural determinism "is a misleading caricature of his [Rose's] views." If the same standards and procedures were to be applied to EGR, it would literally become a "sticker book" filled with such apologetic stickers. Many of these stickers would point out that the portrayal of ANHR as a kind of biological (genetic) determinism that ignores cultural and other environmental factors, and sees behaviors as "fixed" and "inevitable," is at least as misleading as the statements about Rose that caused him to obtain the "legal advice" (Symons, 2000, p. 286) that led to the sticker (for examples, see Travis, pp. 17, 218; Lloyd, p. 254; Vickers and Kitcher, pp. 140, 144, 145; Kimmel, p. 232; Martin, p. 378; Shields and Steinke, p.101; Coyne, pp. 178, 185; Koss, p. 202; Tobach and Reed, pp. 105, 117; Sanday, p. 339; Rosser, pp. 413, 417, 418). These accusations of biological (genetic) determinism, however, are much less objectionable than Rosser's accusation that the authors of ANHR are "like the nineteenth-century Social Darwinists" (p. 416, see also Rosser, p. 422; Travis, p. 213).

Many additional stickers would be needed to cover the instances where ANHR is falsely portrayed as arguing that rape is an adaptation (Drea and Wallen, pp. 29, 31; Shields and Steinke, pp. 91, 99; Tobach and Reed, p. 112; Coyne, pp. 173, 175; Travis, p. 207; Lloyd, p. 249; Sanday, p. 360; Martin, p. 377; White and Post, p. 384; Rosser, p. 417). Although this type of mischaracterization seems more benign, it has even greater implications because so much of EGR consists of criticisms of ANHR for arguing that human rape is an adaptation. To make their criticism, the contributors use a number of tactics to circumvent the fact that ANHR explicitly states that "the question whether rape is an adaptation or a by-product cannot yet be definitively answered" (ANHR, p. 84). Some acknowledge our consideration of the by-product hypothesis, but then portray it as being essentially the same as the adaptation hypothesis by falsely claiming that both

predict rape increased reproductive success (see Lloyd, p. 249; Mackey, p. 305; Sanday, p. 342). Others assert that although we mention the by-product hypothesis, we actually argue for the adaptation hypothesis. For example, Lloyd asserts that the adaptation hypothesis is our “*primary*” hypothesis (p. 237; emphasis in original; see also Koss, p. 192). None of the contributors point out that ANHR anticipated such a misinterpretation about which hypothesis was “primary” by making the statement “[i]n keeping with Williams’ (1966, 1992) view that complex traits should be considered adaptations only if they cannot be accounted for as by-products, we will examine the by-product hypothesis first” (p. 61).

The strangest of the misrepresentations is presented by Coyne, who not only portrays our consideration of alternative hypotheses as an ingenious rhetorical “trick,” but asserts that, “[a]lthough Palmer himself professes to favor the by-product hypothesis, the authors continuously push the mixture of directly adaptive theories that I have just described. The direct-selection theory first appears in the fourth chapter, and the remaining eight are devoted to discussing this theory alone and its implications for society” (p. 178). What is so strange about this is that all of the discussion of both the by-product hypothesis and the adaptation hypothesis about why human males rape is in Chapter 3. Chapter 4 examines the hypothesis that human females have anti-rape adaptations. Evidently, Coyne fails to understand that these two questions are independent since both the rape-as-adaptation and the rape-as-by-product hypotheses would predict the evolution of anti-rape adaptations in females (see Lloyd, p. 238). Similarly, the remaining chapters of ANHR are no more “supportive” of the adaptation hypothesis than they are of the by-product hypothesis.

Equally confounding is Coyne’s assertion that we provide a series of predictions that are “all supposedly verified by the author’s research” (Coyne, p. 180). ANHR does provide a series of predictions concerning “*Potential Rape Adaptations in Men*” (ANHR, p. 64, emphasis added), but these aren’t what Coyne describes. Further, as previously stated, we emphasize that none of these predictions have been verified (unfortunately, none of the contributors to EGR make serious attempts to test any of these predictions).

Coyne’s motivation to portray ANHR as an argument for rape-specific adaptation seems to come from the fact that he himself finds the by-product hypothesis “a reasonable view . . . that few biologists will find objectionable,” and that “might readily explain rape” (Coyne, p. 175). Amazingly, Coyne then states that “[w]e can thus dismiss the by-product hypothesis, because there is no conceivable observation that could disprove it.” (p. 177). This is based on his assertion that ANHR doesn’t specify testable predictions about the adaptations that produce human rape as a by-product. This assertion is false because ANHR does specify the adaptations that might produce rape as a by-product (ANHR, pp. 60-63), some of which are discussed by Travis (p. 208). If any of the authors

acknowledged that ANHR explicitly says that, on the basis of current evidence, rape cannot be shown to be an adaptation in humans, the irrelevance of many, perhaps most, of the criticisms in EGR would be starkly apparent.

Stickers also should be placed on a number of pages where ANHR is accused of ignoring women and their role in evolution. For example, Drea and Wallen assert that ANHR “ignores the significant role that females play in reproductive decisions” (p. 29). Gowaty asserts that ANHR “prematurely rejected insights and evolutionary hypotheses about the nature of coercive sexuality from the perspective of females” (p. 81), and Travis asserts that ANHR gives “little or no attention to the co-evolution of female reproductive strategies. It is as if females did not evolve at all” (p. 214). For a discussion of the role of females in evolution, see Chapter 2 of ANHR, and for a discussion of their evolution specifically related to rape, see especially pp. 97-104. As for the accusation by Rosser that ANHR interprets “females as inferior to males” (p. 420), we simply point out that it is made without any supporting evidence.

Stickers should also be put on the even more serious charge that ANHR is a “justification” of rape (Koss, p. 200; see also Rosser, p. 414; Kimmel, pp. 221, 232; Coyne, p. 172; Sanday, p. 339; Shields and Steinke, p.98). Coyne (p. 185) and Kimmel (p. 232) make the unsubstantiated charge that ANHR could be used by defense lawyers (see Jones 2000 for reasons to doubt such a possibility). Kimmel describes ANHR as “the ideological fantasies of those who justify sexual coercion” (p. 222), and Martin states that our stance is “insidious because, their protestations to the contrary, their account actually amounts to an incitement to rape” (p. 378). Since all of these accusations clearly are based on the naturalistic fallacy, one might think that our attempts “to deter this reaction repeatedly” (Lloyd, p. 255; previously cited pages from ANHR) would be praised. Lloyd, however, claims that we were still “irresponsible” because some readers still made the naturalistic fallacy (p. 259). Although it could be argued that ANHR should have warned readers against the naturalistic fallacy on even more than the previously cited 18 pages, there is also the question of the responsibility of the previously listed contributors to EGR that justify and promote reactions based on the naturalistic fallacy.

As serious as all of these misrepresentations are, EGR contains two even more explicit and serious charges. The first is by Coyne who accuses us of misrepresenting data on the psychological pain of rape victims: “Lacking the time to look up every citation, I decided to check three claims about rape taken from Thornhill’s own earlier publications. I was shocked to find that none of these claims are supported by the cited articles” (Coyne, pp. 182-183; see also Lloyd’s accusation on p. 257 of “data-fudging,” evidently based on this accusation by Coyne). All of these concern ANHR’s claim about differences in the emotional responses to rape in reproductive-age females and females who are younger or older. “In the three publications by Thornhill and Thornhill, the data show that

while younger women (under twelve years) do indeed experience less trauma, violence, and vaginal rape than do reproductive-age women between the ages of twelve and forty-four, *older women do not differ from reproductive-age females*. Thornhill and Palmer thus achieve their ‘supportive’ results by statistical sleight of hand . . . This is not the way that scientists normally behave” (Coyne, p. 183; emphasis in original). Coyne then states, “I emphasize again that these are the only bits of supporting ‘evidence’ that I checked. Did I happen, by chance, to find the only three inaccurate citations in the book?” (p. 184). The cause of Coyne’s misunderstanding appears to be very simple. Although he took the time to start reading the original article, evidently his “shock” (or perhaps “joy”?) was so great that he evidently failed to read far enough into the article to reach the discussion and associated table of results showing the asserted relationship (see Table 4, Appendix 3 of N.W. Thornhill and R. Thornhill, 1990). Coyne’s accusations are false.

We responded to this criticism of Coyne’s earlier. Indeed, we responded to virtually all the criticisms of EGR in our 2001 publication, New Preface, “Rape and Evolution: A Reply to our Critics,” on MIT Press’ web site for the paperback edition of our book. MIT published EGR and surely alerted the EGR authors to our response to critics. Of course, it was not MIT Press’ responsibility to ensure that EGR authors had read Palmer and Thornhill’s latest comments and replies to critics; it was the responsibility of the authors of EGR to evaluate this material. Had these authors paid attention to our response, as is characteristic of real scholarship, there would have been no basis for duplicating the vacuous criticisms in EGR.

An even stronger accusation is made by Kimmel: “Thornhill and Palmer’s use of evidence is so selective that it may well constitute scholarly fraud” (p. 225). To support this serious accusation, Kimmel states: “‘In some animal species,’ they write, ‘rape is commonplace’” (p. 225). Why is this fraud? According to Kimmel, because “the absence of rape behaviors has been equally found for varieties of those species as well. Oops.” (p.225). Our motive for this “fraud” is, according to Kimmel, that the existence of species without rape is a fact we are “utterly unable to explain” (p. 226). To be honest, we are not entirely clear about what exactly we are supposed to have done. Our guess is that he is accusing us of claiming that rape occurs in *all* species when it clearly doesn’t. Such a claim clearly would be false (although we don’t really see how the word “fraud” would apply), but ANHR does not contain anything like this claim. ANHR does claim that rape occurs “widely,” but it never claims that rape occurs in all species. Further, ANHR discusses at some length why evolutionary theory predicts that rape should occur in some species, but not in others. ANHR suggests that rape (at least rape by males) should be found only in polygynous species, and then only when the benefits have outweighed the costs (see Chapters 2 and 3). ANHR also states that “[r]esearchers have just begun to examine the cross-species presence *and*

absence of rape and other sexual coercion in the light of ecological variables that are hypothesized to affect female vulnerability and selection pressures” (ANHR, p. 146; emphasis added). Needless to say, some very large stickers would be needed for the chapters by Coyne and Kimmel.

III. EGR’s Alternative View of Evolution, Gender, and Rape

Given that EGR distorts the content of ANHR to the extent that it cannot really be considered an evaluation of that book, EGR might be best evaluated in terms of its own contribution to the understanding of evolution, gender, and rape.

EGR’s view of evolution

The contributors to EGR appear to agree with the theory of evolution, although Martin seems to suggest that it may be no more than a reflection of Western cultural values. There is much less agreement when it comes to the evolution of male–female differences, particularly Darwin’s theory of sexual selection and its refinement by Trivers (1972). With regard to this theory, Lloyd points out that, “This is a standard view among many biologists working in human and animal evolution.” (p. 258). However, Rosser states that, “[i]n contrast to accepting his theory of natural selection, many feminist scientists have critiqued Darwin’s theory of sexual selection for its androcentric bias” (p. 414), and Travis leaves sexual selection conspicuously out of her introductory overview of evolutionary theory. Similarly, Vickers and Kitcher praise Hamilton and Maynard Smith, and even Boyd and Richerson, but make no mention of Trivers. Koss refers to “the old [evidently implying no longer accepted] concept of differential parental investment (Trivers 1972)” (p. 193). Kimmel is much more direct, referring to “Robert Trivers’s reductionist evolutionary theory” (p. 223) and asserting that “Trivers’s arguments have been effectively refuted by primatologist Sarah Blaffer Hrdy. . . .” (p. 224).

In regard to the work on sex differences by David Buss, Vickers and Kitcher devote more than a dozen pages to disparaging it and seem to doubt if any of the male–female differences found by Buss actually exist (pp. 146-154). In contrast, Mackey seems to accept Buss’s work, and Eagly and Wood even refer to Buss’s “impressive study” (p. 283). Eagly and Wood’s acceptance of the male–female differences found by Buss is not surprising given that their paper is a presentation of their alternative explanation of those differences. Their alternative is that natural selection has produced adaptations in both the bodies and brains of humans (although they list only a few general adaptations in the brains). Further, natural selection has produced differences in the bodies of males and females. However, natural selection, according to Eagly and Wood, has failed to produce any differences in the brains (i.e., psychology) of men and women. No

explanation for this arbitrary selectiveness of natural selection is provided (for earlier critiques of this theory, see Buss, 1996).

With regard to the specific discipline of evolutionary psychology/sociobiology, Lloyd refers to it as a “fringe version of the actual theory of evolution” (p.243) because it downplays such factors as drift, mutation, gene flow and phyletic inertia. Vickers and Kitcher contrast the practitioners of this approach with the noble evolutionary “workers on social insects or sage grouse” (p. 163), evidently forgetting Thornhill’s work on insects and birds, as well as Alcock’s (2001) work on insects.

Contradictory and inaccurate views are found on other aspects of evolution. For example, several of the contributors make the assertion that for rape to be an adaptation, rapists must differ genetically from non-rapists (Travis, pp. 19-20, 212), possibly stemming from the mistaken notion that “heritability” is equivalent to “inheritable” (Lloyd, p. 241; see ANHR, pp. 22 for reasons why this view is incorrect). There is also disagreement over the plausibility of group (or multi-level) selection. Tobach and Reed state that, “[t]he prevailing conceptualization of natural selection is that it is primarily based on individual survival” (p. 108), but Gowaty (p. 61) and Koss (p. 201) criticize ANHR for using this standard view. There is similar inconsistency over the concept of the environments of evolutionary adaptedness (EEA) (see Shields and Steinke, p.98; Coyne, p. 179; Travis, p. 209), with Gowaty even making the seemingly bizarre assertion that the best “estimate of the human EEA might be our parent’s generation” (p. 69).

We suggest that the key to understanding these seemingly arbitrary disagreements over aspects of evolutionary theory is the lame view that evolutionary theories can be evaluated on the basis of their compatibility with certain ideological goals. Gowaty states that her “paper shows again what Hrdy has shown repeatedly. Hypotheses sparked by feminist consciousness can be both completely consistent with Darwinian explanations of behavior and testable” (p. 62). This is certainly true. The question is, what happens when Darwinian explanations are not consistent with “feminist consciousness.” EGR indicates that they not only stop being “of interest” to some feminists, they are arbitrarily rejected.

Perhaps the most fundamental misunderstanding of evolution found in EGR concerns the meaning of proximate and ultimate. Several of the authors confuse ultimate reproductive consequences in the past with proximate motivations of current behavior. Drea and Wallen talk about whether or not rapists are “expecting progeny” (p. 32), and then use this misunderstanding in their personal attack on the authors of ANHR: “It is undoubtedly true that there are males who may try rape as a reproductive strategy, just as there are, apparently, academics who promote the idea as an academic strategy” (p. 52; see also Coyne, pp. 172, 180; Travis, p. 215; Kimmel, p. 225; Eagly and Wood, p. 294). Shields and Steinke’s entire chapter criticizing ANHR’s use of self-reported data appears to

be based on their confusion of an ultimate cause with an unconscious proximate cause. For example they refer to "... the impulses and attractions [which are proximate causes] that Thornhill and Palmer hypothesize as the *ultimate* explanations for rape and reactions to it" (Shields and Steinke, p. 91; emphasis added). This confusion is obviously at the base of their assertion that "Because evolutionary psychologists try to probe ultimate explanations, which they assume to exert an effect on us without our explicit awareness of the mechanics of those effects, they have an especially heavy burden of proof" (p. 90).

EGR's views on gender

Lloyd criticizes ANHR for "a caricature of social scientists, who supposedly believe in 'cultural determinism'" (p. 250). However, numerous statements by contributors indicate that "the idea that biology doesn't much matter" (Wright, 1994, p. 5; what Tooby and Cosmides call the "standard social science model") is still a very widely accepted view. For example, Travis asserts that "[t]he understanding, meaning, and significance accorded actions are derived not from biological features, but from society and culture" (p. 22), and that "sociocultural, socialization, and socioemotional experiences of men provide a compelling and comprehensive account of variations in men's violence toward women" (p. 23). Tobach and Reed state that it is "possible to view sexuality as a sociosocietal process" (p. 127). Travis states that sex is "a function of social constructions" (p. 210), "[r]esearch findings of greater male inclinations toward casual sex may reflect a variety of social, rather than biological, conditions" (p. 211), and we need "to understand rape as a social and cultural phenomenon" (p. 218). Eagly and Wood state "[s]ex differences in behavior thus reflect contemporaneous social conditions" (p. 278). Sanday states that in some cultures "rape is the playing out of a sociocultural script" (p. 341). White and Post praise Brownmiller for addressing rape as a "nonbiological event. She conceptualized rape as a cultural phenomenon" (p. 383). White and Post also concur with ANHR's conclusion that "social learning theories . . . stress the differential socialization experiences of men and women" and "[g]ender socialization theories explain rape as rooted in the dominant culture" (p. 391). They also state that "men rape because they have learned that rape is acceptable and normal behavior" (p. 392). Finally, Sanday appears to concur with ANHR's description of "the feminist social-science explanation of rape" when she states "[w]ith its emphasis on the role of culture, the 'feminist social-science explanation of rape,' which Thornhill and Palmer denigrate as bad science, has a better chance [to explain rape]" (pp. 358-359). Clearly, the contributors to EGR still see culture as both separate from biology and capable of determining, or nearly determining, human behavior, including behavioral differences between males and females.

EGR's views on rape

EGR's views on rape are even more inconsistent than its views on evolution. First, there is little agreement on the definition of rape, or even on whether or not a definition is possible, as well as the baffling false assertion that ANHR's definition restricts the definition of rape to only acts that lead to reproduction (Tobach and Reed, p. 116).

There also is disagreement on whether or not rape is the act of only psychopaths/sociopaths. Travis praises feminist researchers for refuting the "common myth" that rape is a rare event perpetrated only by "sociopaths" (p. 3), and points out that "there is plenty of evidence to indicate that ordinary men . . . engage in rape" (p. 213). However, Tobach and Reed (p. 114) support the psychopathology explanation of rape. Similarly, Lloyd asks, "[a]nd what happened to the patently obvious hypothesis that raping behavior is due to psychopathology?" (p. 247). Lloyd also praises Geoffrey Miller for favoring the psychopathology hypothesis, an act that evidently removes Miller from the "fringe" category of evolutionist (p. 258). Kimmel even makes the accusation that the authors of ANHR "hate men" because they suggest that ordinary non-psychopathological males might commit rape under some circumstances: "the hypothesized male propensity for rape is an unacknowledged form of male bashing where all men are painted with a common brush as violent, rapacious predators" (p. 231). This view is even more puzzling given that two pages earlier Kimmel claimed that men of his generation "would have to confess that virtually all of us are 'failed attempted date rapists'" (p. 229).

There also seems to be considerable confusion over whether or not rape is a human universal. The term "universal" in anthropology usually means "a trait found in all societies, or all cultures" (Brown, 1991, p. 42). In 1981, Sanday published a paper whose "first general hypothesis" was that "sexual assault is *not* a universal characteristic of tribal societies" (1981, p.9; emphasis in original). This was based on the reported finding that 45 out of 95 cultures in her sample were "rape-free." However, she was using both the term "universal" and the term "free" in very unusual ways. By "not universal," she meant only that "[t]he incidence of rape varies cross-culturally" (Sanday, 1981, p. 9). In her chapter in EGR she also explains, "My rape-free code was based on reporting by ethnographers that rape is rare or absent. I did not take the ethnographers to mean that rape was literally absent, only that they found no evidence that rape was commonplace" (p. 359). There can be little doubt that the frequency of rape, like the frequency of nearly all human behaviors, varies from one culture to another. However, Sanday did not measure the actual frequencies of rape. She relied on questionable ethnographic reports (see Palmer, 1989) of such things as the presence or absence of "ceremonial" rapes on which to base her codings. Hence, her conclusions about correlations between the frequency of rape and other

factors is highly speculative. This is why ANHR, drawing upon a re-examination of the ethnographic evidence on rape (Palmer, 1989), pointed out that what the ethnographic evidence actually demonstrates is that rape not only occurs in all known human societies, it does so despite being subject to punishment in all known human societies (ANHR, pp. 140-143). In her chapter, Sanday refutes this position by simply repeating her 1981 assertion that “the incidence of rape is not constant cross-culturally” (p. 340), and by describing one more culture, the Minangkabau, where rape appears to be rare (again, no statistics are presented), but does occur despite being subject to punishment (p. 355). She then says that “Thornhill and Palmer come close to my conclusions regarding variation in the incidence of rape when they say that ‘[t]he ethnographic evidence indicates that *some frequency* of rape is typical of *Homo sapiens* . . . (2000, p. 142; emphasis mine)” (p. 359). Then, surprisingly, she states, “However, I disagree with their conclusion that ‘human males in all societies so far examined in the ethnographic record possess genes that can lead, by way of ontogeny, to raping behavior. . . .’” (p. 359-360). We fail to understand her reason for rejecting this conclusion, just as we fail to understand Travis’s assertion that Sanday’s finding “directly undermines at least some of the support for the proposal that rape evolved among men more or less universally” (p. 22), or Rosser’s claim that “[t]hus, human rape varies tremendously across cultures within the species, thereby refuting the notion of Thornhill and Palmer that rape is universal and adaptive” (pp. 418-419). Our guess is that these authors fail to acknowledge that both the by-product and adaptation hypotheses predict that the frequency of rape will fluctuate with environmental, including social and cultural, variables (ANHR, pp. 140-143). As to Kimmel’s assertion that “[w]e have evidence of the absence of rape” in “several cultures” (p. 226), we would just like to point out that he provides no evidence or supporting citations.

One of the most important contradictions in EGR concerns the ways that women can avoid being raped. Several of the contributors criticize ANHR for suggesting that a woman’s physical appearance, as influenced by such factors as age and dress, as well as such behavior as avoiding being alone with males near the beginning of relationships, could influence her chances of being raped (Shields and Steinke, p. 101; Vickers and Kitcher, p. 165; Koss, p. 198; Coyne, p. 185). This criticism is usually based on the assertion that this position “blames women” for rape. For example, Kimmel says it is “silly because it blames the victim” (230). However, there is a crucially important difference of opinion underlying this seeming unanimity. On the one hand, several authors condemned us for asserting that women could do *anything* to lessen the chances of being raped. For example, Vickers and Kitcher state that “[a]ny sensible approach to rape education should be freed from suggestions of female responsibility or complicity” (p. 165). Koss even asserts that “[t]he entire premise [of ANHR’s suggestion] is based on an empirically unfounded assumption that women can

protect themselves from rape” (p. 198), and that “[a]dvice on women’s dress and conduct should be rejected not only because it is unscientific, but also because of its tacit assumption that women have a responsibility to act ‘reasonably’ and live their lives in fear of rape. This thinking is absolutely unacceptable in a democratic society” (p. 199). This view is in direct contradiction to the reason Coyne criticizes ANHR’s suggestions. Coyne criticizes ANHR’s suggestion to “urge women to avoid secluded spots” because it is “obvious and derivable from nonevolutionary views of rape” (p. 185). Similarly, Lloyd states that “[a]s far as rape prevention goes, their [ANHR’s] suggestions are nearly all features that have been central to the feminist revolution in rape counseling: advising caution about being alone in isolated places; advocating self-defense training; urging women to exert greater control over circumstances ‘in which they consent to be alone with men’ (2000, p. 186)” (p. 257). This statement demonstrates that if ANHR’s suggestion that a women’s behavior can reduce her chances of being raped is “blaming the victim,” then the existing feminist suggestions for preventing rape also have been “blaming the victim.” This indicates that the real reason behind the criticism of ANHR’s assertion that a women’s appearance might be one of those factors (which is certainly going to be the case if sexual desire is one of the motivations of rapists, see below) is not because it blames women. Lloyd provides the real reason when she points out that “[t]hey [the authors of ANHR] differ from feminist advice [only] in their recommendation that women wear more concealing clothing” (p. 257). Women can obviously do a great many things to lessen their chances of being raped, and the contrary view is not only “silly,” it is socially irresponsible. The rejection of any particular tactic to reduce the chances of being raped simply because it differs from feminist advice also is socially irresponsible.

This brings us to the question of the role of sexual desire in the motivation of rapists. As Coyne points out, the starting point of this discussion is the fact that “[i]t is true that in recent decades the discussion of rape has been dominated by such notions” as “rape is not about sex, but about violence and power” (p. 176; see also Koss, p. 192; Drea and Wallen, pp. 32, 38). When Palmer first challenged this “notion” (Palmer, 1988) a colleague reported that reading his challenge was like being in Hans Christian Andersen’s fairy tale when the child speaks up and says the emperor isn’t wearing any clothes. This is because the claim that rapists are not sexually motivated, like the assertion that the naked emperor was clothed in the finest robes, “originated not as scientific propositions but as political slogans” (Coyne, p. 176). Coyne seems to see this as excusing the presentation of such claims as if they were scientific propositions, but Andersen clearly saw such politically motivated inaccurate assertions about the world as dangerous and hoped to warn people against such behavior by writing his story. The real world example indicates that Andersen actually overestimated the ability of humans to reject such non-scientific propositions even after someone has spoken up.

Andersen's story reads:

"But he has nothing on at all," said a little child at last. "Good heavens! Listen to the voice of an innocent child," said the father, and one whispered to the other what the child had said. "But he has nothing on at all," cried at last the whole people." (Paul, 1872)

The same reaction occurred when ANHR challenged the view that had "dominated" discussions of rape (none of the EGR contributors bothered to quote exactly what ANHR says on this issue). For example, a rape survivor stated:

"Finally. Finally, somebody is coming around to my way of thinking on the motivations of rape. . . . During my quest [to know why I was raped], I came across a lot of people who liked to quote the so-called experts and say things such as, "It's a crime of violence, not sex" and "It's a control thing." Boy, did I hate those people. In my mind, they were wrong." (Eckstein 2000)

Reactions in EGR, however, are different. Travis seems to continue to assert that the emperor is wearing beautiful robes by criticizing ANHR because "Nothing [in ANHR] suggests that it might be useful to challenge the common cultural understanding of rape as sex" (p. 21; see also Tobach and Reed, p. 115). The sarcastic tone of Vickers and Kitcher when they write "[a]dd on a denunciation of that feminist canard that rape isn't a sexual act—what nonsense!—and we're done" (p. 154) seems to indicate that they do as well (see also p. 155). Travis clearly takes this position: "The most fundamental error made by Thornhill and Palmer is to characterize rape as largely an act of desire. The proposition that sexual motivation is the common denominator of all rape was debunked by feminists decades ago. Some of the relevant arguments and data were elaborated in the 1975 foundation work of Susan Brownmiller (*Against Our Will*)" (p. 211). This last reference to Brownmiller is interesting because several of the contributors claim that Brownmiller never put forth this position. For example, Vickers and Kitcher point to the fact that Brownmiller acknowledged that young women were the most likely to be raped. Ignoring the fact that Brownmiller also said that rapists select their victims "with a striking disregard for conventional 'sex appeal'" (Brownmiller, 1976, p. 338), Vickers and Kitcher "reconstruct" Brownmiller's view to suggest that what she really meant to say was, "The coercive expression of sexual desire is the result of a failure in an inhibitory mechanism that can be caused by hostility toward the victim" (p. 161). Not only did Brownmiller not say this in 1975, she still isn't saying that rapists are motivated by sexual desire. She's only making the claim, that is as obvious as it is irrelevant to the debate over motivation, that, "I never said that rape was not involved with sex. Obviously, it uses the sex organs" (Brownmiller, quoted by Lloyd, p. 251; see also Sanday, p. 343).

The attempt to deny that the claim "rape is not about sex" was never made, or that it never meant that rapists were not motivated by sexual desire, suggests that Andersen's story would have been more realistic if it read

“Good heavens! listen to the voice of an innocent child,” said the father, and one whispered to the other what the child had said. “*But no one ever said he was wearing clothes,*” cried at last the whole people.

Jones (2000, p. 169) points out there are at least 4,096 possible meanings to the phrase, “it is not a crime of sex, but a crime of violence.” While there never seemed to be any confusion about the meaning of this slogan before ANHR, now that a high-profile challenge to it has been made, many of the contributors seem to be asserting that it’s all been a misunderstanding. For example, claiming that they never said sex organs were not involved, or that when they said rapists were motivated by power they meant sex because these things are really the same (Martin, p. 378), or the even more confusing statement by Koss that “rape is not a sex act, it is a crime that can be impelled by sexual motives” (p. 200). In addition to the existence of countless published repetitions of the claim without any apparent misunderstanding of its meaning (see Palmer, 1988 and Palmer *et al.*, 1999, for examples), there is a further fact that makes such revisionist history unlikely. If Brownmiller and others have been misquoted or misunderstood, why didn’t they bring this up before the political slogan was challenged? For example, why didn’t Brownmiller object when Hill wrote “. . . *Against Our Will: Men, Women and Rape*—rated by the New York public library as one of the 100 most influential books of the 20th century—first instigated the theory that rape had nothing to do with sex and everything to do with a desire to dominate and control women . . .”? (Hill, 2000). More importantly, why don’t they do something about the rape-prevention instructions that are still being given to one of the most vulnerable populations of women. If the “not sex” explanation of rape was never meant to be taken as a real explanation of the causes of rape, or if it had never even really been stated in the first place, how come “The ‘rape myths’” presented to students at the University of Wisconsin, Texas A & M, Tulane University, and Monash University in Australia, to pick a few, contain statements like the following: “Since sexual assault is all about power, not sex, the age or appearance of the victim is irrelevant,” and “Rape is not about sexual orientation or sexual desire. It is an act of power and control in which the victim is brutalized and humiliated” (Alcock, 2001, p. 207).

IV. Conclusion: Building for the future

It is unfortunate that EGR was dedicated to discrediting ANHR at any price. The ubiquitous misrepresentations produced by this approach not only makes EGR of little value as an evaluation of ANHR, it greatly reduces EGR’s own contribution to the understanding of rape. In terms of ultimate causation, EGR’s preoccupation with condemning anyone who even suggests the possibility of rape-specific adaptations in men distracts it from testing any of ANHR’s predictions that might actually settle the issue. In terms of proximate causation,

it's overall contribution is so confused and contradictory that it doesn't increase understanding much beyond Drea and Wallen's statement, "Therefore, the simplest proximate explanation for why males might force copulation on females is because they *can*" (p. 38; emphasis in original). EGR does, however, contain reasons for optimism about future attempts to increase knowledge about the causes of rape. First, the chaotic positions found in EGR on the role of sexual desire in the motivations of rapists indicate that ANHR has largely succeeded in bringing an end to the reign of the assertion that "rape is not a sexually motivated act." If so, this will remove perhaps the largest obstacle to increasing knowledge about the actual causes of rape. The many points of agreement between the contributors to EGR and the positions taken in ANHR discussed at the start of this review also are reasons for optimism, especially the fact that many of the questions about rape are now being approached from the perspective of the evolutionary paradigm. As long as these ideas are discussed within the context of evolution, the more grievous misunderstandings of evolutionary theory found in EGR will be quickly corrected. This raises the probability of real progress being made on the causes of rape, and the use of the knowledge in the prevention of rape. Of course, this will only be possible if rape researchers refuse to engage in the type of blatant misrepresentation found in EGR.

As scientists, we find fascinating how much many people dislike the fact that rape is evolutionary and the extreme difficulty many people have in maintaining reasonable thinking or talking about rape in biological terms. By raising the topic of the biology of rape in a conversation with another, one can determine if the person has consistent scientific objectivity or not. It can be used as an acid test of whether a person has interest in knowing or may be blinded by ideological convictions.

We hypothesize that people have a psychological adaptation whose function is to disable the mind's reasoning and thereby prevent personal acceptance of ideas that are perceived contrary to the ideology of the perceiver's community. This hypothetical adaptation is the "knowledge destroyer." Its functional design is to prevent acceptance of an idea that is not consistent with one's ideology by garbling the logic and evidence that the idea entails. Thus, humans may be designed as a result of evolution by selection to think illogically and unreasonably about politically loaded topics such as rape in biological perspective. The existence of the knowledge destroyer would be supported by evidence that people with various ideologies that most oppose evolutionary ideas being applied to people's behavior would show significantly greater lapses of reason when evaluating a sequence of logic in an evolutionary vignette involving human behavior than when evaluating logic in other types of vignettes. It may be that the knowledge destroyer also is behind the great difficulty many people have understanding the fact that culture and biology are not a dichotomy and that in reality culture is biology. Culture is the behavior of people in a place and time and

biology is the scientific study of all life, including all behavior.

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