

RISK OF FEMALE INFIDELITY AND MALE SEXUAL COERCION IN
INTIMATE RELATIONSHIPS:
AN EVOLUTIONARY PSYCHOLOGICAL PERSPECTIVE

By

Valerie G. Starratt

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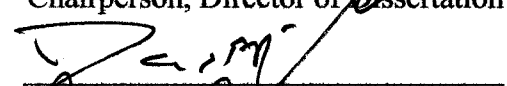
By
Valerie G. Starratt


This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Todd K. Shackelford, Department of Psychology, and has been approved by the members of her supervisory committee. It was submitted to the faculty of The Charles E. Schmidt College of Science and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

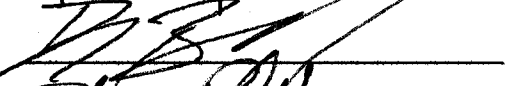
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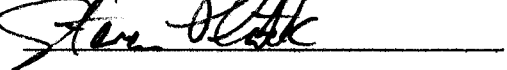


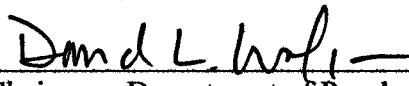
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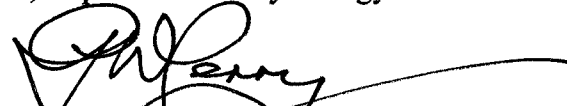




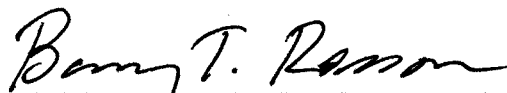




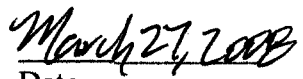
Chairman, Department of Psychology



Dean, The Charles E. Schmidt College of Science



Dean, Graduate Studies



Date

ABSTRACT

Author: Valerie G. Starratt
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Over human evolutionary history, men faced the adaptive problem of cuckoldry, or the unwitting investment in genetically unrelated offspring. As cuckoldry is potentially so reproductively costly, men may have evolved anti-cuckoldry psychological adaptations. Sexual coercion has been hypothesized as one class of anti-cuckoldry behaviors. By sexually coercing an intimate partner, a man may reduce the risk of cuckoldry by placing his sperm in competition with a rival male's sperm, should his partner have been sexually unfaithful. I will present three studies that investigate the role of female infidelity, an assessment of risk of sperm competition and subsequent cuckoldry, in predicting male sexual coercion in the context of an intimate relationship.

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CHAPTER ONE
THE BASIC COMPONENTS OF THE HUMAN MIND WERE SOLIDIFIED
DURING THE PLEISTOCENE EPOCH

Introduction

The focus of this dissertation is to further investigate the relationship between female infidelity and men's sexually coercive behaviors in the context of an intimate relationship. Previous research has proposed men's partner-directed sexual coercion as a class of anti-cuckoldry behaviors. Female sexual infidelity, the most common situation leading to risk of cuckoldry, has been consistently related to men's partner-directed sexual coercion.

The remainder of my introduction will introduce a brief overview of evolutionary psychology and sperm competition theory. Chapter 2 presents evidence from two studies of the relationship between men's partner-directed insults, specifically accusations of sexual infidelity, and men's sexually coercive behaviors. Chapter 3 presents evidence of the relationship between percent of time a couple spends apart, an indirect assessment of risk of female infidelity, and men's sexual coercion. Chapter 4 suggests that not all men sexually coerce their partners, even in the face of sexual infidelity, and presents evidence of the moderating effect of relative

mate desirability on the relationship between risk of female infidelity and male sexual coercion. Chapter 5 offers a brief summary of the arguments proposed in this dissertation, includes some concluding remarks, and provides directions for future research.

Evolution

Evolution by natural selection is the only known scientifically viable process capable of producing the complex construction of the human body and brain (see Dawkins, 1986). Natural selection is the process that acts on characteristics in a population in the presence of the following necessary circumstances: variation, heredity, and intra-species competition resulting in differential reproduction (Darwin, 1859, 1871; Mayr, 1982). First, a characteristic must exist in varied forms within the target population. Second, that characteristic must also be subject to heredity – have a genetic basis that can be transmitted from parent to offspring. The third specification is that the characteristic must also be differentially beneficial, such that some variations better aid in survival and reproduction compared to other variations. Individuals within the population who display the relatively more beneficial variations of that characteristic will out-reproduce those with other variations. Subsequently, the relatively more beneficial variations will be more likely to be spread throughout the species.

Darwin (1871) originally distinguished sexual selection from natural selection in an attempt to explain the existence of reliably developing characteristics in some species that appeared to serve not as a benefit, but as a hindrance to survival (most

notably, the peacock's tail). Sexual selection is concerned with reproduction, rather than survival. There are two components to sexual selection, intrasexual competition and intersexual competition. Intrasexual competition involves competition among members of the same sex for access to the most desirable mates. Deer antlers are an example. Large antlers allow males to intimidate and physically compete against one another for social dominance, access to resources, and access to the most desired females (e.g., Bowyer, 1986; Kucera, 1978). Intersexual competition, on the other hand, refers to differential mate choice of members of the opposite sex. The peacock's tail is a prime example. The large and vibrant peacock's tail is a hindrance to survival. It is an impediment when escaping predators, an obstacle when stalking prey, and physiologically costly to produce. However, it is incomparably helpful when attracting a mate. Peahens are most attracted to males with the most impressive plumage and so grant sexual access to high quality peacocks over those with less impressive trains (e.g. Petrie, Halliday, & Sanders, 1991; Petrie & Halliday, 1994). Here I present natural selection and sexual selection as two separate entities, although today both processes are often categorized under the term natural selection.

Evolutionary psychologists often speak of natural selection as responsible for "designing" the mind. This can be an unfortunate short-hand, as it is often misinterpreted as implying that natural selection acts with intent. Evolution, however, has no intent. Genes cannot see into the future to determine what will be beneficial later. The selection pressures that act on adaptations are not a unidirectional force pushing organisms from point A (amoeba) to point B (human). Rather, selection

pressures are a conglomeration of all the forces acting on an organism that impact the organism's survival or reproduction. These can include pressures to evade predators, pressures to capture prey, pressures to out-compete same sex rivals for access to the most desirable mates, or pressures from any number of other sources. Evolution is not deliberate in that it is not forcing organisms down a pre-determined, efficient path of species development. The genetic anomalies that produce differential behaviors occur randomly. It is just as likely that random mutation produces a gene coding for immunity to cancer as a gene coding for faster growing finger nails. The process through which some mutations survive natural selection and become adaptations, however, is non-random. An individual whose genes prevent cancer gains a significant advantage in survival and reproduction. It is likely that an individual with quickly growing finger nails shares no such advantage. Only those random mutations which lead to beneficial adaptations are consistently selected for and become spread throughout the species.

There are three distinct products of evolution by natural selection: adaptations, by-products, and noise. An adaptation is an inherited characteristic that reliably develops within a species and functions to solve a particular adaptive problem (Buss, Haselton, Shackelford, Bleske, & Wakefield, 1998, Thornhill, 1997, Tooby & Cosmides, 1990). An example of a physical adaptation is the umbilical cord. It is species typical (i.e. reliably developing in all members of a species) and serves the necessary function of transferring nutrients from a mother to her fetus. By-products do not serve a particular adaptive function, but exist as a direct result of an

adaptation. The associated by-product of the aforementioned adaptation would be the belly button. It serves no function, but occurs as a direct result of the necessary umbilical cord. Noise is random variation that exists within a population. It does not aid in survival or reproduction and is not directly associated with an adaptation. The shape of the belly button represents noise. The particular shape of one's belly button serves no function and is not directly related to any adaptation.

Evolutionary Psychology

Evolutionary psychologists attempt to define human behavior by identifying how humans lived during ancestral times and the adaptive problems they were likely to face. Critics of evolutionary psychology argue that it is impossible to know how early humans lived, so how can we possibly know what types of problems they faced? It is true that we cannot know all of the specifics of ancestral life. However, there are several aspects of ancestral life of which we can be certain. For instance, we can be certain that ancestral humans breathed oxygen and were subject to the laws of gravity. We can also be certain that ancestral women, and not men, bore children. This one fact alone produces an array of theories of human behavior. One of the most influential theories to develop from this is the theory of parental investment (Trivers, 1972). Given the biology of human reproduction, women are required to invest significantly more in the production of offspring than are men. At the very least, a woman must devote nine months to gestation and often several years of lactation and constant care to ensure the survival of one child. A man, on the other hand, need invest little more than an ejaculate. Because of the relatively large minimal parental

investment required of a woman and the relatively small number of possible offspring produced throughout her life, her best interest may lie in careful selection of a mate who is willing and able to provide resources for her and her offspring, thus increasing the likelihood of each offspring's survival. As such, women should demonstrate a preference for high status men with sufficient access to resources who appear willing to share those resources with her and her children. A man, on the other hand, is not limited by such restrictions. Should a man have sex with 100 different women, he has the possibility of siring 100 different offspring. Consequently, his best reproductive interest may lie in attracting as many mates as possible. This could be demonstrated by a willingness to engage in casual sex with a wide variety of women. There is a large body of evidence supporting the existence of these sex differentiated mating strategies (Buss, 2003).

Evolutionary psychologists investigate psychological adaptations. Psychological adaptations, often referred to as Evolved Psychological Mechanisms (EPM), have the following characteristics: (1) an EPM exists as it does because it solved a recurrent adaptive problem; (2) an EPM processes only the specific stimuli relevant to the particular adaptive problem it evolved to solve; (3) an EPM makes the organism aware of the particular problem it is facing; (4) the input received by an EPM is transformed into output via decision rules; (5) the output produced by an EPM can be physiological activity, information that becomes input to another EPM, or manifest behavior; (6) the output is directed to the solution of the specific adaptive problem that EPM functions to solve (Buss, 2005). In the venue of evolutionary

psychology, adaptations do not refer to the behaviors themselves. Rather, the adaptations are the psychological mechanisms—the biases that motivate individuals to perform certain behaviors that in turn served as solutions to adaptive problems.

Consider, for a comparative example, the physical adaptation of the human eye. The human eye evolved to be sensitive to a particular type of stimuli—light waves that fall in the visual spectrum. The human eye does not attend or respond to other types of stimuli, such as smells or even light waves that fall outside of the visual spectrum (e.g., infrared waves). Our eyes respond to light waves and not smell for much the same reason as our hearts pump blood instead of pumping blood *and* storing waste. One system performs one function. Our eyes respond to light waves instead of infrared waves because the stimuli most relevant to our survival and reproduction reside in that spectrum.

The human mind works in much the same way. There is a vast store of internal and external stimuli available to the mind. However, it would be impractical, if not impossible, for each part of one's mind to attend to all stimuli at once. Consequently, much the same way as the human eye focuses solely on light waves, the individual components of the human mind focus on particular sets of stimuli. The psychological mechanism that generates fear, for instance, responds only to fear relevant stimuli. If you come across a snake lying in your path, the stimuli associated with that snake will be processed by the psychological mechanism responsible for fear related stimuli. This psychological mechanism will then motivate any of a number of responses. Your physiological responses may include a change in heart

rate, breathing pattern, and diversion of physiological resources from digestion to muscle contractions. Your psychological responses may include an urge to run away or an unwillingness to move. It is likely, however, that you do not feel the desire to mate with the snake. This is because snake relevant information is processed by the psychological mechanism that evolved to solve problems associated with escaping organisms that could cause bodily harm, and *not* by the psychological mechanism that evolved to solve problems of mate selection.

But how do we know that fear is produced by an evolved psychological mechanism? Mineka and Öhman (2002) present four characteristics of fear that indicate it is produced by an evolved psychological mechanism. First, fear is most likely to be associated with stimuli that would have been ancestrally dangerous, such as snakes, spiders, and heights. This is not to imply that fear of a particular object or situation occurs in the absence of any learning. However, people appear to be more prepared to learn fear of ancestrally dangerous stimuli than evolutionarily novel stimuli. It is easier and quicker to condition fear in response to snakes, for instance, than to cars or damaged electrical outlets, even though all three items are considered dangerous in today's environment. Second, fear occurs automatically, that is without the need for conscious processing. This automaticity, however, has only been demonstrated in response to fear-relevant stimuli. The psychological mechanism that produces fear is not automatically activated in response to kittens, but can be automatically activated by spiders. Third, fear appears to be disconnected from higher level conscious thought. An individual who fears spiders may understand consciously

that a picture of a spider can cause no harm. However, this does not prevent the activation of a fear response. Finally, neurological research had demonstrated that the neural mechanism responsible for fear is seated in the amygdale—an evolutionarily old part of the brain that is shared with other mammals. These neural mechanisms also appear separated from neural mechanisms associated with learning material that is unassociated with fear.

Fear also exhibits the characteristics Buss (2005) describes as being true of all psychological mechanisms. *Characteristic 1: An EPM exists as it does because it solved a recurrent adaptive problem.* The fear of snakes helped to solve the recurrent adaptive problem of avoiding an animal that is potentially harmful or lethal. *Characteristic 2: An EPM processes only the specific stimuli relevant to the particular adaptive problem it evolved to solve.* When you encounter a snake, the fear mechanism is devoted to processing the information relevant to the snake. This information may include the size and shape of the animal, the nature of its movements, and its distance from you. The color of the flowers on the bush next to the snake, however, is information not relevant to the problem at hand and so is not likely to be processed in the same manner. *Characteristic 3: An EPM makes the organism aware of the particular problem it is facing.* Fear of the snake draws your attention toward the snake. It would be unproductive to direct your attention to irrelevant stimuli, such as the color of those flowers, while still in the presence of potential dangers associated with the snake. *Characteristic 4: The input received by an EPM is transformed into output via decision rules.* Encountering a snake does not

produce the same response regardless of the situation. Rather, the input of seeing the snake may pass through any one of a number of decision rules, such as “if the snake appears disturbed by your presence and looks as though it may strike, then run in the opposite direction” or “if the snake is very small and does not appear as though it can harm you, then continue along the path.” *Characteristic 5: The output produced by an EPM can be physiological activity, information that becomes input to another EPM, or manifest behavior.* Physiological responses to seeing a snake may include a change in heart rate, breathing pattern, diversion of physiological resources from digestion to muscle contractions, or any number of other responses designed to facilitate either fight or flight from the situation. If the snake is deemed non-harmful, then the information may be passed to another EPM. For instance, if it is determined that the snake is not harmful, and you are hungry, then it may be deemed a good dinner. The relevant information would then be passed to the EPM designated to solve the adaptive problem of food acquisition. *Characteristic 6: The output is directed to the solution of the specific adaptive problem that EPM functions to solve.* Suppose that the decision rules associated with encountering a snake determined that a behavioral response is warranted. What is a more beneficial response, to run as fast as I can in the opposite direction, or to sneeze? Running in the opposite direction would function to remove me from the dangerous situation, thus solving my problem. Sneezing, on the other hand, most likely would do nothing to help my situation.

Ultimate versus Proximate Causes of Behavior

Some critics argue that evolutionary psychology focuses too much on the ultimate causes of behavior, as opposed to the proximate causes of behavior. Ultimate causes of behavior are those defined by the adaptations addressing the adaptive problems facing our ancestors. For instance, an ultimate explanation for why you ate that double cheeseburger for lunch may be that your ancestors preferred foods that were rich in fat and so out-reproduced others who preferred less calorically dense foods. Proximate causes of behavior refer to the present environment in which the behavior occurs. Maybe you ate that cheeseburger because you were hungry and you happened to walk by a restaurant that serves cheeseburgers. An evolutionary psychological perspective, however, would then beg the question of why that cheeseburger existed in the first place? That cheeseburger existed because at some point someone realized that people preferred to eat, and would spend money on, fatty foods over other available foods. Why do people prefer to eat fatty foods? Because over human evolutionary history, individuals who preferred high calorie foods were more likely to survive and reproduce.

I do not argue that ultimate causes of behavior are the only causes of behavior. Rather, I argue that proximal causes *are not* the only causes of behavior. Ultimate causes of behavior are responsible for people's inherent biases. Proximal causes of behavior serve as the catalysts that trigger those biases to motivate certain behaviors. If the only causes of behavior were ultimate causes, then (ridiculous) logic would follow that certain human behavior would occur in the absence of any environment. Suppose a man exists in a void—a place of nothingness where there is no

environment with which he can interact. Would that man spend his days pantomiming behaviors such as eating and mating, even if there were no food to eat and no women with whom he could mate? If ultimate causes of behavior are the only causes of behavior, the answer would have to be an absurd yes.

The flip side of that argument is that proximate causes are the only causes of behavior. If evolution played no part in the development of adaptations and subsequent behaviors, then all human behaviors would be learned via socialization or trial and error and all behavior would be motivated solely by the current environment and past personal experience. We are what we are because of what we are taught. But if this were true, how would it explain phenomena such as a two-month old child's preference for attractive faces over less attractive faces (Langlois, Roggman, Casey, Ritter, Ries-Danner, & Jenkins, 1987)? Is the first two months of life sufficient to learn and develop a preference for social conventions of beauty?

If neither of the above extremes appears sufficient to explain human behavior, then there must be some integral interplay between evolved mechanisms and contemporary environments. Again, consider the example of the human eye. The structure and capabilities of the eye itself are a result of the evolutionary history of the stimuli presented to it. Today, our eyes are sensitive to light waves because that is what was most beneficial to our ancestors. However, individually, our eyes see what they see based upon our own current environment. We see what is in front of us at the moment. Our retinas are not burned with the images presented to our ancestors. The same is true of psychological mechanisms. Different components of the human mind

evolved to attend to particular stimuli that were especially relevant to solving particular problems facing our ancestors. However, the output of those mechanisms is not staunchly predetermined. Obviously, behavior is heavily reliant upon the current environment.

A related argument is that adaptations and the environment cannot be separated as distinct entities. Adaptations exist as they do as a direct result of past environments. The available stimuli supported the development of adaptations that attended to and solved problems associated with those stimuli. As a result, those stimuli became more salient to the organism and a larger factor in the surrounding environment. Thus, environments today exist as they do as a direct result of adaptive mechanisms. Environments and adaptive mechanisms are so heavily reliant upon each other that they cannot be rightly separated (Cronin, 2005).

It has been argued that an evolutionary psychological approach is ill-equipped to address the question of how multiple proximate causes can account for any given behavior (Downes, 2005). A proper understanding of the interplay between psychological mechanisms (ultimate causes of behavior) and the environment (proximal causes of behavior), however, belies this as a problem. Psychological mechanisms act as a set of decision rules for interpreting stimuli associated with an adaptive problem and motivating behavior according to what has been beneficial ancestrally in solving that problem. Let us address the particular example used by Downes (2005). A prominent adaptive problem is that of mate selection, or identifying and successfully attracting a member of the opposite sex for the purposes

of reproduction. Three separate hypotheses (in addition to several others) have been proposed to address the issue of how human males select high quality mates: waist/hip ratio, fluctuating asymmetry, and chemical signaling.

Singh (1993) reported that body fat distribution in women, as measured by waist-to-hip ratio (WHR), is correlated significantly with youthfulness, reproductive status, and long-term health risk. Men seem to have an evolved mechanism for attending to this information and preferring predictable variations, as they report women with low WHR (0.7), compared to women with higher WHR (0.8 to 1.0) as more attractive, healthier, and of greater reproductive value. Singh argues that WHR serves as a cue to men in solving the adaptive problem of mate selection.

A second purported cue to mate selection is fluctuating asymmetry (FA). Bilateral symmetry is hypothesized to be a marker of low parasite load, resistance to environmental stressors, and of overall “good genes” (e.g., Gangestad & Simpson, 2000; Thornhill & Møller, 1997). As such, recognition of and preference for potential mates with low FA should be reproductively beneficial. Grammer and Thornhill (1994), for example, reported that when presented with computer generated faces manipulated to display varying levels of FA, men reported that the female faces demonstrating low FA were more attractive and sexy. So, FA also appears to serve the function of mate selection.

The third mate selection tactic is chemical signaling. Major histocompatibility (MHC) genes are important for immune system functioning and benefit from being paired with dissimilar MHC genes. As such, an individual whose mate is MHC

incompatible (i.e., had MHC genes different from his or her own) would be more likely to produce offspring with stronger immune systems and a higher likelihood of survival. Consequently, one would expect a preference for mates with incompatible MHC genes. Wedekind and colleagues (1995) reported just that. Individuals preferred the odors, a cue to MHC genes, of opposite sex individuals with incompatible MHC genes.

Evolutionary psychologists have proposed three separate proximate causes, WHR, FA, and chemical signaling, to account for one set of behaviors, mate selection. The question has therefore been posed, How is one mechanism to account for three distinct causes of behavior? Surely an individual who could rely on more than one piece of information would be at an advantage over one who had to rely on a sole source. Consider the cue of MHC genes in men's mate selection. The psychological mechanism may employ a decision rule such as "If odor indicates that MHC is incompatible, then consider as potential mate." Now suppose that same system also could process information about female WHR, a separate cue to mate value. The decision rule may then be "if MHC is incompatible, but WHR is too high, then discount as potential mate." Both WHR and MHC compatibility could serve as cues to mate value. Singh (1993) reported a similar phenomenon in the investigation of WHR described above in including female body mass index (BMI) as a separate indicator of female health and fertility. In Singh's data, men preferred women with low WHR, but preferred women of normal weight over underweight or overweight women, regardless of WHR. It appears that both WHR and BMI are cues to selecting

a mate, with BMI “trumping” WHR. It is not unreasonable to propose that such decision rules may affect human behavior in this manner. Consider the following analogy: If the most disconcerting thing in your present environment is the ant crawling on your knee, then attend to the ant on your knee. If, however, while attending to the ant on your knee, a tiger lunges at you from behind a boulder, then attend to the tiger.

An Example of an Evolved Psychological Mechanism Solidified during the Pleistocene Epoch

Interpreting human behavior in terms of the adaptive problems those behaviors solve can add insight into behaviors that would otherwise be difficult to interpret via proximate causes alone. For instance, recent research in the field of evolutionary psychology has focused on sperm competition in humans. Sperm competition occurs when the sperm of two or more males concurrently occupy a female’s reproductive tract. There is an extensive literature supporting sperm competition theory in non-human animals such as birds and insects. Recent research has also lent support to the theory of sperm competition in humans. Shackelford et al. (2002) provided the first empirical evidence of male psychological adaptations to sperm competition in humans. They reported that men at a greater risk of sperm competition (as measured by proportion of time spent apart from their partner since last sexual intercourse), compared to men at a lesser risk of sperm competition, display motivations that would have functioned to increase the probability of success

in sperm competition. Specifically, these men reported that they found their partners to be more attractive, they expressed greater interest in copulating with their partner, they believed that that other men found their partner more attractive, and that they believed their partner was more sexually interested in them. Shackelford, Goetz, McKibbin, and Starratt (2007) reported that men at a greater risk of sperm competition, compared to men at a lesser risk of sperm competition, display motivations that would have functioned to increase the probability of success in sperm competition. Specifically, men who spent a greater proportion of time apart from their partners (compared to men who spent less time apart from their partners) reported greater sexual interest in his partner, greater distress in response to his partner's sexual rejection, and greater sexual persistence in response to his partner's sexual rejection. The researchers suggest that this is because the men who spend a greater proportion of time apart from their partners are at an increased risk of partner infidelity and subsequent sperm competition and cuckoldry (investing unwittingly in offspring that they have not sired). Men at a greater risk for sperm competition who exhibit these behaviors (e.g., greater sexual interest in their partners) are more likely to have sex with their partners sooner, thus entering their sperm into competition with possible rival sperm. An alternative explanation would be that these men are more interested in having sex with their partners as a result of a general sexual frustration. Because both studies found these partner-directed motivations to be unrelated to the total time since the couple last had sex, however, this alternative hypothesis remains unsupported. At this point, I am unaware of any supported theory, other than sperm

competition, that can parsimoniously account for these adaptive patterned behaviors. (for a comprehensive review of human sperm competition, see Shackelford & Pound, 2006).

Another possible manifestation of anti-cuckoldry tactics in humans may be men's sexual coercion of their partners. For instance, men who perceive that they are at a greater risk of sperm competition and cuckoldry may be more likely to sexually coerce their partners. Four studies are presented here that investigate the circumstances surrounding men's partner-directed sexual coercion in the context of an intimate relationship.

CHAPTER TWO

STUDIES 1A & 1B: MEN'S PARTNER-DIRECTED INSULTS AND SEXUAL COERCION IN INTIMATE RELATIONSHIPS

Men sometimes attempt to sexually coerce their intimate partners. In the context of an intimate relationship, sexual coercion can include forcible rape but often takes the form of more subtle tactics, such as withholding financial resources if a woman does not consent to sex (Carr & VanDeusen, 2004; Johnson & Sigler, 2000; Marshall & Holtzworth-Munroe, 2002; Shackelford & Goetz, 2004). Sperm Competition Theory posits that men sexually coerce their partners as an anti-cuckoldry tactic. Research supporting this theory indicates that men's sexual coercion in the context of an intimate relationship is positively related to female infidelity (Goetz & Shackelford, 2006) and male sexual jealousy (Frieze, 1983). Here, I propose another predictor of men's partner-directed sexual coercion, men's verbal accusations of their partner's sexual infidelity. If men's partner-directed sexual coercion is an anti-cuckoldry tactic, then it may be that men's sexual coercion is specifically related to those insults indicating sexual jealousy or suspicions of infidelity.

While I propose that men's accusations of their partner's sexual infidelity will be positively related to their sexually coercive behavior, it may also be that men's

sexual coercion is related to men's general verbally abusive behavior. Previous research has documented a positive relationship between men's partner-directed insults and men's use of partner-directed non-physical coercive behavior as well as physical violence (Goetz, Shackelford, Schipper, & Stewart-Williams, 2006). Given the established link between men's partner-directed insults and their general coercive behavior in a relationship, it is reasonable to hypothesize that insults are related to specific forms of coercive behavior, in this instance sexual coercion. However, I predict that men's accusations of their partner's sexual infidelity will uniquely predict men's sexual coercion above and beyond other verbally insulting behaviors.

Study 1a: Men's Self-Reports of Partner-Directed Insults and Sexual Coercion

Methods

Participants. Two hundred forty-seven men, each of whom was in a committed, sexual relationship with a woman, participated in this study. The mean age of the participants was 25.8 years ($SD = 10.0$), the mean age of the participants' partners was 24.7 years ($SD = 8.9$), and the mean relationship duration was 43.2 months ($SD = 63.6$). All participants were drawn from universities and surrounding metropolitan communities. About half of the participants were university students approached at the beginning of several psychology, sociology, and biology class meetings. The remaining participants were community members who were known and recruited by students of the university. Unfortunately, I did not record whether a participant was a current student and so cannot include this as a variable in the analyses. No additional demographic information is available on these participants.

Materials. Participants completed a survey that included several sections. The first section solicited demographic information, including the participant's age, his partner's age, and the duration of his current relationship.

The current study investigated the content of men's insults using the Partner-Directed Insults Scale (PDIS; Goetz et al., 2006). Prior to the development of the PDIS, no measure was available to assess the *specific content* of the insults men use to derogate their partners. Previously established measures that broadly assess verbal abuse in an intimate relationship, such as the Conflict Tactics Scale (Straus, 1979), the Psychological Maltreatment of Women Inventory (Tolman, 1989), the Index of Psychological Abuse (Sullivan, Parisian, & Davidson, 1991), and the Measurement of Wife Abuse (Rodenburg & Fantuzzo, 1993), typically assess only the *frequency* with which an individual yells at or insults their partner—they do not assess the specific content of the insults directed at their partner. For example, although the Conflict Tactics Scale (Straus, 1979) includes a subscale on verbal aggression, it does not assess the content of the partner-directed insults. Some measures of psychological abuse include subscales of verbal abuse that assess the content of insults, but these assessments are typically restricted to a few items. The Psychological Maltreatment of Women Inventory (Tolman, 1989), for example, includes items such as “My partner told me my feelings were irrational or crazy” and “My partner blamed me for his problems,” but of the 50 total items, only five mention the specific content of an insult.

The PDIS evaluates both the content of the specific insults as well as the frequency with which the participant uses these insults against his partner. Each of the 47 insults is categorized into one of four components: Derogating Physical Attractiveness (e.g., “I told my partner that her breasts are ugly”), Derogating Value as a Partner/Mental Capacity (e.g., “I told my partner that she makes my life miserable”; “I called my partner an idiot”), Derogating Value as a Person (e.g., “I told my partner that nothing she does is important”), and Accusations of Sexual Infidelity (e.g., “I accused my partner of having sex with many other men”). Instructions for the PDIS are as follows: “Men sometimes try to hurt their female partner’s feelings by saying insulting things to them. The following list includes insulting things that a man might say to his partner. In the column labeled ‘How often (Use scale),’ write the number from the scale below to indicate HOW OFTEN you have said each insulting thing to your partner.”

Responses are recorded using a six-point ordered-category scale with the following values: 0 = *I have never said this insulting thing to my partner*, 1 = *I have said this insulting thing to my partner 1 time*, 2 = *I have said this insulting thing to my partner 5 times*, 3 = *I have said this insulting thing to my partner 6 to 10 times*, 4 = *I have said this insulting thing to my partner 11 to 24 times*, 5 = *I have said this insulting thing to my partner 25 or more times*. Scores for each component were calculated by summing the response values for each item in that component. Full scale scores were calculated by summing response values for each item in the entire scale. Previous research has established the reliability, validity, and utility of the

PDIS as an assessment of the content and frequency of the insults that men direct at their intimate partners (Goetz et al., 2006).

The current study investigates men's sexual coercion using the Sexual Coercion in Intimate Relationships Scale (SCIRS; Shackelford & Goetz, 2004). The SCIRS differs from other measures of sexual coercion, such as the Aggressive Sexual Behavior Inventory (Mosher & Anderson, 1986), the Sexual Situation Questionnaire (O'Sullivan & Byers, 1993), and the Coercive Sexuality Scale (Rapaport & Burkhart, 1984), in that it specifically assesses coercion in the context of an intimate relationship, rather than between casually dating partners. Assessing sexual coercion in the context of a casual dating relationship is important, but sexual coercion in a committed intimate relationship may be different from sexual coercion in a casual dating relationship. Because a couple in a committed relationship may likely be more compatible and be more considerate and caring toward one another than a couple in a casual dating relationship (see Buss, 2004), sexual coercion tactics may be more innocuous, subtle, and discrete in a committed relationship. The SCIRS is unique in that it accounts for these variations by including assessments of tactics that vary in subtlety (e.g., withholding benefits and hinting about withholding benefits). The assessment of tactics that vary in subtlety may be important because sexual coercion in intimate relationships can be both conspicuous and discreet (Shackelford & Goetz, 2004).

To assess men's sexual coercion in the current relationship, all participants completed a self-report version of the Sexual Coercion in Intimate Relationships

Scale (SCIRS; Shackelford & Goetz, 2004). The SCIRS secures information about how often the participant performed 34 sexually coercive acts. Items in the SCIRS vary in subtlety, ranging from hinting and subtle manipulations to outright physical force. These 34 items cluster into three components: Resource Manipulation/Violence (e.g., “I hinted that I would withhold benefits that my partner depends on if she did not have sex with me;” “I physically forced my partner to have sex with me”), Commitment Manipulation (e.g., “I told my partner that if she loved me she would have sex with me”), and Defection Threat (e.g. “I hinted that I would have sex with another woman if my partner did not have sex with me”). Instructions for the SCIRS are as follows: “Sexuality is an important part of romantic relationships and can sometimes be a source of conflict. Your honest responses to the following questions will contribute profoundly to what is known about sexuality in romantic relationships and may help couples improve the sexual aspects of their relationships. We appreciate that some of the questions may be uncomfortable for you to answer, but keep in mind that your responses will remain confidential. Below is a list of acts that can occur in a romantic relationship. Please use the following scale to indicate HOW OFTEN in the past ONE month these acts have occurred in your current romantic relationship. Write the number that best represents your response in the blank space to the left of each act.”

Responses were recorded using a six-point ordered-category scale with the following values: 0 = *Act did not occur in the past month*, 1 = *Act occurred 1 time in the past month*, 2 = *Act occurred 2 times in the past month*, 3 = *Act occurred 3 to 5*

times in the past month, 4 = Act occurred 6 to 10 times in the past month, and 5 = Act occurred 11 or more times in the past month. Scores for each component were calculated by summing the response values for each item in that component. Full scale scores were calculated by summing response values for each item in the entire scale. Previous research has established the reliability, validity, and utility of the SCIRS as an assessment of sexual coercion in intimate relationships (Goetz & Shackelford, 2006; Shackelford & Goetz, 2004).

Procedure. Three criteria had to be met to qualify for participation. The prospective participant had to be (1) male, (2) at least 18 years of age, and (3) currently involved in a committed, sexual relationship with a woman. If the criteria were met, the researcher handed the participant a consent form, the survey, and a security envelope. The participant was instructed to read and sign the consent form, complete the survey, place the completed survey in the envelope, and then seal the envelope. The participant was instructed not to seal the consent form inside the envelope to maintain anonymity.

Results and Discussion

The alpha reliabilities for the full-scale PDIS and four components of the PDIS (Derogating Physical Attractiveness, Derogating Value as a Partner/Mental Capacity, Derogating Value as a Person, and Accusations of Sexual Infidelity), were $\alpha = .91, .91, .83, .74,$ and $.83,$ respectively. The alpha reliabilities for the full-scale SCIRS and the three components of the SCIRS (Resource Manipulation/ Violence,

Commitment Manipulation, and Defection Threat) were $\alpha = .90, .77, .83,$ and $.87,$ respectively.

The prediction that men's use of partner-directed insults is related positively to sexual coercion in the context of an intimate relationship was supported: men's full-scale scores on the PDIS correlated positively with their full-scale scores on the SCIRS: $r = .37, p < .001.$ Men who reported greater use of insults against their partner also reported greater sexual coercion against their partner. This relationship remained positive and statistically significant even after controlling for participant age, partner age, and relationship duration: partial $r = .37, p < .001.$ A test of the difference between the zero-order and partial correlations, using Fisher's r -to- z transformation, did not reach significance ($z < 1.0, p > .05).$ For reportorial completeness, I correlated each of the four components of the PDIS with the three components of the SCIRS (see Table 1). All correlations were positive and significant except for one. I instituted a Bonferroni correction for α inflation that produced a per-prediction corrected α level of $(.05/20) = .0025$ (see Cohen & Cohen, 1983; Hays, 1988). Using this corrected $\alpha,$ only two of the 19 originally significant correlations became non-significant (see Table 1). These relationships remained positive and statistically significant after controlling statistically for participant age, partner age, and relationship duration. In addition, none of the tests of the differences between zero-order and partial correlations reached significance (all z s $< 1.0,$ all p s $> .05;$ analyses available on request).

Unique Predictive Utility of the Insult Components. To identify whether any of the PDIS components uniquely predicted men's sexual coercion against their partners, I conducted a multiple regression using scores on the four PDIS components to predict full-scale SCIRS scores. The overall model was significant ($F = 12.58$, $R^2 = .17$, $p < .001$). Investigation of the individual standardized regression coefficients indicated that three of the four PDIS components uniquely predicted men's total SCIRS scores: Derogating Value as a Partner/Mental Competency, Derogating Value as a Person, and Accusations of Sexual Infidelity (see Table 2). These results did not change after controlling for participant age, partner age, and relationship duration (analyses available on request).

For reportorial completeness, I conducted three additional multiple regressions, using all four of the PDIS components to predict each of the three SCIRS components. The results are displayed in Table 2 and indicate that Resource Manipulation was significantly and uniquely predicted by Derogating Value as a Person and Accusations of Sexual Infidelity and that Commitment Manipulation was significantly and uniquely predicted by Derogating Value as a Partner/Mental Competency. Defection Threat was not significantly predicted by any of the PDIS components. This pattern of results persisted after controlling statistically for participant age, partner age, and relationship duration (analyses available on request).

Study 1b: Women's Reports of Men's Partner-Directed Insults and Sexual Coercion

Men's self-reports of their partner-directed insults and sexual coercion may not provide accurate assessments of these behaviors (e.g., Dobash, Dobash, Cavanagh, & Lewis, 1998; Magdol et al., 1997). Men may be reluctant to report their partner-directed insults and sexual coercion or, if they do, they may underreport the most egregious insults or the most severe forms of sexual coercion (e.g., Dobash et al., 1998). Women's reports of their partner's sexual coercion and partner-directed insults may reflect more accurately the incidence of such behaviors. Using an independent sample of women in committed, sexual relationships, Study 1b secured women's reports of their partner's sexual coercion and insults. These independent reports offered an additional test of the predictions tested in Study 1a.

Methods

Participants. Three hundred seventy-eight women, each of whom was in a committed, sexual relationship with a man, participated in this study. The mean age of the participants was 25.5 years ($SD = 7.9$), the mean age of the participants' partners was 28.4 years ($SD = 9.3$), and the mean relationship duration was 51.4 months ($SD = 62.8$). Participants were obtained in the same manner as in Study 1a. No additional demographic information is available on these participants. None of the women in Study 1b were partners of the men in Study 1a.

Materials. The survey for Study 1b paralleled the survey used in Study 1a. Participants in Study 1b reported their partner's use of insults and sexual coercion in

the current relationship using versions of the SCIRS and PDIS in which the wording was changed to accommodate reporting of a partner's behavior.

Procedures. As in Study 1a, three criteria must have been met to qualify for participation. The prospective participant had to be (1) female, (2) at least 18 years of age, and (3) currently involved in a committed, sexual relationship with a man. The same procedure was followed as in Study 1a.

Results and Discussion

The alpha reliabilities for the full-scale PDIS and four components of the PDIS (Derogating Physical Attractiveness, Derogating Value as a Partner/Mental Capacity, Derogating Value as a Person, and Accusations of Sexual Infidelity), were $\alpha = .92, .85, .87, .82,$ and $.87,$ respectively. The alpha reliabilities for the full-scale SCIRS and the three components of the SCIRS (Resource Manipulation/ Violence, Commitment Manipulation, and Defection Threat) were $\alpha = .90, .85, .86,$ and $.90,$ respectively.

The hypothesis tested in Study 1b paralleled the hypothesis tested in Study 1a: Men's use of partner-directed insults is related positively to their sexual coercion in the context of an intimate relationship. Consistent with this hypothesis, and with the results reported in Study 1a, women's reports of men's use of partner-directed insults correlated positively with their sexual coercion: $r = .64, p < .001.$ According to women's partner-reports, men who more frequently directed insults at their partners also were more sexually coercive against their partner. As in Study 1a, this correlation remained positive and statistically significant even after controlling for

participant age, partner's age, and relationship duration: partial $r = .63$, $p < .001$. A test of the difference between the zero-order and partial correlations, using Fisher's r -to- z transformation, did not reach significance ($z < 1.0$, $p > .05$). As in Study 1a, I correlated each of the four components of the PDIS with the three components of the SCIRS. All correlations were positive and significant (see Table 3). Again, I instituted a Bonferroni correction for α inflation that produced a per-prediction corrected α level of $(.05/20) = .0025$ (see Cohen & Cohen, 1983; Hays, 1988). All of the correlations remained significant using the corrected α . These relationships remained positive and statistically significant after controlling statistically for participant age, partner age, and relationship duration (analyses available on request). In addition, none of the tests of the differences between zero-order and partial correlations reached significance (all z s < 1.0 , all p s $> .05$; analyses available on request).

Unique Predictive Utility of the Insult Components. Paralleling Study 1a, I conducted a multiple regression using scores on the four PDIS components to predict SCIRS scores to identify whether any of the PDIS components uniquely predicted men's use of sexual coercion against their partners. Again, the overall model was significant ($F = 84.35$, $R^2 = .48$, $p < .001$). Investigation of the individual standardized regression coefficients indicated that three of the four PDIS components uniquely predicted men's total SCIRS scores: Derogating Physical Attractiveness, Derogating Value as a Person, and Accusations of Sexual Infidelity (see Table 4). These results did not

change after controlling for participant age, partner age, and relationship duration (analyses available on request).

For reportorial completeness, I conducted three additional multiple regressions, using all four of the PDIS components to predict each of the three individual SCIRS components. The results are displayed in Table 4 and indicate that Resource Manipulation was significantly and uniquely predicted by all four of the PDIS components and that Commitment Manipulation was significantly and uniquely predicted by each of the PDIS components except Derogating Value as a Person. Defection Threat was significantly and uniquely predicted by each of the PDIS components except Derogating Value as a Partner/Mental Competency. This pattern of results persisted after controlling statistically for participant age, partner age, and relationship duration (analyses available on request).

Comparison of Men's Self-Reports (Study 1a) and Women's Partner-Reports (Study 1b). I performed Fisher's r -to- z transformations to compare the magnitudes of the parallel correlations generated by men's self-reports and women's partner-reports. Eleven of the 20 correlations obtained from men's self-reports were significantly smaller than the parallel correlations obtained from women's partner-reports, and none were significantly larger (analyses available on request). Thus, the magnitudes of these relationships between men's use of partner-directed insults and their use of sexual coercion against their partner were significantly greater for women's partner-reports than for men's self-reports. In addition, all four of the multiple regression

models produced from women's partner-reports accounted for greater variance than did the parallel models produced from men's self-reports.

For reportorial completeness, I performed tests of the difference between performance frequencies reported by men and women (see Table 5). The results indicated just two sex differences. Women reported a significantly higher performance frequency on one of the SCIRS components, Commitment Manipulation. Men reported significantly higher performance frequency on one of the PDIS components, Derogating Physical Attractiveness.

General Discussion

I hypothesized that men's sexually coercive behaviors would be related positively to their use of partner-directed insults in the context of an intimate relationship. The results from men's self-reports (Study 1a) and from women's partner-reports (Study 1b) provided two independent lines of support for this hypothesis. Men's use of sexually coercive behaviors can be statistically predicted from the frequency and content of the insults that they direct at their intimate partners.

A comparison of the results of Studies 1a and 1b indicates that the relationships between men's use of partner-directed insults and sexual coercion are stronger for women's partner-reports than for men's self-reports. These sex-differentiated relationships do not appear to be attributable to sex differences in reported performance frequencies of men's partner-directed insults and sexual coercion. Future research might investigate the possibility that, relative to men,

women may be more attuned to the relationship between men's use of partner-directed insults and sexual coercion. I speculate that women may be more attuned to the relationship between men's use of insults and sexual coercion because of the potentially dangerous consequences of being a victim of these behaviors and that this relationship may be less salient for men because men do not have as much to lose from engaging in these behaviors as women have from being victims of these behaviors. However, because the men in Study 1a were not partnered to the women in Study 1b, I cannot assess the possibility, for example, that these sex-differentiated relationships might be attributable to differences in the veridicality of men's reports and women's reports (see Dobash et al., 1998; Magdol et al., 1997).

The overall pattern of positive links between partner-directed insults and sexually coercive behavior was replicated across both studies. In addition, two of the PDIS components, Derogating Value as a Person and Accusations of Sexual Infidelity, uniquely predicted men's overall sexual coercion across both studies. Derogating Value as a Person includes insults such as "I called my partner a nobody" and "I told my partner that she is worthless." Relative to items in the other components, the items in this component appear to be the most broad (i.e., not insulting a specific feature or attribute of the partner, but instead derogating the value of the person as a whole). It is possible that the insults are used in a hierarchical fashion, such that the most specific insults are used first and most often, with the most broad and general insults—such as those included in the component Derogating Value as a Person—used as a last effort in a poor relationship nearing termination, a

situation which also may foster sexual coercion (e.g., Goetz & Shackelford, 2006; Shackelford & Goetz, 2004).

The component Accusations of Sexual Infidelity includes insults such as “I accused my partner of having sex with many other men,” and “I called my partner a ‘whore’ or a ‘slut’.” Thus, men who accuse their partners of being sexually unfaithful also are more likely to sexually coerce them. This finding provides additional support for the theory of sexual coercion as an anti-cuckoldry tactic. Sexually coercive behaviors increase with the perceived risk of cuckoldry as assessed by men’s accusations of their partners’ sexual infidelity.

One limitation of the current research is the lack of paired partner reports. Because the men and women surveyed were not paired, I cannot assess the possibility that apparent sex differences in the strength of these associations are attributable to differences in the veracity of men’s self-reports and women’s partner-reports. Future research would benefit from obtaining cross-spouse reports to address such concerns. A second limitation is that the data presented here reflects a single assessment. Further research using a methodology that includes repeated assessments over time may provide greater insight into the nature of the links between insults and sexual coercion as well as how these links may change over time. Although I have used insults to predict statistically men’s sexual coercion, it is possible that the actual causal direction is reversed, and that men’s sexual coercion leads to their use of partner-directed insults. Regardless of the causal direction, it may be more practical to use verbal insults, an overt class of behaviors, to predict sexual coercion, behaviors

that are less generally apparent and often rather subtle and covert (with the exception of direct physical force; see, for review, Goetz et al., 2006). Another potential limitation is that social desirability concerns by men and by women might have affected the results. Inclusion of a measure of social desirability in future research in this area will help to address and clarify whether and to what extent social desirability concerns might have affected the current results.

CHAPTER THREE

STUDY 2: MEN'S SEXUAL COERCION VARIES WITH RISK OF PARTNER'S SEXUAL INFIDELITY

In studies 1a and 1b, I reported that men's sexual coercion is positively related to men's partner-directed verbal insults. Notably, men who accuse their partners of sexual infidelity are more likely to engage in sexually coercive behaviors. This finding is consistent with the theory of men's sexual coercion as an anti-cuckoldry tactic. However, because men are not usually privy to their partner's extra-pair copulatory behavior, they must rely on available information—cues to the risk of female infidelity. In the current study, the proportion of time spent apart since the couple's last copulation provides an assay of the risk of female sexual infidelity.

Following previous research (e.g., Shackelford et al., 2002, 2007; Starratt et al., 2007), I operationalized the risk of female sexual infidelity as the proportion of time a couple has spent apart since their last in-pair copulation. As this proportion increases, the risk that an extra-pair male has inseminated a woman increases (Baker & Bellis, 1995). Consequently, I hypothesize positive relationships between men's partner-directed sexually coercive behaviors and the proportion of time a couple has spent apart since their last in-pair copulation. An alternative hypothesis is that men's partner-directed sexual coercion is related to the *total time* since last in-pair

copulation, such that sexual coercion increases with time since last copulation, perhaps as a result of increasing “sexual frustration” (see, e.g., Shackelford et al., 2002). If men’s partner-directed sexual coercion is related to the total time since last in-pair copulation (regardless of whether the couple spent this time together or apart), then the hypothesized relationship might be explained by “sexual frustration,” without reference to sperm competition theory. If, however, men’s sexual coercion is related to the proportion of time a couple has spent apart since their last in-pair copulation, independent of the total time since last in-pair copulation, this would support the hypothesis that men’s partner-directed sexual coercion functions as an anti-cuckoldry tactic.

Methods

Participants. Two hundred twenty-three men, each in a committed, heterosexual, sexual relationship of at least one year, and who had copulated with their partner at least once in the previous week, participated in this study. The mean age of participants was 25.6 years ($SD = 8.1$). The mean age of the participants’ partners was 24.4 years ($SD = 7.6$). The mean relationship length was 50.2 months ($SD = 60.9$).

Materials. Participants first completed a demographic questionnaire that secured information including the last time the participant had copulated with his partner and the amount of time since last copulation (including sleeping time) the participant spent with his partner, following Shackelford et al. (2002; 2007). To assess men’s sexual coercion in the current relationship, participants completed the

Sexual Coercion in Intimate Relationships Scale (SCIRS; Shackelford & Goetz, 2004). SCIRS items vary in subtlety, ranging from hinting and subtle manipulations to outright physical force. The items cluster into three components: Resource Manipulation/Violence (e.g., “I hinted that I would withhold benefits that my partner depends on if she did not have sex with me;” “I physically forced my partner to have sex with me”), Commitment Manipulation (e.g., “I told my partner that if she loved me she would have sex with me”), and Defection Threat (e.g., “I hinted that I would have sex with another woman if my partner did not have sex with me”). Instructions for the SCIRS are as follows: “Sexuality is an important part of romantic relationships and can sometimes be a source of conflict...Below is a list of acts that can occur in a romantic relationship. Please use the following scale to indicate HOW OFTEN in the past ONE month these acts have occurred in your current romantic relationship.” Responses are recorded using a six-point ordered-category scale anchored by 0 = *Act did not occur in the past month*, and 5 = *Act occurred 11 or more times in the past month*. Scores for each component are calculated by summing the response values for each item in that component. Full scale scores are calculated by summing response values for each item in the entire scale. Previous research has established the reliability, validity, and utility of the SCIRS as an assessment of sexual coercion in intimate relationships (Shackelford & Goetz, 2004).

Procedure. Four criteria must have been met to qualify for participation: the prospective participant must be (1) male, (2) at least 18 years of age, (3) currently in a committed, heterosexual relationship, and (4) must have copulated with his current

partner at least once in the previous week. Upon the prospective participant's arrival at the scheduled time and location, the researcher confirmed that the prospective participant met these criteria. If the criteria were met, the researcher provided the participant with a consent form, the survey, and a security envelope. The participant was instructed to read and sign the consent form, complete the survey, place the completed survey in the envelope, and then seal the envelope.

Results

The proportion of time a couple had spent apart since their last in-pair copulation was calculated by subtracting the number of hours the couple had spent together since their last copulation from the total number of hours since the couple's last copulation and dividing this difference by the total number of hours since the couple's last copulation (following Shackelford et al., 2002; 2007). I then computed correlations to identify relationships between men's partner-directed sexual coercion and the risk of female sexual infidelity as measured by the proportion of time the couple spent apart since their last in-pair copulation.

Men's overall partner-directed sexual coercion (sum of 34 items; $\alpha = .95$) was positively and significantly correlated with the proportion of time spent apart since the couple's last in-pair copulation ($r = .18, p < .05$). I also correlated scores on each of the three sexual coercion components with the proportion of time spent apart since last in-pair copulation. All three correlations were positive and statistically significant at $p < .05$ ($r = .17$ for Resource Manipulation/Violence, $.16$ for Commitment Manipulation, and $.14$ for Defection Threat; all component α s $> .88$).

Men's partner-directed sexually coercive behaviors were not related to the *total time* since last in-pair copulation. The correlation between men's overall sexual coercion and total time since last in-pair copulation was not significant, $r = .07$ ($p > .05$). I also correlated scores on each of the three sexual coercion factors with total time since last in-pair copulation. None of these correlations was significant ($r = .06$ for Resource Manipulation/Violence, $.07$ for Commitment Manipulation, and $.04$ for Defection Threat; all $ps > .05$).

The results of a multivariate regression analysis in which the proportion of time spent apart since last in-pair copulation predicted scores on the three SCIRS components indicated that the proportion of time spent apart since last in-pair copulation significantly predicted scores on each component ($\beta = .17$ for Resource Manipulation/Violence, $.16$ for Commitment Manipulation, and $.14$ for Defection Threat; all $ps < .05$). These results remained significant even after including total time since last in-pair copulation as a second predictor in a subsequent regression analysis. Total time since last in-pair copulation, in contrast, did not significantly predict any of the SCIRS components.

Discussion

Men's overall partner-directed sexual coercion was positively and significantly correlated with the proportion of time spent apart since the couple's last in-pair copulation, and thus with the risk of female sexual infidelity. Scores on all three sexual coercion factors (Resource Manipulation/Violence, Commitment

Manipulation, and Defection Threat) also were positively and significantly correlated with the risk of female sexual infidelity.

Total time since last in-pair copulation was not correlated with the performance of partner-directed sexually coercive behaviors. These results indicate that it is not the total time since last in-pair copulation that predicts men's sexually coercive behaviors, but instead it is the proportion of time spent *apart* since the couple's last in-pair copulation that is important. In other words, men are not sexually coercing their partners as a result of general "sexual frustration," but instead in response to the increased risk of female sexual infidelity.

I hypothesized that men's partner-directed sexually coercive behaviors are a response to an increased risk of female sexual infidelity and subsequent cuckoldry, as assessed by the proportion of time spent apart since the couple's last copulation. Although the results are consistent with this hypothesis, I cannot eliminate the possibility that men's sexual coercion *causes* women to spend less time together with their partners since the couple's last copulation. A methodology that includes repeated assessments of the key variables over time would allow for the identification of causal relationships. Our interpretation of the results nevertheless parallels the interpretations of researchers studying sexual coercion in nonhuman mateships. In many avian species, for example, males sexually coerce their partners immediately after her EPC, territorial intrusions by rival males, and female absence, and this sexual coercion is interpreted as an anti-cuckoldry tactic (Barash, 1977; Cheng et al, 1983; McKinney & Stolen, 1982).

The current research includes a one-time assessment of current risk of sexual infidelity which I treat as a proxy for recent risk of female sexual infidelity. It is reasonable to assume that the one-time assessment of proportion of time spent apart since last in-pair copulation accurately reflects typical recent proportions of time spent apart since last in-pair copulation. Analyses of data from an independent study corroborate this assumption: Shackelford (2006) secured daily assessments of proportion of time spent apart from partner since the last in-pair copulation from 45 married men over a one-month period. Correlations between adjacent days for this variable are uniformly positive and significant (all $ps < .05$), with an average cross-day correlation of $r = 0.61$.

In summary, this research tested the hypothesis that men's partner-directed sexually coercive behavior is related positively to the risk of female EPC as assessed by the proportion of time spent apart since the couple's last in-pair copulation. The results supported the hypothesis: Men who spend a greater proportion of time apart from their partner since the couple's last in-pair copulation report more frequent performance of sexually coercive behaviors than do men who spend a greater proportion of time together with their partner since the couple's last in-pair copulation. The current research adds to a developing literature indicating that human males, like males of other socially monogamous species, behave in ways to address the adaptive problems of cuckoldry.

CHAPTER FOUR

STUDY 3: AN INVESTIGATION OF THE MODERATING EFFECT OF MATE DESIRABILITY ON THE RELATIONSHIP BETWEEN FEMALE INFIDELITY AND MALE SEXUAL COERCION

Studies 1a, 1b, and 2 supported the hypothesis that men's sexually coercive behavior may be an anti-cuckoldry tactic. Men who accuse their partners of sexual infidelity are more likely to sexually coerce their partners, as are men who spend a greater portion of time apart from their partners since the last in pair copulation. These results are consistent with Goetz and Shackelford (2006), who reported that men's perceptions of their partner's infidelity (i.e., ratings of the likelihood that their partners had sex with another man over the duration of the current relationship) are related positively to men's sexual coercion of their partner. Goetz and Shackelford argue that, in addition to forcible rape of their partners, men may engage in relatively discrete forms of sexual coercion, such as withholding monetary benefits his partner depends on if she does not consent to sex, in an attempt to lessen the likelihood of his partner's defection from the relationship. This argument implies that there are costs to men of using sexual coercion (e.g., mate defection) in addition to the proposed benefits (e.g., mate retention, future infidelity deterrence).

Partner infidelity can be so costly to men that even the perceived likelihood of partner infidelity is sufficient to trigger the use of sexually coercive behaviors (Goetz & Shackelford, 2006). Not all men who perceive their partners to be unfaithful engage in sexual coercion, however. Under what circumstances might the benefits of sexual coercion no longer outweigh the costs for some men? The current study investigates one such possible moderator, mate desirability – an evaluation of the characteristics one possesses compared to the characteristics desired by potential mates (Buss & Barnes, 1986). A man’s assessment of his own desirability as a long-term mate relative to his partner’s desirability as a long-term mate may moderate the relationship between perceived female infidelity and male sexual coercion. For example, a man who perceives himself to be less desirable as a mate compared to his partner may not risk sexually coercing his partner, because he is unlikely to secure another partner of such high desirability should his partner defect from the relationship as a result of his coercion. Instead, he may engage in less “risky” coercive or mate guarding behaviors, such as bringing his partner flowers or buying her gifts.

Methods

Participants. Two hundred eighty men, each of whom was in a committed, sexual relationship with a woman, participated in this study. The mean age of the participants was 25.2 years ($SD = 7.5$), the mean age of the participants’ partners was 23.9 years ($SD = 6.8$), and the mean relationship length was 46.2 months ($SD = 53.1$). Participants were drawn from universities and surrounding metropolitan

communities. Due to the sensitive nature of the topic and to assure anonymity, no further demographic information was collected.

Materials. Participants completed a demographic questionnaire that solicited information on the participant's age, his partner's age, and the duration of his current relationship. This questionnaire also collected information on the participant's perceptions of his own desirability as a mate compared to his partner's desirability as a mate and his perception of his partner's previous infidelity. Mate desirability is a measure of desirability as a mate compared to that of his partner (see Buss, 2003, for review). Men were asked, "Who is more desirable as a long term partner?," and then responded on a 10-point ordered category scale anchored by *0 = I am much more desirable as a long term partner* and *9 = My partner is much more desirable as a long term partner*. Based on their responses to this question, men were placed into one of three categories. Men who responded with scores of 0 – 3 were categorized as perceiving themselves to be more desirable than their current partner. Men who responded with scores of 4 – 5 were categorized as perceiving that he and his partner are equally desirable as mates. Men who responded with scores of 6 – 9 were categorized as perceiving themselves to be less desirable than their current partner. Female infidelity was a measure of a man's perception of his partner's past infidelity. Men were asked, "As far as you know, has your current partner had sexual intercourse with someone other than you since you have been involved in a relationship together?" Men then respond on a 10-point ordered category scale anchored by *0 = Definitely No* and *9 = Definitely Yes*. There is not yet an empirical

literature on the accuracy of men's perceptions of their partner's infidelity. However, I expect that men's behaviors will vary with their perceptions of partner infidelity and not necessarily with actual partner infidelity. I do not expect men to alter their behavior if their partner had been unfaithful but they were not aware of the infidelity. In the same manner, I expect men to alter their behavior if they perceived that their partner had been unfaithful, even if these perceptions were not accurate.

Upon completion of the demographic questionnaire, participants completed the SCIRS (Shackelford & Goetz, 2004). The SCIRS secures information about how often the participant performed 34 sexually coercive acts in the past month. Items in the SCIRS vary in subtlety, ranging from hinting and subtle manipulations to outright physical force. These 34 items cluster into three components: Resource Manipulation/Violence (e.g., "I hinted that I would withhold benefits that my partner depends on if she did not have sex with me", "I physically forced my partner to have sex with me"), Commitment Manipulation (e.g., "I told my partner that if she loved me she would have sex with me"), and Defection Threat (e.g., "I hinted that I would have sex with another woman if my partner did not have sex with me"). Previous research has established the reliability, validity, and utility of the SCIRS as an assessment of sexual coercion in intimate relationships (Goetz & Shackelford, 2006; Shackelford & Goetz, 2004).

Procedure. Three criteria had to be met to qualify for participation. The prospective participant had to be (1) male, (2) at least 18 years of age, and (3) currently involved in a committed, sexual relationship with a woman. If the criteria

were met, the researcher handed the participant a consent form, the survey, and a security envelope. The participant was instructed to read and sign the consent form, complete the survey, place the completed survey in the envelope, and then seal the envelope. The participant was instructed not to seal the consent form inside the envelope to maintain anonymity.

Results

Total SCIRS scores were calculated by summing responses across all 34 items. Scores for each component of the SCIRS were calculated by summing the responses of each item within that category. Alpha reliabilities for the full-scale SCIRS and the three components of the SCIRS (Resource Manipulation/ Violence, Commitment Manipulation, and Defection Threat) were $\alpha = .95, .88, .91,$ and $.95,$ respectively.

Of the 280 men, 50 were classified as perceiving themselves to be more desirable as a mate than their partners, 124 perceived that they and their partners were equally desirable, and 101 perceived themselves to be less desirable than their partners. Five participants did not provide a response to the question of mate desirability and were excluded from further analyses. These results are consistent with literature indicating that couples tend to consist of individuals of similar mate desirability (for review, see Buss, 2003).

Preliminary analyses of the relationship between men's perceptions of their partners' infidelity and men's sexual coercion were consistent with those reported by Shackelford and Goetz (2006). Men's total SCIRS score was positively predicted by

perceptions of female infidelity, $\beta = .14, p < .05$. The results also indicated that perceptions of female infidelity positively predicted two of the three SCIRS categories, Commitment Manipulation ($\beta = .13, p < .05$) and Defection Threat ($\beta = .13, p < .05$). Resource Manipulation/Violence was not predicted by perceptions of female infidelity ($\beta = .11, p > .05$).

Additional analyses supported the hypothesis that the relationship between female infidelity and men's sexually coercive behavior is moderated by relative mate desirability. For participants in the "I am a more desirable mate than my partner" category, perceptions of female infidelity did not predict total SCIRS scores ($\beta = .20, p = .20$) and only predicted scores for one of the three SCIRS categories, Commitment Manipulation ($\beta = .37, p < .05$). For participants in the "My partner and I are equally desirable as mates" category, perceptions of female infidelity predicted total SCIRS scores ($\beta = .22, p < .05$), and scores on two of the three SCIRS categories, Resource Manipulation/Violence ($\beta = .22, p < .05$) and Defection Threat ($\beta = .32, p < .01$). Commitment Manipulation was not predicted in this group ($\beta = .09, p = .32$). Perceptions of female infidelity did not predict total SCIRS scores or scores on any of the three SCIRS categories for participants who perceived themselves to be less desirable than their partners (all β s $< .09, p$ s $> .41$).

Discussion

The current results support the hypothesis that the relationship between perceptions of female infidelity and male sexual coercion is moderated by relative mate desirability. Specifically, men's perceptions of their partner's infidelity predict

the use of Commitment Manipulation as a sexual coercion tactic by men who perceive that they are more desirable than their partners. Perceptions of female infidelity predict the use of Resource Manipulation/Violence and Defection Threat as sexual coercive tactics by men who perceive that they and their partners are equally valuable. Perceptions of female infidelity are unrelated to men's sexual coercion among men who perceive that they are less desirable than their partners.

The current argument is that relative mate desirability moderates the ratio of costs to benefits of men's use of sexual coercion in an intimate relationship. Sexual coercion has costs; a man who sexually coerces his partner may risk her defection from the relationship, for example (see Goetz & Shackelford, 2006). In the event of a mate's defection, a man loses not only the time and resources he has invested in his mate, but also the opportunity for future offspring that she may have provided. Conversely, men may have evolved psychological mechanisms that promote sexual coercion as an anti-cuckoldry tactic (Goetz & Shackelford, 2006). Because cuckoldry (unwitting investment in genetically unrelated offspring) is reproductively costly, the benefits of sexual coercion preventing cuckoldry may outweigh the risks of sexual coercion causing a partner's defection from the relationship. However, not all men who are at risk for cuckoldry sexually coerce their partners. The results of the current study, for instance, indicate that perceived female infidelity does not predict sexual coercion for men who perceive that their partners are more valuable mates than themselves. This may be because men who are less desirable than their partners believe that, should their partners leave them, they are not likely to attract another

partner who is as desirable. Consequently, for these men the risk of losing their partner due to sexual coercion may be higher than the cost of potential cuckoldry. In contrast, men who perceive that they are as desirable as their partners may not have the same concern about the potential loss of their mate. Men in this group may risk sexual coercion because, should this result in mate defection, they may perceive that they are in a position to attract another mate who is at least as desirable as the one they lost.

One might argue that sexual coercion in response to perceived female infidelity increases with men's perceived relative mate desirability. However, this does not appear to be the case. Men who perceive that they are more desirable than their mates are less likely to coerce their partners, compared to men who perceive that they are equally as desirable as their partners, but still more likely than men who perceive that they are less desirable than their partners to engage in sexual coercion in response to female infidelity. This may be because the cost-to-benefit ratio for men who perceive that they are more desirable than their partners is between this ratio for men who perceive that they are less desirable than their partners and men who perceive that they are as desirable as their partners. For instance, men who perceive themselves to be as desirable as their partners may have partners who are desirable enough to not want to risk losing, but not so desirable as to be unlikely to attract a partner of similar desirability should their current partner defect from the relationship as a result of being sexually coerced.

A limitation of this study is the assessment of relative mate desirability and female infidelity using single-item scales of unknown reliability. Future research would benefit from using multi-item assessments of relative mate desirability and female infidelity that will allow for estimates of reliability. Also, it may be that men's mate value relative to his partner serves as a proxy for his ability to attract another mate who is more desirable than his current partner. Because men with higher self-perceived mate desirability tend to be choosier when selecting a long-term partner (Buston & Emlen, 2003), a man who perceives that he is more desirable than his current partner may believe that he can attract a partner who is also more desirable than his current partner. A next step in this research might be to incorporate a measure of perceived ability to secure another partner, such as the Trait-Specific Dependence Inventory (Ellis, Simpson, & Campbell, 2002), a multi-scale inventory that assesses comparisons between current and alternative partners on several dimensions of mate desirability.

In conclusion, the current research provides evidence that the predictive utility of men's perceptions of their partner's infidelity on men's sexual coercion of their partner is moderated by men's perceptions of relative mate desirability. Men for whom the risk of cuckoldry outweighs the risk of mate defection, according to the current argument, are more likely to sexual coerce their partners. However, when the risk of mate defection outweighs the risk of cuckoldry, men are less likely to engage in sexual coercion.

CHAPTER FIVE

FINAL COMMENTS AND FUTURE DIRECTIONS

Female infidelity has been a recurrent adaptive problem for men throughout human evolutionary history. Female infidelity is the factor most directly associated with risk of cuckoldry – or the unwitting investment in genetically unrelated offspring. If a man's partner has had sex with another man, he cannot be sure that any children she has are genetically his. As this can be so reproductively costly for men (e.g. investing time and material resources into raising a rival male's offspring), it has been suggested that men may have evolved psychologies that motivate anti-cuckoldry behaviors. The research presented in this dissertation indicates that female sexual infidelity is positively related to male sexual coercion in the context of an intimate relationship, supporting the hypothesis that partner-directed sexual coercion may function as an anti-cuckoldry tactic.

Chapter 2 discussed two independent studies investigating the relationship between men's sexual coercion and their partner-directed verbally insulting behavior. Results indicated that men's sexual coercion is positively related to men's use of partner-directed insults. Specifically, the category of insults that was most consistently related to men's sexually coercive behavior was Accusations of Sexual Infidelity. According to both men's self-reports (Study 1a) and women's partner-

reports (Study 1b), men who accuse their partners of being sexually unfaithful are more likely sexually coerce their partners.

Men who accuse their partners of being sexually unfaithful also are more likely to sexually coerce their partners. However, men often are not directly aware of their partner's adulterous behavior. Men must be relying on cues to their partner's infidelity. Chapter 3 proposed one such cue – proportion of time spent apart from one's partner since last sexual intercourse. The more time a woman spends apart from her partner, the greater the risk that she has had sex with another man. Results of Study 2 indicate that men who spend a greater proportion of time apart from their partners are more likely to be sexually coercive. This provides further support for the theory of sexual coercion as an anti-cuckoldry tactic.

Although Studies 1a, 1b, and 2 provide evidence that sexual coercion may function as an anti-cuckoldry tactic, not all men sexually coerce their partners. It has been previously suggested that sexually coercing a partner may carry inherent costs as well as the benefits of preventing cuckoldry, and that men appear to weigh the costs and benefits of sexually coercing an intimate partner. Chapter 4 investigated one factor that may influence the cost to benefit ratio of sexual coercion, relative mate desirability. Results of Study 3 indicated that the relationship between female sexual infidelity and male sexual coercion is moderated by relative mate desirability. Specifically, perceptions of their partner's infidelity predict sexual coercion only in relationships in which the man perceives that he and his partner are of relatively equal mate value or in which the man believes that he is more valuable than his partner.

Perceptions of female infidelity are unrelated to men's sexual coercion among men who perceive that they are less desirable than their partners.

Future research in the area of female infidelity and male sexual coercion would benefit from the inclusion of cross couple reports. The studies presented here rely on men's perceptions of their partner's sexual infidelity. It may be that men's perceptions of their partner's infidelity are related to men's behavior differently than women's reports of their own actual infidelity. For instance, men who perceive that their partners have been sexually unfaithful may behave differently than men who do not have such perceptions, regardless of the accuracy of those beliefs. On the other hand, it is possible that men's response to subconscious cues to sexual infidelity may drive behavior more strongly than explicit accusations of women's sexual behavior. While men may not consciously believe that their partners have been sexually unfaithful, they may be subconsciously acting on the basis of cues to infidelity, such as proportion of time spent apart.

Another limitation to the current research is that all studies presented here rely on single time assessments of behavior. Studies utilizing longitudinal research designs may provide a more detailed picture of the relationship between female infidelity and male sexual coercion. I present the argument that men sexually coerce their partners after he may be at risk for cuckoldry. However, the actual relationship may be reversed. Consider the results of Study 2 presented above. I argue that men who spend a greater proportion of time apart from their partners are at a greater risk of cuckoldry, and so men consequently sexually coerce their partners as an anti-

cuckoldry tactic. It is possible, though, that women who are partnered to sexually coercive men subsequently choose to spend a greater proportion of time apart from their partners. Similarly, it is possible that men who sexually coerce their partners subsequently are verbally abusive, rather than the argument I present in chapter 2 proposing that men who accuse their partners of sexual infidelity subsequently sexually coerce their partners as an anti-cuckoldry tactic. A research design that includes longitudinal, multi-time assessments may provide a greater understanding of the cause and effect relationship between female infidelity and male sexual coercion.

Conclusion

Evolutionary psychologists attempt to define human behavior by identifying how humans lived during ancestral times and the adaptive problems they were likely to face. One adaptive problem that has received recent research attention is that of cuckoldry. Men who unwittingly invested time and resources into offspring to which they were not genetically related would have been at an evolutionary disadvantage compared to men who only invested in their own genetic children. Consequently, it has been hypothesized that men may have evolved psychologies that motivate anti-cuckoldry behaviors. Here, I presented four studies that provided independent support for the hypothesis of partner-directed sexual coercion as an anti-cuckoldry tactic.

According to both men's self-reports and women's partner-reports, men who accuse their partners of having sex with other men are also more likely to sexually coerce their partners. Men who spend a greater proportion of time apart from their partners are also more likely than men who spend less time apart from their partners

to be sexually coercive. In both instances, men's sexual coercion is positively related to the risk of cuckoldry, supporting the theory of sexual coercion as an anti-cuckoldry tactic.

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Table 1.

Study 1a: Correlations between the PDIS (Total and Four Components) and the SCIRS (Total and Three Components) According to Men's Self-Reports

<u>PDIS</u>	SCIRS			
	Total	Resource Manip.	Commitment Manip.	Defection Threat
Total	.37**	.37**	.32**	.23**
Derogating Physical Attractiveness	.24**	.28**	.17** ^a	.19** ^a
Derogating Value as a Partner/ Mental Competency	.28**	.23**	.31**	.12
Derogating Value as a Person	.35**	.41**	.26**	.23**
Accusations of Sexual Infidelity	.31**	.34**	.25**	.20**

* $p < .05$, ** $p < .01$, *** $p < .001$

^a Correlation is non-significant using the Bonferroni corrected $\alpha = .0025$

Note. PDIS = Partner-Directed Insults Scale, SCIRS = Sexual Coercion in Intimate Relationships Scale.

Table 2.

Study 1a: Multiple Regression Analyses (Reported in Standardized Beta Weights), Using Men's Self-Reports

<u>PDIS</u>	SCIRS				
	Total	Resource Manip.	Commitment Manip.	Defection Threat	
Derogating Physical Attractiveness	.01	.03	-.06	.09	
Derogating Value as a Partner/ Mental Competency	.16*	.08	.25***	.02	
Derogating Value as a Person	.27*	.28**	.17**	.10	
Accusations of Sexual Infidelity	.16*	.17*	.11	.13	
Full Model	<i>F</i>	12.58***	14.80***	9.49***	4.42**
	<i>R</i> ²	.17	.20	.14	.07

p* < .05, *p* < .01, ****p* < .001

Note. PDIS = Partner-Directed Insults Scale, SCIRS = Sexual Coercion in Intimate Relationships Scale.

Table 3.

Study 1b: Correlations between the PDIS (Total and Four Components) and the SCIRS (Total and Three Components) According to Women's Partner-Reports

<u>PDIS</u>	SCIRS			
	Total	Resource Manip.	Commitment Manip.	Defection Threat
Total	.64***	.51***	.58***	.40***
Derogating Physical Attractiveness	.61***	.58***	.53***	.28***
Derogating Value as a Partner/ Mental Competency	.45***	.30***	.46***	.25***
Derogating Value as a Person	.48***	.49***	.37***	.29***
Accusations of Sexual Infidelity	.46***	.27***	.37***	.54***

*** $p < .001$

^a All correlations remain significant using the Bonferroni corrected $\alpha = .0025$

Note. PDIS = Partner-Directed Insults Scale, SCIRS = Sexual Coercion in Intimate Relationships Scale.

Table 4.

Study 1b: Multiple Regression Analyses (Reported in Standardized Beta Weights), Using Women's Partner-Reports

<u>PDIS</u>	SCIRS				
	Total	Resource Manip.	Commitment Manip.	Defection Threat	
Derogating Physical Attractiveness	.44***	.49***	.37***	.11*	
Derogating Value as a Partner/ Mental Competency	.03	-.18***	.20***	-.05	
Derogating Value as a Person	.13**	.28***	-.03	.12*	
Accusations of Sexual Infidelity	.30***	.12**	.22***	.50***	
Full Model	<i>F</i>	84.35***	60.64***	51.80***	44.16***
	<i>R</i> ²	.48	.40	.36	.32

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. PDIS = Partner-Directed Insults Scale, SCIRS = Sexual Coercion in Intimate Relationships Scale.

Table 5.

Descriptive Statistics of Performance Frequencies and Test of Sex Differences Difference for Study 1a (Men's Self-Reports) and Study 1b (Women's Partner-Reports)

	Study 1a	Study 1b	
	Mean (SD)	Mean (SD)	F
PDIS			
Total	14.00 (16.40) 92%	11.49 (16.52) 92%	3.46
Derogating Physical Attractiveness	4.40 (8.67) 63%	3.16 (6.57) 49%	4.09*
Derogating Value as a Partner/ Mental Competency	7.56 (8.20) 88%	6.40 (8.68) 87%	2.78
Derogating Value as a Person	0.38 (1.22) 13%	0.51 (2.05) 13%	0.86
Accusations of Sexual Infidelity	1.68 (3.67) 33%	1.41 (3.61) 29%	0.84
SCIRS			
Total	3.52 (7.33) 47%	4.49 (9.11) 50%	1.94
Resource Manipulation	0.94 (2.56) 27%	1.10 (3.78) 22%	0.34
Commitment Manipulation	1.81 (3.90) 40%	2.74 (5.07) 47%	5.89*
Defection Threat	0.77 (2.25) 20%	0.66 (2.39) 14%	0.38

* $p < .05$

Note. Percentages represent percent non-zero responses per category (i.e. percentage of respondents reporting at least one incident of insulting or sexually coercive behavior in that category).

Table 6.

Descriptive Statistics of Performance Frequencies for Study 3

	All Participants Mean(SD)	Who is more desirable?		
		I am Mean (SD)	Equal Mean(SD)	She is Mean(SD)
SCIRS Total	3.79(9.81)	7.10(16.24)	1.66(4.52)	5.05(10.40)
Resource Manipulation/ Violence	1.04(3.26)	1.83(5.53)	.40(1.34)	1.51(3.50)
Commitment Manipulation	1.73(4.04)	2.81(6.09)	.90(1.97)	2.34(4.64)
Defection Threat	1.02(3.71)	2.45(7.17)	.37(1.59)	1.21(3.17)

Note. Means and standard deviations presented are according to responses provided based on the following scale: 0 = Act did not occur in the past month, 1 = Act occurred 1 time in the past month, 2 = Act occurred 2 times in the past month, 3 = Act occurred 3 to 5 times in the past month, 4 = Act occurred 6 to 10 times in the past month, 5 = Act occurred 11 or more times in the past month

APPENDIX A
Survey for Study 1a

Demographic Questionnaire

1. How long have you been involved in your current, committed, sexual relationship? _____ years and _____ months
2. What is your age? _____ years old
3. What is your partner's age? _____ years old

Partner Directed Insults Scale: Male Version

Instructions: Men sometimes try to hurt their female partner's feelings by saying insulting things to them. The following list includes insulting things that a man might say to his partner. In the column labeled 'How often (Use scale),' write the number from the scale below to indicate HOW OFTEN you have said each insulting thing to your partner.

- 0 = I have NEVER said this insulting thing to my partner
- 1 = I have said this insulting thing to my partner 1 time
- 2 = I have said this insulting thing to my partner 5 times
- 3 = I have said this insulting thing to my partner 6 to 10 times
- 4 = I have said this insulting thing to my partner 11 to 24 times
- 5 = I have said this insulting thing to my partner 25 OR MORE times

Please provide the most accurate answer you can. Keep in mind that your responses will be kept confidential. We appreciate your honesty and respect that some of these questions may be upsetting for you to answer.

How often

- _____ 1. I told my partner that she worries too much.
- _____ 2. I told my partner that she is mentally ill.
- _____ 3. I told my partner that she is ugly.
- _____ 4. I told my partner that she doesn't have any "real friends."
- _____ 5. I told my partner that she is a bad sex partner.
- _____ 6. I told my partner that no man would ever treat her better than I treat her.
- _____ 7. I called my partner a "nobody."
- _____ 8. I told my partner that she looks old.
- _____ 9. I accused my partner of wanting to have sex with one of my friends.
- _____ 10. I told my partner that our family is a failure because of her.
- _____ 11. I told my partner that she will never be able to keep a man happy.
- _____ 12. I told my partner that the time I have spent in a relationship with her has been "wasted time."
- _____ 13. I accused my partner of wanting to have sex with another man.
- _____ 14. I called my partner an "idiot."
- _____ 15. I told my partner that most women are more attractive than she is.
- _____ 16. I told my partner that she does not do anything for me.
- _____ 17. I told my partner that I wish she would meet another man, so that she wouldn't be my problem anymore.
- _____ 18. I told my partner that she is ignorant.
- _____ 19. I told my partner that she has an unattractive body.
- _____ 20. I called my partner a "whore" or a "slut."
- _____ 21. I told my partner that she is stupid.

- _____ 22. I told my partner that she gives me nothing.
- _____ 23. I accused my partner of having sex with many other men.
- _____ 24. I told my partner that no one likes her.
- _____ 25. I told my partner that I am too good for her.
- _____ 26. I told my partner that she makes my life miserable.
- _____ 27. I told my partner that she will never find someone better than me.
- _____ 28. I accused my partner of wanting to have sex with many other men.
- _____ 29. I told my partner that she makes me unhappy.
- _____ 30. I told my partner that she is fat.
- _____ 31. I told my partner that she is worthless.
- _____ 32. I told my partner that I want to watch her have sex with one of her female friends.
- _____ 33. I called my partner a "bitch."
- _____ 34. I told my partner that she doesn't deserve to live.
- _____ 35. I told my partner that she "ruins everything."
- _____ 36. I accused my partner of having sex with another man.
- _____ 37. I told my partner that she could never make it without me.
- _____ 38. I told my partner that she would never amount to anything.
- _____ 39. I told my partner that she is sexually abnormal.
- _____ 40. I told my partner that her breasts are ugly.
- _____ 41. I told my partner that her family is worthless.
- _____ 42. I told my partner that I want to have sex with one of her female friends.
- _____ 43. I told my partner that I am getting old.
- _____ 44. I told my partner that nothing she does is important.
- _____ 45. I told my partner that she deserves everything bad that happens to her.
- _____ 46. I told my partner that she is not good enough for me.
- _____ 47. I told my partner that it is her fault when something bad happens.

For men with children only:

- _____ 48. I told my partner that no man would want to be with her because she already has children.
- _____ 49. I told my partner that she is a bad mother.
- _____ 50. I told my partner that she doesn't know how to raise the children.

Sexual Coercion in Intimate Relationships Scale: Male Version

Instructions: Sexuality is an important part of romantic relationships and can sometimes be a source of conflict. Your honest responses to the following questions will contribute profoundly to what is known about sexuality in romantic relationships and may help couples improve the sexual aspects of their relationships. We appreciate that some of the questions may be uncomfortable for you to answer, but keep in mind that your responses will remain confidential.

Below is a list of acts that can occur in a romantic relationship. Please use the following scale to indicate HOW OFTEN in the past ONE month these acts have occurred in your current romantic relationship. Write the number that best represents your response in the blank space to the left of each act.

- 0 = Act did NOT occur in the past month
- 1 = Act occurred 1 time in the past month
- 2 = Act occurred 2 times in the past month
- 3 = Act occurred 3 to 5 times in the past month
- 4 = Act occurred 6 to 10 times in the past month
- 5 = Act occurred 11 OR MORE times in the past month

- _____ 1. I hinted that I would withhold benefits that my partner depends on if she did not have sex with me.
- _____ 2. I threatened to withhold benefits that my partner depends on if she did not have sex with me.
- _____ 3. I withheld benefits that my partner depends on to get her to have sex with me.
- _____ 4. I hinted that I would give my partner gifts or other benefits if she had sex with me.
- _____ 5. I gave my partner gifts or benefits so that she would feel obligated to have sex with me.
- _____ 6. I reminded my partner of gifts or other benefits that I have her so that she would feel obligated to have sex with me.
- _____ 7. I persisted in asking my partner to have sex with me, even though I knew she did not want to.
- _____ 8. I pressured my partner to have sex with me against her will.
- _____ 9. I initiated sex with my partner when she was unaware (for example, she was asleep, drunk, or on medication) and continued against her will.
- _____ 10. I threatened to physically force my partner to have sex with me.
- _____ 11. I physically forced my partner to have sex with me.
- _____ 12. I made my partner feel obligated to have sex with me.
- _____ 13. I hinted that I would have sex with another woman if my partner did not have sex with me.

- _____ 14. I threatened to have sex with another woman if my partner did not have sex with me.
- _____ 15. I told my partner that other couples have sex more than we do, to make her feel like she should have sex with me.
- _____ 16. I hinted that I might pursue a long-term relationship with another woman if my partner did not have sex with me.
- _____ 17. I threatened to pursue a long-term relationship with another woman if my partner did not have sex with me.
- _____ 18. I hinted that if my partner were truly committed to me, she would have sex with me.
- _____ 19. I told my partner that if she were truly committed to me, she would have sex with me.
- _____ 20. I hinted that if my partner loved me, she would have sex with me.
- _____ 21. I told my partner that if she loved me, she would have sex with me.
- _____ 22. I threatened violence against my partner if she did not have sex with me.
- _____ 23. I threatened violence against someone or something my partner cared about if she did not have sex with me.
- _____ 24. I hinted that other women were interested in a relationship with me, so that my partner would have sex with me.
- _____ 25. I told my partner that other women were interested in a relationship with me, so that she would have sex with me.
- _____ 26. I hinted that other women were interested in having sex with me, so that my partner would have sex with me.
- _____ 27. I told my partner that other women were interested in having sex with me, so that she would have sex with me.
- _____ 28. I hinted that other women were willing to have sex with me, so that my partner would have sex with me.
- _____ 29. I told my partner that other women were willing to have sex with me, so that my partner would have sex with me.
- _____ 30. I hinted that it was my partner's obligation or duty to have sex with me.
- _____ 31. I told my partner that it was her obligation or duty to have sex with me.
- _____ 32. I hinted that my partner was cheating on me, in an effort to get her to have sex with me.
- _____ 33. I accused my partner of cheating on me, in an effort to get her to have sex with me.
- _____ 34. My partner and I had sex, even though she did not want to.

Appendix B
Survey for Study 1b

Demographic Questionnaire

1. How long have you been involved in your current, committed, sexual relationship? _____ years and _____ months
2. What is your age? _____ years old
3. What is your partner's age? _____ years old

Partner Directed Insults Scale: Female Version

Instructions: Men sometimes try to hurt their female partner's feelings by saying insulting things to them. The following list includes insulting things that a man might say to his partner. In the column labeled 'How often (Use scale),' write the number from the scale below to indicate HOW OFTEN your partner has said each insulting thing to you.

- 0 = My partner has NEVER said this insulting thing to me
- 1 = My partner has said this insulting thing to me 1 time
- 2 = My partner has said this insulting thing to me 5 times
- 3 = My partner has said this insulting thing to me 6 to 10 times
- 4 = My partner has said this insulting thing to me 11 to 24 times
- 5 = My partner has said this insulting thing to me 25 OR MORE times

Please provide the most accurate answer you can. Keep in mind that your responses will be kept confidential. We appreciate your honesty and respect that some of these questions may be upsetting for you to answer.

How often

- _____ 1. My partner told me that I worry too much.
- _____ 2. My partner told me that I am mentally ill.
- _____ 3. My partner told me that I am ugly.
- _____ 4. My partner told me that I don't have any "real friends."
- _____ 5. My partner told me that I am a bad sex partner.
- _____ 6. My partner told me that no man would ever treat me better than he treats me.
- _____ 7. My partner called me a "nobody."
- _____ 8. My partner told me that I look old.
- _____ 9. My partner accused me of wanting to have sex with one of his friends.
- _____ 10. My partner told me that our family is a failure because of me.
- _____ 11. My partner told me that I will never be able to keep a man happy.
- _____ 12. My partner told me that the time he has spent in a relationship with me has been "wasted time."
- _____ 13. My partner accused me of wanting to have sex with another man.
- _____ 14. My partner called me an "idiot."
- _____ 15. My partner told me that most women are more attractive than I am.
- _____ 16. My partner told me that I do not do anything for him.
- _____ 17. My partner told me that he wishes I would meet another man, so that I wouldn't be his problem anymore.
- _____ 18. My partner told me that I am ignorant.
- _____ 19. My partner told me that I have an unattractive body.
- _____ 20. My partner called me a "whore" or a "slut."

- _____ 21. My partner told me that I am stupid.
- _____ 22. My partner told me that I give him nothing.
- _____ 23. My partner accused me of having sex with many other men.
- _____ 24. My partner told me that no one likes me.
- _____ 25. My partner told me that he is too good for me.
- _____ 26. My partner told me that I make his life miserable.
- _____ 27. My partner told me that I will never find someone better than him.
- _____ 28. My partner accused me of wanting to have sex with many other men.
- _____ 29. My partner told me that I make him unhappy.
- _____ 30. My partner told me that I am fat.
- _____ 31. My partner told me that I am worthless.
- _____ 32. My partner told me that he wants to watch me have sex with one of my female friends.
- _____ 33. My partner called me a "bitch."
- _____ 34. My partner told me that I don't deserve to live.
- _____ 35. My partner told me that I "ruin everything."
- _____ 36. My partner accused me of having sex with another man.
- _____ 37. My partner told me that I could never make it without him.
- _____ 38. My partner told me that I would never amount to anything.
- _____ 39. My partner told me that I am sexually abnormal.
- _____ 40. My partner told me that my breasts are ugly.
- _____ 41. My partner told me that my family is worthless.
- _____ 42. My partner told me that he wants to have sex with one of my female friends.
- _____ 43. My partner told me that I am getting old.
- _____ 44. My partner told me that nothing I do is important.
- _____ 45. My partner told me that I deserve everything bad that happens to me.
- _____ 46. My partner told me that I am not good enough for him.
- _____ 47. My partner told me that it is my fault when something bad happens.

For women with children only:

- _____ 48. My partner told me that no man would want to be with me because I already have children.
- _____ 49. My partner told me that I am a bad mother.
- _____ 50. My partner told me that I don't know how to raise the children.

Sexual Coercion in Intimate Relationships Scale: Male Version

Instructions: Sexuality is an important part of romantic relationships and can sometimes be a source of conflict. Your honest responses to the following questions will contribute profoundly to what is known about sexuality in romantic relationships and may help couples improve the sexual aspects of their relationships. We appreciate that some of the questions may be uncomfortable for you to answer, but keep in mind that your responses will remain confidential.

Below is a list of acts that can occur in a romantic relationship. Please use the following scale to indicate HOW OFTEN in the past ONE month these acts have occurred in your current romantic relationship. Write the number that best represents your response in the blank space to the left of each act.

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- 3 = Act occurred 3 to 5 times in the past month
- 4 = Act occurred 6 to 10 times in the past month
- 5 = Act occurred 11 OR MORE times in the past month

- _____ 1. My Partner hinted that he would withhold benefits that I depend on if I did not have sex with him.
- _____ 2. My partner threatened to withhold benefits that I depend on if I did not have sex with him.
- _____ 3. My partner withheld benefits that I depend on to get me to have sex with him.
- _____ 4. My partner hinted that he would give me gifts or other benefits if I had sex with him.
- _____ 5. My partner gave me gifts or benefits so that I would feel obligated to have sex with him.
- _____ 6. My partner reminded me of gifts or other benefits that he gave me so that I would feel obligated to have sex with him.
- _____ 7. My partner persisted in asking me to have sex with him, even though he knew I did not want to.
- _____ 8. My partner pressured me to have sex with him against my will.
- _____ 9. My partner initiated sex with me when I was unaware (for example, I was asleep, drunk, or on medication) and continued against my will.
- _____ 10. My partner threatened to physically force me to have sex with him.
- _____ 11. My partner physically forced me to have sex with him.
- _____ 12. My partner made me feel obligated to have sex with him.
- _____ 13. My partner hinted that he would have sex with another woman if I did not have sex with him.

- _____ 14. My partner threatened to have sex with another woman if I did not have sex with him.
- _____ 15. My partner told me that other couples have sex more than we do, to make me feel like I should have sex with him.
- _____ 16. My partner hinted that he might pursue a long-term relationship with another woman if I did not have sex with him.
- _____ 17. My partner threatened to pursue a long-term relationship with another woman if I did not have sex with him.
- _____ 18. My partner hinted that if I were truly committed to him, I would have sex with him.
- _____ 19. My partner told me that if I were truly committed to him, I would have sex with him.
- _____ 20. My partner hinted that if I loved him, I would have sex with him.
- _____ 21. My partner told me that if I loved him, I would have sex with him.
- _____ 22. My partner threatened violence against me if I did not have sex with him.
- _____ 23. My partner threatened violence against someone or something I cared about if I did not have sex with him.
- _____ 24. My partner hinted that other women were interested in a relationship with him, so that I would have sex with him.
- _____ 25. My partner told me that other women were interested in a relationship with him, so that I would have sex with him.
- _____ 26. My partner hinted that other women were interested in having sex with him, so that I would have sex with him.
- _____ 27. My partner told me that other women were interested in having sex with him, so that I would have sex with him.
- _____ 28. My partner hinted that other women were willing to have sex with him, so that I would have sex with him.
- _____ 29. My partner told me that other women were willing to have sex with him, so that I would have sex with him.
- _____ 30. My partner hinted that it was my obligation or duty to have sex with him.
- _____ 31. My partner told me that it was my obligation or duty to have sex with him.
- _____ 32. My partner hinted that I was cheating on me, in an effort to get me to have sex with him.
- _____ 33. My partner accused me of cheating on him, in an effort to get me to have sex with him.
- _____ 34. My partner and I had sex, even though I did not want to.

Appendix C
Survey for Study 2

Demographic Questionnaire

1. How long have you been involved in your current, committed, sexual relationship? _____ years and _____ months
2. What is your age? _____ years old
3. What is your partner's age? _____ years old
4. When was the last time you and your partner had sexual intercourse? Please think carefully about this and provide the most accurate answer you can.
_____ hours ago
5. Since the last time you and your partner had sexual intercourse, how many hours have you and your partner spent together, including sleeping time? Please think carefully about this and provide the most accurate answer you can.
_____ hours spent together since last sexual intercourse, including sleeping time

Sexual Coercion in Intimate Relationships Scale: Male Version

Instructions: Sexuality is an important part of romantic relationships and can sometimes be a source of conflict. Your honest responses to the following questions will contribute profoundly to what is known about sexuality in romantic relationships and may help couples improve the sexual aspects of their relationships. We appreciate that some of the questions may be uncomfortable for you to answer, but keep in mind that your responses will remain confidential.

Below is a list of acts that can occur in a romantic relationship. Please use the following scale to indicate HOW OFTEN in the past ONE month these acts have occurred in your current romantic relationship. Write the number that best represents your response in the blank space to the left of each act.

- 0 = Act did NOT occur in the past month
- 1 = Act occurred 1 time in the past month
- 2 = Act occurred 2 times in the past month
- 3 = Act occurred 3 to 5 times in the past month
- 4 = Act occurred 6 to 10 times in the past month
- 5 = Act occurred 11 OR MORE times in the past month

- _____ 1. I hinted that I would withhold benefits that my partner depends on if she did not have sex with me.
- _____ 2. I threatened to withhold benefits that my partner depends on if she did not have sex with me.
- _____ 3. I withheld benefits that my partner depends on to get her to have sex with me.
- _____ 4. I hinted that I would give my partner gifts or other benefits if she had sex with me.
- _____ 5. I gave my partner gifts or benefits so that she would feel obligated to have sex with me.
- _____ 6. I reminded my partner of gifts or other benefits that I have her so that she would feel obligated to have sex with me.
- _____ 7. I persisted in asking my partner to have sex with me, even though I knew she did not want to.
- _____ 8. I pressured my partner to have sex with me against her will.
- _____ 9. I initiated sex with my partner when she was unaware (for example, she was asleep, drunk, or on medication) and continued against her will.
- _____ 10. I threatened to physically force my partner to have sex with me.
- _____ 11. I physically forced my partner to have sex with me.
- _____ 12. I made my partner feel obligated to have sex with me.
- _____ 13. I hinted that I would have sex with another woman if my partner did not have sex with me.

- _____ 14. I threatened to have sex with another woman if my partner did not have sex with me.
- _____ 15. I told my partner that other couples have sex more than we do, to make her feel like she should have sex with me.
- _____ 16. I hinted that I might pursue a long-term relationship with another woman if my partner did not have sex with me.
- _____ 17. I threatened to pursue a long-term relationship with another woman if my partner did not have sex with me.
- _____ 18. I hinted that if my partner were truly committed to me, she would have sex with me.
- _____ 19. I told my partner that if she were truly committed to me, she would have sex with me.
- _____ 20. I hinted that if my partner loved me, she would have sex with me.
- _____ 21. I told my partner that if she loved me, she would have sex with me.
- _____ 22. I threatened violence against my partner if she did not have sex with me.
- _____ 23. I threatened violence against someone or something my partner cared about if she did not have sex with me.
- _____ 24. I hinted that other women were interested in a relationship with me, so that my partner would have sex with me.
- _____ 25. I told my partner that other women were interested in a relationship with me, so that she would have sex with me.
- _____ 26. I hinted that other women were interested in having sex with me, so that my partner would have sex with me.
- _____ 27. I told my partner that other women were interested in having sex with me, so that she would have sex with me.
- _____ 28. I hinted that other women were willing to have sex with me, so that my partner would have sex with me.
- _____ 29. I told my partner that other women were willing to have sex with me, so that my partner would have sex with me.
- _____ 30. I hinted that it was my partner's obligation or duty to have sex with me.
- _____ 31. I told my partner that it was her obligation or duty to have sex with me.
- _____ 32. I hinted that my partner was cheating on me, in an effort to get her to have sex with me.
- _____ 33. I accused my partner of cheating on me, in an effort to get her to have sex with me.
- _____ 34. My partner and I had sex, even though she did not want to.

Appendix D
Survey for Study 3

Demographic Questionnaire

1. How long have you been involved in your current, committed, sexual relationship? _____ years and _____ months
2. What is your age? _____ years old
3. What is your partner's age? _____ years old
4. Who is more desirable as a long-term romantic partner? Circle one number only:

0	1	2	3	4	5	6	7	8	9
Definitely									Definitely
No									Yes
5. As far as you know, has your current partner had sexual intercourse with someone other than you since you have been involved in a relationship together? Circle one number only:

0	1	2	3	4	5	6	7	8	9
Definitely									Definitely
No									Yes

Sexual Coercion in Intimate Relationships Scale: Male Version

Instructions: Sexuality is an important part of romantic relationships and can sometimes be a source of conflict. Your honest responses to the following questions will contribute profoundly to what is known about sexuality in romantic relationships and may help couples improve the sexual aspects of their relationships. We appreciate that some of the questions may be uncomfortable for you to answer, but keep in mind that your responses will remain confidential.

Below is a list of acts that can occur in a romantic relationship. Please use the following scale to indicate HOW OFTEN in the past ONE month these acts have occurred in your current romantic relationship. Write the number that best represents your response in the blank space to the left of each act.

- 0 = Act did NOT occur in the past month
- 1 = Act occurred 1 time in the past month
- 2 = Act occurred 2 times in the past month
- 3 = Act occurred 3 to 5 times in the past month
- 4 = Act occurred 6 to 10 times in the past month
- 5 = Act occurred 11 OR MORE times in the past month

- _____ 1. I hinted that I would withhold benefits that my partner depends on if she did not have sex with me.
- _____ 2. I threatened to withhold benefits that my partner depends on if she did not have sex with me.
- _____ 3. I withheld benefits that my partner depends on to get her to have sex with me.
- _____ 4. I hinted that I would give my partner gifts or other benefits if she had sex with me.
- _____ 5. I gave my partner gifts or benefits so that she would feel obligated to have sex with me.
- _____ 6. I reminded my partner of gifts or other benefits that I have her so that she would feel obligated to have sex with me.
- _____ 7. I persisted in asking my partner to have sex with me, even though I knew she did not want to.
- _____ 8. I pressured my partner to have sex with me against her will.
- _____ 9. I initiated sex with my partner when she was unaware (for example, she was asleep, drunk, or on medication) and continued against her will.
- _____ 10. I threatened to physically force my partner to have sex with me.
- _____ 11. I physically forced my partner to have sex with me.
- _____ 12. I made my partner feel obligated to have sex with me.
- _____ 13. I hinted that I would have sex with another woman if my partner did not have sex with me.

- _____ 14. I threatened to have sex with another woman if my partner did not have sex with me.
- _____ 15. I told my partner that other couples have sex more than we do, to make her feel like she should have sex with me.
- _____ 16. I hinted that I might pursue a long-term relationship with another woman if my partner did not have sex with me.
- _____ 17. I threatened to pursue a long-term relationship with another woman if my partner did not have sex with me.
- _____ 18. I hinted that if my partner were truly committed to me, she would have sex with me.
- _____ 19. I told my partner that if she were truly committed to me, she would have sex with me.
- _____ 20. I hinted that if my partner loved me, she would have sex with me.
- _____ 21. I told my partner that if she loved me, she would have sex with me.
- _____ 22. I threatened violence against my partner if she did not have sex with me.
- _____ 23. I threatened violence against someone or something my partner cared about if she did not have sex with me.
- _____ 24. I hinted that other women were interested in a relationship with me, so that my partner would have sex with me.
- _____ 25. I told my partner that other women were interested in a relationship with me, so that she would have sex with me.
- _____ 26. I hinted that other women were interested in having sex with me, so that my partner would have sex with me.
- _____ 27. I told my partner that other women were interested in having sex with me, so that she would have sex with me.
- _____ 28. I hinted that other women were willing to have sex with me, so that my partner would have sex with me.
- _____ 29. I told my partner that other women were willing to have sex with me, so that my partner would have sex with me.
- _____ 30. I hinted that it was my partner's obligation or duty to have sex with me.
- _____ 31. I told my partner that it was her obligation or duty to have sex with me.
- _____ 32. I hinted that my partner was cheating on me, in an effort to get her to have sex with me.
- _____ 33. I accused my partner of cheating on me, in an effort to get her to have sex with me.
- _____ 34. My partner and I had sex, even though she did not want to.

Appendix E
Curriculum Vitae

Valerie G. Starratt
March 2008

Florida Atlantic University
Department of Psychology
2912 College Ave.
Davie, FL 33314
vstarrat@fau.edu

Education

- Expected
May 2008 Ph.D. Florida Atlantic University
Boca Raton, Florida
Area of Specialization: Evolutionary Psychology
Dissertation: Risk of Female Infidelity and Male Sexual
Coercion in Intimate Relationships: An Evolutionary
Psychological Perspective
- 2006 M.A. Florida Atlantic University
Boca Raton, Florida
Area of Specialization: Evolutionary Psychology
Thesis: Men's Partner-Directed Insults and Sexual Coercion in
Intimate Relationships
- 2003 B.S. University of Florida
Gainesville, Florida
Major: Psychology

Publications

In Press and Published

- Starratt, V. G., Popp, D., & Shackelford, T. K. (in press). Female infidelity, male sexual coercion, and relative mate value. *Personality and Individual Differences*.
- Starratt, V. G., Goetz, A. T., Shackelford, T. K., Stewart-Williams, S. (in press). Men's partner-directed insults and sexual coercion in intimate relationships. *Journal of Family Violence*.
- Kaighobadi, F., Starratt, V. G., Shackelford, T. K., & Popp, D. (in press). Male mate retention mediates the relationship between female sexual infidelity and female-directed violence. *Personality and Individual Differences*.

- Starratt, V. G. & Shackelford, T. K. (in press). The basic components of the human mind were solidified during the Pleistocene epoch. In F. Ayala & R. Arp, *Contemporary Debates in Philosophy of Biology*. Blackwell Publishing.
- Goetz, A. T., Shackelford, T. K., Platek, S. M., Starratt, V. G., & McKibbin, W. F. (in press). Sperm competition in humans: Implications for male sexual psychology, physiology, anatomy, and behavior. *Annual Review of Sex Research*.
- Goetz, A. T., Shackelford, T. K., Starratt, V. G., & McKibbin, W. F. (in press). Violence in families. In J. Duntley and T. K. Shackelford (Eds.), *Evolutionary forensic psychology*. Oxford University Press.
- McKibbin, W. F., Shackelford, T. K., Goetz, A. T., & Starratt, V. G. (in press). Why do men rape? An evolutionary psychological perspective. *Review of General Psychology*.
- McKibbin, W. F., Shackelford, T. K., Goetz, A. T., & Starratt, V. G. (in press). Evolutionary psychological perspectives on rape. In J. D. Duntley & T. K. Shackelford (Eds.), *Evolutionary forensic psychology*. New York: Oxford University Press.
- Starratt, V.G., Shackelford, T.K., Goetz, A.T., & McKibbin, W.F. (2007). Male mate retention behaviors vary with risk of partner infidelity and sperm competition. *Acta Psychologica Sinica*, 39, 523-527
- Shackelford, T. K., Goetz, A. T., McKibbin, W. F., & Starratt, V. G. (2007). Absence makes the adaptations grow fonder: Proportion of time apart from partner, male sexual psychology, and sperm competition in humans (*Homo sapiens*). *Journal of Comparative Psychology*, 121, 214-220.
- McKibbin, W. F., Goetz, A. T., Shackelford, T. K., Schipper, L. D., Starratt, V.G., & Stewart-Williams, S. (2007). Why do men insult their intimate partners? *Personality and Individual Differences*, 43, 231-241.

Manuscripts under Editorial Review

- Shackelford, T. K. & Starratt, V. G. (invited, under review). Mate guarding and poaching. In H. Reis & S. Sprecher (Eds.), *Encyclopedia of Human Relationships*. Thousand Oaks, CA: SAGE Publications.

Presentations

- Goetz, A. T., Shackelford, T. K., Starratt, V. G., & McKibbin, W. F. (2007). Activating sperm competition psychology: An experimental study. Presented in symposium: "Sexual conflict in humans" (A. T. Goetz & T. K. Shackelford, Co-Chairs), *19th Annual Meeting of the Human Behavior and Evolution Society*. College of William and Mary, Williamsburg, VA.
- McKibbin, W. F., Shackelford, T. K., Goetz, A. T., & Starratt, V. G. (2007). Female adaptations for rape avoidance. Presented in symposium: "Sexual conflict in humans" (A. T. Goetz & T. K. Shackelford, Co-Chairs), *19th Annual Meeting of the Human Behavior and Evolution Society*. College of William and Mary, Williamsburg, VA.
- McKibbin, W. F., Goetz, A. T., Shackelford, T. K., Schipper, L. D., Starratt, V.G., & Stewart-Williams, S. (2006) Why do men insult their intimate partners? *18th Annual Meeting of the Human Behavior and Evolution Society*. University of Pennsylvania, Philadelphia.

Teaching Experience

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|--------------|--|
| 2008, Spring | <i>Instructor:</i> Intermediate Statistics Lab
Florida Atlantic University |
| 2007, Fall | <i>Instructor:</i> Intermediate Statistics Lab
Florida Atlantic University |
| 2007, Summer | <i>Teaching Assistant:</i> Experimental Studies in Personality
Florida Atlantic University
Todd K. Shackelford, PhD |
| 2007, Spring | <i>Instructor:</i> Intermediate Statistics Lab
Florida Atlantic University

<i>Co-Instructor:</i> Research in Evolutionary Psychology
Florida Atlantic University
Todd K. Shackelford, PhD
Aaron T. Goetz, PhD |
| 2006, Fall | <i>Instructor:</i> Intermediate Statistics Lab
Florida Atlantic University |

- 2006, Summer *Teaching Assistant:* Evolutionary Psychology
Florida Atlantic University
Todd K. Shackelford, PhD
- 2006, Spring *Teaching Assistant:* Experimental Design and Statistical
Inference
Florida Atlantic University
Charles White, PhD
- 2004, Summer-
2005, Fall *Instructor:* Intermediate Statistics Lab
Florida Atlantic University
- 2004, Spring
Inference *Teaching Assistant:* Experimental Design and Statistical
Inference
Florida Atlantic University
Todd K. Shackelford, PhD
- 2003, Fall *Teaching Assistant:* Intimate Relationships
Florida Atlantic University
John Touhey, PhD
- 2003, Fall *Teaching Assistant:* Social Psychological Change
Florida Atlantic University
John Touhey, PhD
- 2003, Fall *Teaching Assistant:* Individuals in Modern Culture
Florida Atlantic University
John Touhey, PhD

Editorial Activities

Referee for *Personality and Individual Differences*, *Journal of Family Violence*,
Human Nature, and *Evolutionary Psychology*

Grant Writing

National Institute of Health Parent ROI Grant

Funds requested for a research project, Conflict in Romantic Relationships, with the aim of investigating the causes of sexual coercion and violence against women in the context of an intimate relationship. If funded, this project would be carried out over three years with a total direct costs budget of roughly \$750,000.

Submitted June 2007

Not Funded

Eysenck Memorial Fund Grant
Funds requested for research expenses.
Submitted January 2007
Not Funded

Florida Atlantic University Graduate Grant
Funds requested for research expenses.
Submitted January 2007
Awarded February 2007

Sun-Sentinel Diversity Venture Fund
Funds requested for development and maintenance of the St. Jerome Catholic School's Social Justice Program, a program devoted to the development of critical thinking and problem-solving skills related to teasing and bullying and the avoidance and resolution of conflict.
Submitted March 2006 on behalf of St. Jerome Catholic School, Ft. Lauderdale, FL
Not Funded

Professional and Research Experience

- 2005-present *Member: Evolutionary Psychology Lab*
Department of Psychology, Florida Atlantic University
Davie, FL
Todd K. Shackelford, PhD
Data collection, data analysis, laboratory assistant training, manuscript preparation and submission, IRB application preparation and submission, undergraduate independent study instruction, development and maintenance of online research program
- 2003-2005 *Graduate Neuropsychology Research Laboratory Coordinator*
Department of Psychology, Florida Atlantic University
Davie, FL
Monica Rosselli, PhD
ERP data collection, data analysis, laboratory assistant training
- 2003 *Developmental Specialist*
Early Intervention Program,
Children's Diagnostic & Treatment Center
Fort Lauderdale, FL
Full-time employee of the North Broward Hospital District
Developmental test administration, children 6 months to 3 years

2001-2002 *Research Assistant*
Department of Psychology, University of Florida
Gainesville, FL
Ira Fischler PhD
Participant scheduling, ERP data collection, data analysis

Honors and Awards

2007 Jack B. Walker Memorial Scholarship
1999-2003 Florida Academic Scholars Award
1999-2001 University of Florida Honors Program

References

Todd K. Shackelford, PhD Department of Psychology
Florida Atlantic University
Davie, FL, 33314
(954) 236-1179
tshackel@fau.edu

Danielle Popp, PhD Department of Psychology
Florida Atlantic University
Davie, FL, 33314
(954) 236-1611
dpopp1@fau.edu

David Bjorklund, PhD Department of Psychology
Florida Atlantic University
Boca Raton, FL, 33431
(561) 297-3367
dbjorklu@fau.edu