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## **Is There Psychological Adaptation to Rape?\***

*Abstract:* Psychological adaptation underlies all human behavior. Thus, rape could either arise from a rape-specific psychological adaptation or it could be a side-effect of a more general psychological adaptation not directly related to rape. The rape-specific hypothesis and the incidental effect hypothesis are explained. Determining the specific environmental cues that men's sexual psyche has been designed by selection to process will allow us to decide which of these two hypotheses is true. I focus on rape, and briefly look at other types of sexual coercion, such as sexual harassment and incest.

This paper outlines a hypothesis about coercive sexuality derived from theoretical (evolutionary) biology: that men's coercive sexuality reflects sex-specific psychological adaptation to rape, that is, psychological features of men designed by a history of evolution by selection in the context of coercive sex and having the evolutionary function of motivating and regulating men's coercive sexuality. If this hypothesis is true, there must exist design for rape itself in the psychology of men's sexual motivation and action. Rape stems from psychological adaptation. However, it has not been determined if rape is an incidental effect of psychological adaptation to circumstances other than rape or is due to psychological adaptation to rape itself. I discuss the natural history of men's coercive sexuality, laboratory studies of men's sexual arousal, and other information on men's sexuality in light of the hypothesis that the sexual psychology of men contains psychological design for the purpose of rape. Current knowledge of the coercive sexuality of men is consistent with this hypothesis but cannot demonstrate adaptation to rape. Whether or not there is adaptation to rape in the psychology of men, research on the evolved design of men's sexual psychology could lead to a much better understanding of rape because such research can identify the specific environmental information that the sexual psychology of men processes and therefore the circumstances that determine the use of coercive sex by men. In this paper, I focus on rape, although I briefly look at other types of sexual coercion, such as sexual harassment and incest.

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### **1. Background Information**

Before I discuss men's sexual coercion and how it bears on the hypothesis of psychological adaptation to rape, I discuss briefly some background information that is necessary for understanding the adaptationist approach, the approach used by biologists to study the design of organisms.

Adaptation refers to the complexly organized, goal-directed or purposeful phenotypic features of individual organisms (see Thornhill 1990, for review). Adaptations are properties of individuals and not of families, populations or other groups (Williams 1966). Adaptations are the long-term products of evolution by selection. Although there are several agents of evolution – that is, natural processes that are known to cause evolution or changes in gene frequencies of populations – only selection can make phenotypic design or adaptation.

Selection is non-random differential reproduction of individuals. When it acts in a directional, cumulative manner over long periods of geological time, it creates complex phenotypic design out of the simple, random genetic variation generated by stochastic evolutionary agents (such as drift and mutation). Selection acts on differences among individuals in fit to their environments, thereby accumulating genes that (through ontogeny) lead to traits that fit individuals to their environments. An adaptation, then, is a phenotypic solution to a past environmental problem that persistently impinged on individuals for long periods of evolutionary time and thereby caused cumulative, directional selection, which in turn caused cumulative, directional change in the gene pool. Evolution by selection is not a purposive process but by gradual, persistent effects incorporates purpose into adaptations.

Adaptation is identified by a phenotypic feature that is so complexly organized for some apparent purpose that chance cannot be the explanation for the feature's existence. Thus the feature cannot merely be the chance by-product or incidental effect of an adaptation or the product of random genetic drift. The feature has to be the product of long-term evolution by directional selection. Once a true adaptation is recognized and its apparent purpose perceived, the next step is to examine in detail and fully characterize the functional design of the adaptation to determine the adaptation's actual evolutionary purpose. An adaptation's evolutionary purpose means specifically how the adaptation contributed to reproduction of individuals during its evolution or, put differently, the precise relationship between a phenotypic trait and selection during the trait's evolution into an adaptation. A phenotypic feature's current adaptiveness (i.e., its contribution to offspring number now) has no bearing on identifying adaptations, or the selective background of adaptations (for full discussion of the study of adaptation, see Thornhill 1990; Williams 1992).

### **2. Evolutionary Psychology and Rape**

Psychological adaptation causally underlies all human feelings, emotion, learning and behavior (Cosmides/Tooby 1987; Symons 1987a). Psychological change and

behavior are the products of the processing of environmental information by psychological mechanisms. In turn, psychological mechanisms reflect psychological structure and design. Thus, rape must reflect psychological adaptation (Thornhill/Thornhill 1992a). The most important empirical challenge in understanding rape is determining if the psyche of men includes psychological adaptation to the circumstance of coercive sex itself or if rape is an incidental effect of the combination of coercive psychological adaptation to the non-sexual domain of human life and non-coercive sexual psychological adaptation of men. Men's sexual coercion is output of psychological adaptation. This is certain, not hypothesis. The two evolutionary or ultimate hypotheses are that 1) rape reflects psychological adaptation for rape, or 2) rape is an incidental effect of psychological adaptation to domains other than rape. These two hypotheses exhaust the possibilities that can scientifically explain why sexual coercion exists (Thornhill/Thornhill 1992b).

The hypothesis of psychological adaptation to rape contends that there are psychological mechanisms that function specifically for the purpose of rape because they were designed by selection acting on males in the context of coercive sexuality. More specifically, the selection assumed by the hypothesis is as follows: During human evolutionary history, non-random differential offspring production by adult males occurred in the context of sexual access to reproductive-age females who were unwilling to mate. By implication, males whose psychological machinery sexually motivated them to be sexually aroused by, to pursue, and to mate with unwilling females are our evolutionary male ancestors.

Whether or not there is psychological adaptation to rape, rape cannot be fully understood by ideas that are not explicit about the psychological adaptations that control men's sexual motivation and action. Psychological adaptations are information-processing mechanisms that provided solutions to information-processing problems that influenced reproductive fitness during human evolution. As a result of selection during long-term human evolution, human psychological adaptations are specially engineered for processing non-arbitrary environmental information and thereby guiding behavior toward adaptive ends (ends that promoted fitness in the evolutionary past, but there is no assumption or requirement of current adaptiveness). This psychological information processing is conducted by psychological adaptations of perception, memory storage and retrieval, cognitive analysis, and so forth. Psychological adaptation and design is characterized in evolutionarily functional terms by the kind of information processed and not by neurophysiology or neuroanatomy (Cosmides/Tooby 1987; Tooby/Cosmides 1989); this means that the precise environmental conditions that affect men's coercive (and non-coercive) sexuality will be elucidated only by discovery of the cues that the sexual psychology of men is designed by selection to process (also Thornhill in press).

### **3. Sex-specific Psychological Adaptation**

Implicit in my use of the term *sexual psychology* of men is the assumption that the sexes differ in psychological design in the domain of sexual matters. It is often assumed in the social and behavioral sciences that human psychology is entirely sexually monomorphic in design and is composed of only a few general-purpose learning adaptations (Symons 1987a; 1987b). Given current knowledge of the functional specificity of the vast numbers of adaptations whose functional design is understood (the human heart, for example, is specially designed to pump blood in the human body), as well as theoretical advances in understanding how selection works in molding adaptations as specific solutions to specific environmental problems, it is most likely that the aspect of the human psyche involved with sexual matters is sexually dimorphic. The human psyche is undoubtedly composed of many highly specialized adaptations. Some of them are designed to process information (some of it through learning) that is specific to the very different sexual problems males and females have faced in human evolutionary history (Symons 1987b).

This sexual dimorphism stems from the fact that in humans there is a large sexual asymmetry in the minimal reproductive effort required for the production of offspring. The minimum for a man is a few minutes of time and an energetically cheap ejaculate; the minimum for a woman is nine months of pregnancy and a long period of lactation. This sexual asymmetry during human evolution resulted in males who could gain sexual access to multiple females, outreproducing males who could not. The strong selection on males in the context of competition for sexual access to many females led to the evolution of men's general behavior during interactions with potential mates, and because females were evolving under a different type of selection in the context of competition for mates and under selection to be choosy about mates, a major human sex difference is observed: compared to women, men are less discriminating about sexual partners – they are more motivated to seek copulation with many partners and more eager to include copulation as part of an interaction with the opposite sex. Selection acting on females in the context of competition for mates in human evolutionary history favored females who could gain access to males whose resources and genetic endowment promoted offspring survival. The selection on females associated with competition for multiple mates was weak relative to the same selection on males because sexual access to multiple females by males results in more offspring than access to multiple males by females. Women are more discriminating of mates than men because in human evolutionary history, females made a larger minimal investment in offspring (thus losing more reproductive potential than males from a poor mate choice), which resulted in stronger selection on females than on males for mate choice. Furthermore, in humans, females are the objects of more sexual competition than males (and must have been in human evolutionary history as well, given evolved male sexuality); thus females have a greater opportunity than males to choose. (For orientation to the literature on the

evolution of human sex differences, see Symons 1979; 1987b; Smith 1984; Buss 1987; 1989; Townsend 1987; 1989; Thornhill/Thornhill 1992a; b.)

Because of the different ways that selection in the context of sexual matters acted on males compared to females during human evolutionary history, evolutionary psychologists believe that the human psyche contains a great deal of sexually dimorphic structure: sex-specific psychological adaptations specialized to deal with the sex-specific sexual environment.

#### 4. Is Rape Learned? Is It Heritable?

Learning is often used in the social science literature on rape as if a useful or complete explanation is provided by labeling men's and women's sexual behavior as 'learned' (for reviews see Russell 1982; 1984; Ellis 1989). Such a view goes against scientific knowledge of ontogeny in two ways: it trivializes the reality of the causal gene-environment interactions during the ontogeny of the behaviors that are subject to the label 'learned', and it ignores the vast number of necessary experiences during the ontogeny of any behavior typically referred to as 'learned', only a very small number of which would be candidates for the label 'learned'. The term *learned* is too simplistic by itself to warrant its use as the only or most important causal explanation of any human behavior. Sexual behavior of an individual human develops as the product of the intimate and inseparable interaction of both genes and environment. Social learning is only one of a very large number of necessary environmental influences during the development of the sexuality of a woman or a man. (An excellent overview of the current understanding of ontogeny as it applies to human sexual development is provided by Daly/Wilson 1983, chap. 10.)

I emphasize that the view of men's sexual psychology proposed by the hypothesis of adaptation to rape does not imply the absence of learning. Social and cultural learning experiences during the ontogeny of men's sexuality are central to this perspective; however, the learning process involved is not arbitrary but instead is guided by evolved sexual psychological adaptations that bring about selective perception, cognition, memory, and information evaluation specific to rape.

There is significant interest in the literature of human rape in the issue of the heritability of rape (see Ellis 1989 for review, especially 86-88). *Heritability* is a term that describes the extent to which the variation among individuals in a phenotypic trait is caused by genetic, as opposed to environmental, variation among individuals. (Note that the term *heritability* does not apply to the traits of an individual. The dichotomy between genetics and environment cannot be applied to the features of an individual.) I emphasize that the hypothesis of adaptation to rape does not imply that rape is heritable. That is, the hypothesis does not imply that variation among men in inclination to rape reflects genetic differences. Rather, there is adaptation to rape, and adaptations are species-typical features whose genetic underpinnings involve genes that are virtually fixed or

invariant in the human gene pool. Thus the hypothesis of psychological adaptation to rape predicts that the heritability of the psychological design for rape will be near or at zero. This is not to say that male personality features that may contribute to rape (such as aggression) are not heritable; some may be (Ellis 1989, 86-97), but the heritability of personality features is not relevant to the issue of whether there exists adaptation to rape.

The hypothesis of adaptation to rape proposes that the psychological rape adaptation regulates men's use of coercive sexuality in a facultative way, which is dependent on environmental conditions. During human evolution the causal environmental conditions or cues were associated with adaptive use of rape by human males. The salient variation, then, in men's use of coercive sexuality is predicted to be dependent on variation in the environments experienced by men.

### **5. Mating Strategy of Men**

According to the hypothesis of adaptation to rape, rape is a sex-specific, species-wide aspect of the evolved mating strategy of men (Shields/Shields 1983; Thornhill/Thornhill 1983). Men's mating strategy consists of three tactics: honest advertisement and courtship, deceptive advertisement and courtship, and coercion. Coerced matings are those achieved by physical force or by explicit or implicit threat of physical or social malice.

The general sex difference in mating strategy can lead to disparity in the evolved self-interests of men and women about whether mating should occur and its timing and frequency of occurrence. Because women are more selective of mates and more interested in evaluating mates and delaying copulation than men, in order to achieve sexual access men often must break through feminine barriers of sexual hesitation, equivocation and resistance (see Kirkendall 1961 for a review of human heterosexual sexual interactions). Men get women to comply with their wishes to copulate by using all three tactics of their mating strategy. These tactics can be used singly or together in pursuit of single matings.

### **6. Coercive Sexual Behavior of Men**

It is clear that men frequently include the pursuit of sexual access by coercion in their repertoire of sexual behavior. There is no question that many men's sexual repertoire is a mix of non-coercive and coercive, including physically coercive, approaches.

In addition, men often pursue single matings by using a mix of tactics. It is erroneous in general to dichotomize copulations into those resulting from honest versus deceptive courtship or from force versus non-force. Courtship and the interactions associated with maintenance of pair-bonds include explicit and implicit promises about commitment that are not always realized, in part because of lack of positive intention (Kirkendall 1961). I suggest that a forced versus unforced dichotomy may apply only to a small subset of human copulations – for

example, when a man without any sexual negotiation or honest or deceptive courtship uses physical force or the threat of physical harm to capture and copulate with a woman against her will. The legal system in modern societies is concerned with whether an alleged forced copulation was or was not legally forced, because the answer determines if the crime of rape was committed. The difficulty that the legal system has in distinguishing forced from unforced sexual intercourse illustrates the problem with the concept of rape that results from the use of the combination of the three mating tactics by men to secure single matings.

Not only are the three mating tactics used in combination to obtain single copulations, making the distinct dichotomies of honest versus deceptive courtship and forced versus unforced copulation typically unrealistic, the three tactics grade into each other to the extent that there are only arbitrary boundaries between them. Viewing the three tactics as objective and distinct categories that lead to copulation does not accurately describe the sexual behavior of humans. Sexual coercion or non-coercion is a continuum. The literature dealing with rape by husbands, boyfriends and dates (Kirkendall 1961; Russell 1982; Pirog-Good/Stets 1989; see review in Thornhill/Thornhill 1992a) clearly demonstrates that there is often no distinct, objective boundary between coerced and non-coerced matings and that sexual coercion of one form or another is often characteristic of men's pursuit of sexual access. In humans, courtship and the interactions of pair-bonded mates surrounding copulation may include male violence toward a mate or her offspring, or explicit or implicit threats of male violence, that grade into displays and vows of emotional commitment by a man. Most commonly, however, explicit or implicit threats of unpleasant, non-violent consequences (such as a man's withdrawal of financial support or emotional involvement), rather than actual or implicit male violence, grade into non-coercive male activity during male-female interactions leading to copulation.

The occurrence of only an arbitrary line between forced and unforced matings by men suggests that actual or threatened coercion probably is a significant factor in the events leading to a large percentage of human copulations. I suggest that it is the continuum between forced and unforced copulations, even more than the combination of sexually coercive and non-coercive tactics during pursuit of single copulations, that creates the great difficulty in all endeavors to deal with the concept of rape, whether in the legal context or everyday life.

Behavior provides a window to psychological adaptive design because it is a manifestation of psychological adaptations. The general mating strategy of men often includes sexual coercion, and sexual coercion of one form or another may be involved in most matings in humans. Thus, it would seem that obtaining sexual intercourse by coercion is as much a part of men's sexual behavior as men's use of non-coercive sexual approaches. In sum, the sexual behavior of men is consistent with the existence of psychological adaptation for the purpose of rape. However, current knowledge of men's sexual behavior does not provide evidence of psychological adaptation to rape itself. It is conceivable that the widespread use of coercive sexual behavior by men is an incidental effect of species-typical adaptation to coerce desired rewards and sex-specific adaptation to copulation.

### **7. Conditions Influencing Rape Motivation**

The evolutionary theory of individual 'interests' is based on evolved self-interests (Alexander 1987; Daly/Wilson 1988). In general, the evolutionary theory of individual self-interests leads to the expectation that men will be motivated to force or otherwise coerce copulation when their evolved individual interests are served; a woman's evolved interests surrounding mating should be considered by a man only when in so doing his own interests are served. There is a continuum of overlap of evolved self-interests – from no overlap to considerable overlap – between men and women who socially interact. It is this continuum that the hypothesis of adaptation to rape predicts will conditionally influence a man's sexual motivation to pursue coercive sexual behavior with individual women. As the symmetry of evolved self-interests of heterosexual interactants declines, the probability of sexual coercion by men is expected to increase. This prediction, if met, would imply precise psychological regulation of men's motivation to use sexual coercion and thus a sexual psychology that includes features designed for rape.

Consider asymmetry and congruence in the evolved self-interests of pair-bond mates. Two important factors that promote similarity of interests between men and women in mateships are offspring of genetic parentage shared by the male and female of a mateship and the woman's sexual fidelity; these two factors are interrelated. Men must provide resources and other benefits in order to achieve sexual intercourse with consenting mates because women's sexual attraction to men is strongly tied to men's status and resources (Symons 1979). When a man provides abundant resources to a mate and her offspring, the woman's evolved interests are served, and it is expected that this will reduce or eliminate the woman's motivation to seek alternative mates. Under such conditions, conflicts of interest (thus coercion of one party by the other) should be minimal. Infidelity by a pair-bonded woman leads to uncertain paternity for her mate and thereby causes a divergence of evolved interests of pair-bond mates. When women perceive that their evolved self-interests are not served by a pair-bond mate, they are expected to pursue alternative mates, to show a decline in emotional commitment to the pair-bond mate, and to exhibit less sexual interest in and less sexual arousal with the pair-bond mate. It follows from this reasoning that pair-bonded men are expected to have evolved to view a reduction or absence of sexual interest (inasmuch as this interest reveals commitment and fidelity; see Thornhill/Thornhill 1992a) of a mate as circumstantial evidence that she has or may have another mate. Thus, the hypothesis of adaptation to rape predicts that pair-bonded men will be motivated to coerce sexual intercourse with mates when men suspect or discover infidelity. There is evidence in the literature on marital rape supporting this prediction (Russell 1982; Thornhill/Thornhill 1992a).

Besides variation in conflicts of interest over sexual matters between men and women, the hypothesis of adaptation to rape predicts several other environmental conditions that should impinge on men's willingness (or unwillingness) to engage in overtly coercive sexual interactions (Thornhill/Thornhill 1992a), among them age and social status of men. Young men (mid-teens to early twenties) are those



who are in the age range of most intense mate competition and highest risk taking and mortality because they are attempting to enter the breeding population (Alexander 1979; Thornhill/Thornhill 1983; Wilson/Daly 1985; Trivers 1985). Because sexual competition is greater and mortality more likely in young than in older men (leading to the perception by young men that risky behavior is of low cost), the use of coercive sex is expected to be more consistent with the evolutionary self-interests of young compared to older men; thus, young men are predicted to feel that coercive sex is justifiable for themselves and to exhibit more motivation to use coercive sex.

The hypothesis also leads to the expectation that men's motivation to pursue coercive sexual intercourse will be related to men's social class. Women prefer men of high social and economic status as mates (Symons 1979; Buss 1987; 1989; Townsend 1989). Sexual access to preferred mates (young and attractive) is thus positively correlated with the status, resource holdings and prestige of a man. This correlation has been demonstrated repeatedly in industrial societies (Buss 1987; 1989), in traditional societies (Betzig 1985; Betzig/Mulder/Turke 1988), and in the historical record (Betzig 1985). Because of the correlation between male status and access to preferred mates, it is predicted that low socioeconomic status men will have a more permissive and motivational attitude toward their own use of rape.

This discussion highlights our view that the hypothetical rape adaptation regulates men's motivation to use coercive sex in a conditional manner. Men's sexual psychology is designed by selection to process environmental information pertaining to sexual matters. The conditions discussed indicate the complexity and specificity of some of the information that the hypothesis of adaptation to rape predicts should be important in motivating coercive sex of men (Thornhill/Thornhill 1992a). Thus, the hypothesis predicts the existence of psychological mechanisms designed specifically to control men's coercive sexual pursuits.

## **8. Men's Sexual Motivation**

The view that men's sexual psyche contains adaptation to coercive sexual access predicts that their use of non-coercive and coercive mating tactics will be associated with high levels of sexual arousal and competence. However, if men are sexually aroused only or primarily when they perceive that a potential mate is interested in coitus or if significant sexual arousal in men requires perception of non-resistance in a potential mate, the psychology of sexual motivation is not designed by selection to achieve copulations with women who are sexually uninterested or actively resistant; that is, the idea that men have psychological adaptation to rape is false.

There is an extensive literature on men's sexual arousal to audio and sexual stimuli in the laboratory setting (Thornhill/Thornhill 1992a; Malamuth 1981; 1984). The studies generally take one of two forms. Either the research design includes men incarcerated for sex crimes (typically rape) and compares their

sexual responses with those of male volunteers from the general population in an effort to determine rapists' sexual arousal patterns (or compares rapists' sexual arousal to rape versus non-rape scenarios), or the studies utilize male student populations and measure their sexual responses to coercive and non-coercive sexual scenarios in an effort to measure propensity to rape. Sexual response in the studies is measured by self-reported arousal, by a phalometric device, or by both. The studies manipulate not only sexual coerciveness and non-coerciveness apparent in the video or audio stimuli but, in various combinations, violence, depicted female sexual arousal, and sex of the person reading the stimulus story (in the case of audiotapes). Other factors are manipulated as well, depending on the study, including the type of instructions given to participants (for example, the instructions might include a statement indicating that response to unusual sexual stimuli is normal) and alcohol consumption or belief of alcohol consumption by participants.

I reviewed more than fifteen lab studies encompassing some aspects of the described experimental designs. The studies that compare rape offenders' responses to coercive and non-coercive sexual stimuli show that rapists are equally aroused by both coercive and non-coercive sex. Moreover, these results are generally comparable for non-rape offenders. The studies collectively imply that young men, in general, are as sexually motivated, as measured by sexual arousal in the laboratory setting, by explicitly sexual stimuli depicting mutually consensual heterosexual sex as they are by sexual stimuli depicting coerced sexual interactions, including physically forced sexual assault. Some young men in the studies show some initial inhibition in sexual response to rape depictions; however, in general, these inhibitions can be removed easily by each one of the following: (1) sexual arousal of the depicted rape victim, (2) alcohol consumption or mere belief of alcohol consumption, (3) instructions that sexual response to unusual stimuli is normal, (4) rape depiction being narrated by a woman rather than a man, and (5) not requiring men to self-report their sexual arousal while their arousal is simultaneously being assessed by phallometry. In other words, even when young men initially have a restrictive rape ideology and view coerced sex as unacceptable, the specific conditions surrounding sexual coercion can disinhibit the restrictions, allowing a more permissive and motivational rape psychology to emerge. Sexual arousal of women in rape depictions is only one of several conditions that disinhibits men's sexual arousal to rape depictions; moreover, the victim's arousal in rape depictions is not necessary for men's sexual arousal to the depictions.

Often laboratory studies are contrived and may not be relevant outside the laboratory. There is some evidence that men's sexual response to the laboratory portrayals may be related to actual sexual behavior of men, including coercive sexual behavior. First, research reviewed in Thornhill and Thornhill (1992a) shows that sexual arousal of male undergraduate college men (both for penile tumescence and self-report) to rape depictions in the laboratory is consistently and significantly positively correlated with reported personal use of force against women in sexual relations and reported likelihood of committing forced sexual behavior in the future. Second, penile tumescence reaction to audio and video

stimuli is, in general, felt to be the best method of identifying the sexual preferences of men with preferences such as homosexuality, bisexuality or pedophilia who seek psychiatric assistance to help them with their sexual interests and behavior (Greer/Stuart 1983; Langevin 1983). Third, the sexual arousal of men with homosexual, bisexual or pedophilic sexual preferences to laboratory depictions seems to be correlated with their history of actual sexual behavior (Langevin 1983). Finally, the typical mate preference of heterosexual men is young women (Symons 1979; Thornhill/Thornhill 1983; Buss 1987; 1989; Townsend 1987; 1989). Laboratory studies of sexual arousal reveal that heterosexual men show the greatest penile response to women who are typically portrayed as 18 to 25 years old in the studies, and significantly less response to pubescent or prepubescent girls (Langevin 1983).

The information on men's sexual responses in the laboratory to coercive and non-coercive sexually explicit scenarios is intriguing and indicates a male sexual psychology that does not require female consent for arousal. Such a male sexual psychology is exactly that expected to exist if men possess psychological adaptation to rape.

These studies deal only with the dimension of sexual motivation pertaining to penile erection and not the aspects of sexual motivation pertaining to the actual initiation and performance of sexual coercion. There are no reliable data on the comparative sexual competence of men in coerced and non-coerced sexual settings. I have evaluated critically the literature on sexual dysfunction of rapists elsewhere (Thornhill/Thornhill 1983) and will not reevaluate this literature here except to point out that the literature on 'premature' ejaculation and sexual impotence during rape is based on alleged or convicted rapists and is therefore biased and cannot be used for evaluating the sexual performance of men in general during coercive sexual interactions. The most relevant point pertaining to the sexual competence of men under conditions of sexual coercion is that many men achieve sexual intercourse by coercion, including physically forced sexual access, according to the literature on acquaintance rape, rape by boyfriends and husbands, rape of children, and homosexual rape in prisons. Indeed, men's widespread use of coercion to achieve sexual intercourse suggests widespread general sexual competence of men in the context of forced sex.

The laboratory studies and the widespread sexual competence of men during sexual coercion, however, do not demonstrate adaptation to rape. To demonstrate adaptation to rape, it must be shown that there is design specifically for the purpose of rape. It is phenotypic design for a specific purpose that eliminates alternative hypotheses of incidental effect.

Earlier I outlined some conditions that I expect influence male motivation to engage in coercive sexual interactions. Studies of the integration between the sexual motivation of men and their other motivational states that eliminate or strengthen their coercive sexual motivation can be used to determine if there is predictable psychological regulation of men's coercive sexuality. Sophisticated regulatory machinery to achieve a specific purpose is the hallmark of special-purpose adaptation.

## 9. Rape: Multiple Motives

The hypothesis of psychological adaptation to rape may seem questionable on the basis of certain current opinion about the motivation behind rape. The question of whether rape is a sexual act, a violent act, or an act of male domination of a woman is a central theme in a large literature that has grown out of the important place of rape in the feminist movement (Shields/Shields 1983; Thornhill/Thornhill 1983). The major error in this debate is that the motive behind rape is viewed as either sexual or violence and domination.

Like any other human behavior, motivations for rape are numerous. The motivation that leads men to rape, whether by physical force, threat of physical force, or other forms of coercion, usually includes the desire to copulate or otherwise have a sexual experience. In the data set of McCahill, Meyer, and Fishman (1979) involving 1,401 victims of heterosexual rape in Philadelphia, 83 percent reported penile-vaginal intercourse. Repeated intercourse by the same offender occurred in about 25 percent of the cases. Cunnilingus, rectal intercourse, and acts of penile-labial contact without vaginal penetration were rare (6 percent, 5 percent, and 6 percent, respectively). Rape victims are unlikely to view the rape as a positive sexual experience (e.g., Finkelhor/Yllo 1985), but this is not the key factor here. The issue is whether men in part are sexually motivated to rape. The answer is that they usually behave as if they are motivated to rape by the desire to have a sexual experience, which typically includes copulation.

Furthermore, the vast majority of heterosexual rapes involve young women. This is the case for reported (Thornhill/Thornhill 1983) as well as unreported heterosexual rapes (McDermott 1979; Russell 1984; Belknap 1989). In addition, recent analysis of the McCahill, Meyer and Fishman data reveals that penile-vaginal intercourse during sexual assaults almost always occurs when victims are of reproductive ages (12 to 44 years old), but penile-vaginal intercourse is relatively uncommon when sexual assault victims are of pre-reproductive or post-reproductive ages (Thornhill/Thornhill 1991). The sexual interest of heterosexual men is focused on young women. That rapists primarily rape young women is congruent with the idea that sexual attractiveness is a contributing factor underlying rape behavior. Even in the case of sexual assault of post-reproductive women, children and men, a sexual motive cannot be excluded automatically. Some men copulate with domestic livestock, artificial vaginas and plastic dolls; some men masturbate with vacuum cleaners. Surely desire to have a sexual experience is a component of all sexual behavior and interest of men.

Rape also frequently occurs in a motivational setting of male violence. For example, McCahill, Meyer and Fishman (1979) found that a majority of victims (64 percent) reported being pushed or held during the incident; victims are often slapped (17 percent), beaten (22 percent) and/or choked (20 percent); and 84 percent of victims experienced some kind of non-physical force during the incident (such as threat of bodily harm). Chappell and James (1976) reported that 78 percent (of 100) incarcerated rapists who had used violence during the sexual assault said they desired the victim to "give up and do anything," indicating that

violence allows the rapist to achieve a sexual physical experience that can be achieved in no other way. It is remarkable that the incidence of rape-murder is not higher than it is (see Thornhill/Thornhill 1983) given that physical violence is a frequent mechanism by which forced sexual access is achieved, at least for incarcerated rapists.

I hypothesize that the sexual motivation of men and their motivation to dominate and control the sexuality of mates are functionally integrated in the sexual psychology of men as a result of evolution by selection. This psychological integration is a sex-specific and species-wide adaptation. I interpret men's striving to dominate and sexually please mates as aspects their general striving to control the sexuality of women in order to increase probability of paternity. (See Dickemann 1981; Daly/Wilson/Weghorst 1982; Smith 1984; Daly/Wilson 1988; and Flinn 1988 for discussion and evidence of the importance of mate control by men and selection in the context of paternity confidence in human evolution). I contend that the evolutionary function of the integration of the psychological mechanisms of sexual motivation and control of mate's sexuality is promotion of discriminative investment in mates by men, with increased investment by a man in a mate whose sexuality is controlled and thus more likely to produce that man's offspring and not another's. Note that I am not arguing that men's sexual arousal requires domination and sexual control of a mate. Instead I am arguing that domination and sexual control of a mate will facilitate the sexual arousal of men in both coercive and non-coercive situations.

I suggest that violence *per se* will not be sexually stimulating for men but that men will find aggressive as well as non-aggressive control of a mate's sexuality to be sexually facilitating. I have reviewed the relevant aspects of the literature on the relationship between sexual motivation of men and non-sexual and sexual violence. Men (rapists and non-rapists) are not sexually aroused in the laboratory by depictions of violence that lack sexual content. However, there is evidence that heterosexual men are sexually aroused by stimuli in the laboratory setting that portray aggression toward and domination of a woman by a man in the sexual context (Thornhill/Thornhill 1992a).

The prediction that men will find stimuli of aggressive – including violent – control of women's sexuality to be sexually facilitating is also supported by the common inclusion in best-selling erotic magazines (Malamuth/Spinner 1980) and in hard-core erotica (Dietz/Evans 1982) of sexual violence with women as victims and men as perpetrators. According to the President's Commission on Obscenity and Pornography (1970), the pornographic magazine and movie business caters to the average man and not just to men with anomalous sexual preferences. This implies that many men are sexually motivated by vicariously assuming physical control over their sexual partners while fantasizing with pornographic material.

The prediction is supported also by the frequent observation that rapists (including pedophilic rapists) commonly report that their domination of the victim and the associated feeling of power that they have over the victim is sexually stimulating (see Thornhill/Thornhill 1992a).

Earlier I mentioned that men's sexual arousal to audio and video depictions of rape in the laboratory is strengthened by sexual arousal of the rape victim. The female victim's arousal is a common theme in pornography portraying rape (Malamuth/Spinner 1980; Dietz/Evans 1982). This suggests also that women's sexual responses are facilitators of the sexual motivation of men when viewing forced-copulation depictions. I suggest that the sexual response of victims in rape depictions is sexually stimulating to men because it implies control of the woman's sexuality. I feel that this interpretation will apply to the sexual arousal of men in both forced and unforced sexual settings.

This view of the functional integration of the sexual motivation of men and their motivation to dominate and control mates implies that desire to control the victim may be as common a motive behind rape as is the desire to have a sexual experience. I would be very surprised if men are not frequently elated and sexually stimulated by their control of and dominance over sexual partners to whom they can gain access only by coercion. I would be equally surprised if this were not also the case in mutually consensual sexual interactions.

The motivations behind rape, just like any other human behavior, are complex, multifaceted and intertwined. In part, the psychological drive that leads to rape is sexual; the rapist seeks an experience of sexual gratification. The other motivational states of rapists – violence and domination and control of victims – are expected to be, from the evolutionary approach I have proposed, components of the overall motivation of forced copulation. Humans have evolved to seek proximate rewards and avoid proximate punishments that correlated with individual reproductive fitness in *evolutionary history*. The motives of sex, violence and domination are exactly the proximate motives expected to be associated with rape if selection has produced in men psychological adaptation to rape. Note that evolutionary biology does not predict that any organism, human or otherwise, is motivated to pursue inclusive fitness per se, or to pursue reproductive success.

## **10. Conclusions**

In order to qualify as an evolutionary adaptation, a feature of an organism must meet the criterion of design for a specific purpose and not be explicable by chance. Thus, if men have adaptation to the circumstance of rape, there should be evidence of design for rape. In men's psychology of sexual motivation and action, there are features that suggest design for coercive sexuality: the complex of emotional-motivational-cognitive physiological mechanisms that cause and regulate men's sexual arousal and action in the context of dealing with sexually unwilling and resistant partners.

The hypothesis that men's sexual psyche includes adaptation to rape is consistent with, and is not falsified by, the natural history of men's sexual behavior. The common use of coercion by men to achieve sexual access suggests that men's sexual psychology is adapted to motivate reproductively competent sexual performance regardless of whether mating is achieved by force or non-force. This

sort of sexual psychology of men is indicated also by laboratory studies showing similar or equal sexual arousal of men when exposed to audio or video depictions of rape versus mutually consenting matings.

Evidence for the existence of psychological adaptation to rape could derive from detailed information about the conditions that reduce or increase men's motivation to pursue coercive sex. For example, it is predicted that the likelihood of social detection and punishment of rape will reduce the motivation to pursue coercive sex for men (Thornhill/Thornhill 1992a). Age and social class of men are predicted to be important conditions, too. Moreover, rape in pair-bond mateships is predicted to be associated with actual or suspected infidelity on the part of the female member of the pair. Laboratory studies and other evidence indicate that heterosexual men's sexual arousal is facilitated by their control of women's sexuality, including violent control. This suggests functional integration in the psyche of men between sexual motivation and the motivation to control mates sexually, a design feature predicted by the view that men's sexual psychology contains adaptation to rape.

Much more information is needed to test the hypothesis that the sexual psychology of men includes adaptation to rape. The key to distinguishing between the incidental effect hypothesis and the hypothesis of adaptation to rape is determining if men's sexual psychology is designed to process rape-specific information. Such a design would demonstrate adaptation to rape. I believe that the experimental procedure that has been used to study the sexual arousal of men to audio and video stimuli in the laboratory (Malamuth 1981b; 1984) may be especially valuable for determining if men have adaptation to rape. Such studies potentially can control confounding variables precisely and therefore illuminate the actual information that men's sexual psychological adaptations are designed to process (Thornhill/Thornhill 1992b).

Commonly, the behavioral manifestations of men's sexual psyche have antisocial effects. Men produce essentially all the socially unacceptable, illegal and repugnant sexual behavior in the world (Langevin 1983; Finkelhor 1984), and almost all of this behavior has a coercive element. The usual manifestation of the coercive aspects of men's sexual psychology in men's behavior is in their sexual harassment of and pursuit of coerced matings with young women – stepdaughters, dates and other acquaintances, total strangers, and pair-bond mates – to whom they are not closely related genetically. Less common manifestations of this psychology in men's behavior are forced sexual access to children who are not related to the offender; genetic daughters, typically when they are young women; young men, who are preferred by homosexual men with androphilic (rather than pedophilic) orientation; and women of post-reproductive ages. The least common manifestations of this psychology in men's behavior are forced sex within non-human animals, genital exhibitionism and frottage (Langevin 1983). The salient feature in all these manifestations of psychology in men's behavior is the sexual arousal and action of men without partner's consent.

My guess is that the overwhelming preponderance of men as perpetrators of antisocial sexual behavior eventually will be explained in the ultimate or evolu-

tionary sense only by the existence in men of psychological adaptation to rape *per se*. However, regardless of whether rape is caused by psychological design specifically for rape or is a by-product of other psychological adaptation, I believe that many novel findings about coercive sexuality could result from exploration of the empirical implications of the hypothesis that men have psychological adaptation to rape.

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