

Intimate Partner Violence

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Violence in Families

The theory of evolution by natural selection revolutionized the study of biology. So too is it revolutionizing the study of human psychology and behavior. Charles Darwin himself predicted, “Psychology will be based on a new foundation, that of the necessary acquirement of each mental power and capacity by gradation. Light will be thrown on the origin of man and his history” (1859, p. 488). Modern evolutionary psychological perspectives have been used to predict and understand a diverse array of human behaviors, such as altruism, mating, and violence. In the past few decades, many psychologists have begun to recognize the value of using an evolutionary perspective to guide their research. With a focus on evolved mechanisms and associated information-processing features, evolutionary psychology has risen as a powerful heuristic tool for the study of human psychology and behavior. Evolutionary psychology leads researchers to look at old phenomena in a different light. Such a new perspective potentially offers powerful insights into human psychology and behavior. In this chapter, we use the tools provided by evolutionary theory to explore why violence and abuse occur between intimate partners. Specifically, we focus our discussion on physical and sexual intimate partner violence.

Paternal Uncertainty and the Function of Male Sexual Jealousy

Jealousy is an emotion that is experienced when a valued relationship is threatened by a real or imagined rival, and it generates responses aimed at stifling the threat. Jealousy functions to maintain relationships by motivating behaviors that deter

rivals from mate poaching and deter intimate partners from infidelity or outright departure from the relationship (Buss, Larsen, Westen, & Semmelroth, 1992; Daly, Wilson, & Weghorst, 1982; Symons, 1979). Because ancestral men and women recurrently faced the adaptive problems of retaining partners and maintaining relationships over human evolutionary history, men and women today do not differ in the frequency or intensity of experienced jealousy (Shackelford, LeBlanc, & Drass, 2000; White, 1981). A sex difference, however, is evident when considering two basic types of jealousy: emotional and sexual. This sex difference coincides with sex differences in the adaptive problems that ancestral men and women recurrently had to solve over human evolutionary history in the context of their mating relationships (Buss, 2000; Symons, 1979). Ancestral women's adaptive problem of securing the paternal investment needed to raise offspring exerted a selection pressure for women to be more sensitive to and more distressed by cues associated with a partner's *emotional* infidelity. Ancestral men's adaptive problem of paternal uncertainty (i.e., uncertainty regarding biological parenthood), however, exerted a selection pressure for men to be more sensitive to and more distressed by cues associated with a partner's *sexual* infidelity. Because emotional infidelity and sexual infidelity were highly correlated throughout evolutionary history (i.e., if an individual were engaging in one type of infidelity, he or she was often engaging in the other type of infidelity as well), researchers studying sex differences in jealousy have used forced-choice methods in which participants are asked to select which type of partner infidelity upsets them more. Recently, however, some researchers, such as Sagarin, Becker, Guadagno, Nicastle, and Millevoi (2003) and Wiederman and Allgeier (1993), also have found a sex difference in jealousy using continuous measures. At least two dozen studies have provided evidence of this sex difference in jealousy, documenting that men experience greater jealousy in response to the sexual aspects of an intimate partner's infidelity whereas women experience greater jealousy in response to the emotional aspects of an intimate partner's infidelity. These results are corroborated by experimental data (e.g., Schützwohl & Koch, 2004), physiological data (Buss et al., 1992), patterns of divorce (Betzig, 1989), and the behavioral output of jealousy, such as mate retention behaviors (e.g., Buss & Shackelford, 1997).

Men's sensitivity to and distress as a result of a partner's sexual infidelity are not surprising given the severe reproductive costs to men of cuckoldry (the unwitting investment of resources in genetically unrelated offspring). Some of the costs of cuckoldry include the potential misdirection of a man's resources to a rival's genetic offspring, his partner's investment in a rival's genetic offspring, and reputational damage if the cuckoldry becomes known to others (see Buss, 2000; Platek & Shackelford, 2006). Perhaps with the exception of death, cuckoldry is associated with the most severe reproductive costs for an individual man. It is therefore likely that selection will have resulted in the evolution of male strategies and tactics aimed at avoiding cuckoldry and decreasing paternal uncertainty.

Intimate Partner Violence and Sexual Jealousy

Male sexual jealousy is one of the most frequently cited causes of intimate partner violence (e.g., Buss, 2000; Daly & Wilson, 1988; Daly et al., 1982; Dobash & Dobash, 1979; Dutton, 1998; Dutton & Golant, 1995; Frieze, 1983; Gage & Hutchinson, 2006; Russell, 1982; Walker, 1979). Intimate partner violence is a tactic used by men to restrict a partner's sexual behavior (Buss & Malamuth, 1996; Daly & Wilson, 1988; Wilson & Daly, 1996) and may be best understood as a behavioral output of male sexual jealousy. A man may afford his partner many freedoms, but these freedoms rarely include sexual activity with other men (Buss, 1996, 2000). Men are hypothesized to have evolved mechanisms dedicated to generating risk assessments of a partner's sexual infidelity. These mechanisms include, for example, assessments of the time spent apart from his partner (i.e., time during which she might have been sexually unfaithful), the presence of potential mate poachers, his partner's reproductive value (i.e., expected future reproduction) and fertility (i.e., current likelihood of conceiving), and his partner's likelihood of committing infidelity (e.g., Goetz & Shackelford, 2006; Peters, Shackelford, & Buss, 2002; Schmitt & Buss, 2001; Shackelford & Buss, 1997; Shackelford et al., 2002; Trivers, 1972; Wilson & Daly, 1993). Moreover, the male mind may be designed to be hypersensitive to cues of his partner's sexual infidelity, motivating more false positives than false negatives because the benefits of the former outweigh the costs of the latter (Haselton & Nettle, 2006). Together with assessments of the likelihood of a partner's sexual infidelity, contextual factors—such as social and reputational costs, proximity of the partner's adult male kin (who might be motivated to retaliate for a man's violence against his partner), and economic dependency (Figueredo & McClosky, 1993; Wilson & Daly, 1993)—are processed by mechanisms of the male mind to inhibit or motivate men to inflict violence on their partners.

Occasionally, men's use of violence against their partners is lethal. As with non-lethal partner violence, male sexual jealousy is a frequently cited cause of intimate partner homicide across cultures (Daly & Wilson, 1988; Serran & Firestone, 2004). Killing an intimate partner is costly. But under specific circumstances, might the benefits have outweighed the costs enough for selection to produce a psychology that motivates partner killing? According to Daly and Wilson (Daly & Wilson, 1988; Wilson & Daly, 1998; Wilson, Daly, & Daniele, 1995), killing an intimate partner is not the designed product of evolved mechanisms but instead is a by-product of mechanisms selected for their nonlethal outcomes. This by-product or "slip-up" hypothesis states that men who kill their partners have "slipped up" in that their violence—which was intended to control an intimate partner's sexual behavior—inadvertently resulted in their partner's death.

The by-product hypothesis is attractive in that it would seem too costly to kill an intimate partner. Why kill a partner and risk the enormous costs that often flow from such actions when a man could simply end the relationship with the woman he suspects of sexual infidelity? But consider this: If killing an intimate partner is

a slip-up or accident, as argued by Daly and Wilson, why are so many partner homicides apparently premeditated? Hiring someone to kill a partner, aiming at and shooting a partner with a firearm, and slitting a partner's throat appear to be intentional killings, not accidental killings. Although some partner homicides may be accidental, too many seem premeditated and intended. This is one observation that led Buss and Duntley (1998, 2003; see also Buss, 2005) to propose that many intimate partner homicides are motivated by evolved mechanisms designed to motivate killing under certain conditions. Discovering a partner's sexual infidelity, Buss and Duntley argue, may be a special circumstance that motivates partner homicide. This "homicide adaptation theory" does not argue that discovering a partner's infidelity inevitably leads to homicide, but it does suggest that this circumstance would activate mechanisms associated with weighing the costs and benefits of homicide, and that under certain circumstances partner killing might be the designed outcome (for a fuller treatment, see Buss, 2005).

Daly and Wilson's (1988; Wilson & Daly, 1998; Wilson et al., 1995) and Buss and Duntley's (1998, 2003; Buss, 2005) competing hypotheses have not yet been examined concurrently to determine which hypothesis best accounts for the data (but see Shackelford, Buss, & Weekes-Shackelford, 2003). Our intention is not to critically evaluate these competing hypotheses. We intend to argue that intimate partner homicide, by design or as a by-product, is often the behavioral output of male sexual jealousy stemming from paternal uncertainty.

Men's "mate retention" or "mate guarding" behavior is another example of the behavioral output of jealousy. Buss (1988) identified specific mate guarding behaviors, such as vigilance (e.g., dropping by unexpectedly to check up on a partner) and concealment of mate (e.g., taking a partner away from a social gathering where other men are present). These mate guarding behaviors vary in ways that suggest they are produced by mechanisms that evolved as paternity guards. For example, a man guards his partner more intensely when she is of greater reproductive value (as indexed by her youth and attractiveness) and when the perceived probability of her sexual infidelity is greater (Buss & Shackelford, 1997). In addition, men who are partnered to women who have characteristics that make them more likely to commit sexual infidelity guard their partners more intensely (Goetz et al., 2005). Men also guard their partners more intensely after spending a greater proportion of time apart from them—a situation that inherently increases the possibility of sexual infidelity (Starratt, Shackelford, Goetz, & McKibbin, in press)—and when she is near ovulation, a time when an extra-pair copulation or sexual infidelity would be most costly for the in-pair man (Gangestad, Thornhill, & Garver, 2002).

Recognizing that men's mate retention behaviors are manifestations of jealousy, Shackelford, Goetz, Buss, Euler, and Hoier (2005) investigated the relationships between men's mate retention behaviors and intimate partner violence, specifically whether some mate retention behaviors and seemingly innocuous romantic gestures may be harbingers of violence. Securing self-reports from men, partner-reports from women, and cross-spouse reports from married couples, Shackelford

and his colleagues found that men's use of particular mate retention behaviors was related to partner violence in predictable ways. For example, men who dropped by unexpectedly to see what their partner was doing or who told their partner that she would "die" if she ever left him were most likely to use serious violence against their partners, whereas men who attempted to retain their partners by expressing affection and displaying resources were least likely to use violence against their partners. These findings corroborated the results of research conducted by Wilson, Johnson, and Daly (1995), who found that women who affirmed statements such as, "He insists on knowing who you are with and where you are at all times" and "He tries to limit your contact with family or friends" were twice as likely to have experienced serious violence by their partners.

Sexual Violence in Intimate Relationships and Sexual Jealousy

Between 10% and 26% of women experience rape in marriage (Abrahams, Jewkes, Hoffman, & Laubscher, 2004; Dunkle et al., 2004; Finkelhor & Yllo, 1985; Hadi, 2000; Painter & Farrington, 1999; Russell, 1982; Watts, Keough, Ndlovu, & Kwaramba, 1998). Rape also occurs in nonmarital intimate relationships. Goetz and Shackelford (2006) secured prevalence estimates of rape in intimate relationships from a sample of young men and from an independent sample of young women in a committed relationship. They documented that 7.3% of men admitted to raping their current partner at least once, and 9.1% of women admitted that they had experienced at least one rape by their current partner. Rape by physical force is just one form of sexual coercion in intimate relationships (Koss & Oros, 1982; Weis & Borges, 1973). Pressure may take the form of threats of violence, physical force, or intoxication but also may include more subtle tactics such as emotional manipulation (Shackelford & Goetz, 2004). Questions concerning sexual coercion and rape in relationships often do not encompass this wide range of behaviors; they also are emotionally loaded, and may be subject to social desirability concerns. These percentages therefore may be underestimates of the prevalence of rape in intimate relationships among young men and women who are not married.

Many hypotheses have been generated to explain why, across cultures, women are sexually coerced by their partners. Some researchers have hypothesized that sexual coercion in intimate relationships is motivated by men's attempts to dominate and control their partners (e.g., Basile, 2002; Bergen, 1996; Frieze, 1983; Gage & Hutchinson, 2006; Gelles, 1977; Meyer, Vivian, and O'Leary, 1998; Watts et al., 1998) and that this expression of power is the product of men's social roles (e.g., Brownmiller, 1975; Johnson, 1995; Yllo & Straus, 1990). Results relevant to this hypothesis are mixed. Several studies have found that physically abusive men are more likely than nonabusive men to sexually coerce their partners (Apt & Hurlbert, 1993; DeMaris, 1997; Donnelly, 1993; Finkelhor & Yllo, 1985; Koziol-McLain, Coates, & Lowenstein, 2001; Shackelford & Goetz, 2004), a result that is consistent with the

domination and control hypothesis. Gage and Hutchinson (2006), however, found that women's risk of sexual coercion by their partners is not related to measures assessing the relative dimensions of power in a relationship, such as who has more control over decision making. That is, women partnered to men who hold the dominant position in the relationship are not more likely to experience sexual coercion by their partners than women partnered to men who do not maintain the dominant position in the relationship, a result that does not support the domination and control hypothesis. Although many researchers agree that *individual men* may sexually coerce their partners to gain or maintain dominance and control in the relationship, proponents of the domination and control hypothesis often argue that men are motivated *as a group* to exercise "patriarchal power" or "patriarchal terrorism" over women (e.g., Brownmiller, 1975; Johnson, 1995; Yllo & Straus, 1990).

An alternative hypothesis has been advanced by researchers studying sexual coercion from an evolutionary perspective: sexual coercion in intimate relationships may be related to paternal uncertainty, with the occurrence of sexual coercion related to a man's suspicions of his partner's sexual infidelity (Camilleri, 2004; Goetz & Shackelford, 2006; Lalumière, Harris, Quinsey, & Rice, 2005; Thornhill & Thornhill, 1992; Wilson & Daly, 1992). Sexual coercion in response to cues of his partner's sexual infidelity might function to introduce a male's sperm into his partner's reproductive tract at a time when there is a high risk of cuckoldry (i.e., when his partner has recently been inseminated by a rival male). This sperm competition hypothesis was proposed following recognition that forced in-pair copulation (i.e., partner rape) in nonhuman species followed female extra-pair copulations (sexual infidelities; e.g., Barash, 1977; Cheng, Burns, & McKinney, 1983; Lalumière et al., 2005; McKinney, Cheng, & Bruggers, 1984) and that sexual coercion and rape in human intimate relationships often followed men's accusations of their partners' sexual infidelity (e.g., Finkelhor & Yllo, 1985; Russell, 1982). Before considering the case of partner rape in humans, we review briefly the animal literature on forced in-pair copulation. Examining the adaptive problems and evolved solutions to these problems in nonhuman animals may provide insight into the adaptive problems and evolved solutions in humans (and vice versa). Shackelford and Goetz (2006), for example, argued that because humans share with some avian species a similar mating system (social monogamy) and similar adaptive problems (e.g., paternal uncertainty, paternal investment in offspring, cuckoldry), humans and some birds may have evolved similar solutions to these adaptive problems. Identifying the contexts and circumstances in which forced in-pair copulation occurs in nonhuman species may help us to understand why forced in-pair copulation occurs in humans.

Forced In-Pair Copulation in Nonhuman Animals

Instances of forced in-pair copulation are relatively rare in the animal kingdom, primarily because males and females of most species (over 95%) do not form long-term pair-bonds (Andersson, 1994). Without the formation of a pair-bond, forced

in-pair copulation, by definition, cannot occur. Many avian species form long-term pair-bonds, and researchers have documented forced in-pair copulation in several of these species (Bailey, Seymour, & Stewart, 1978; Barash, 1977; Birkhead, Hunter, & Pellatt, 1989; Cheng et al., 1983; Goodwin, 1955; McKinney et al., 1984; McKinney & Stolen, 1982). Forced in-pair copulation reliably occurs immediately after female extra-pair copulations, intrusions by rival males, and female absence in many species of waterfowl (e.g., Bailey et al., 1978; Barash, 1977; Cheng et al., 1983; McKinney, Derrickson, & Mineau, 1983; McKinney & Stolen, 1982; Seymour & Titman, 1979) and other avian species (e.g., Birkhead et al., 1989; Goodwin, 1955; Valera, Hoi, & Kristin, 2003). Forced in-pair copulation following observed or suspected extra-pair copulation in these avian species is often interpreted as a sperm competition tactic (Barash, 1977; Cheng et al., 1983; Lalumière et al., 2005; McKinney et al., 1984).

Sperm competition is a form of male-male postcopulatory competition. Sperm competition occurs when the sperm of two or more males concurrently occupy the reproductive tract of a female and compete to fertilize her egg(s) (Parker, 1970). Males can compete for mates, but if two or more males have copulated with a female within a sufficiently short period of time, males must compete for fertilizations. Thus, the observation that in many avian species forced in-pair copulation immediately follows female extra-pair copulations has been interpreted as a sperm competition tactic because the in-pair male's forced in-pair copulation functions to place his sperm in competition with sperm from an extra-pair male (Birkhead et al., 1989; Cheng et al., 1983). Reports of forced in-pair copulation in nonhuman species make it difficult to claim that males rape their partners to humiliate, punish, or control them—as is often argued by some social scientists who study rape in humans (e.g., Pagelow, 1988).

Mounting evidence suggests that sperm competition has been a recurrent and important feature of human evolutionary history. Psychological, behavioral, physiological, anatomical, and genetic evidence indicates that ancestral women sometimes mated with multiple men within sufficiently short time periods so that sperm from two or more males concurrently occupied the reproductive tract of a woman (Baker & Bellis, 1993; Gallup et al., 2003; Goetz et al., 2005; Kilgallon & Simmons, 2005; Pound, 2002; Shackelford & Goetz, in press; Shackelford & Pound, 2006; Shackelford, Pound, & Goetz, 2005; Shackelford et al., 2002; Smith, 1984; Wyckoff, Wang, & Wu, 2000). This adaptive problem led to the evolution of adaptive solutions to sperm competition. For example, men display copulatory urgency, perform semen-displacing behaviors, and adjust their ejaculates to include more sperm when the likelihood of female infidelity is higher (Baker & Bellis, 1993; Goetz et al., 2005; Shackelford et al., 2002).

The selective importance of sperm competition in humans, however, is an issue of scholarly debate. Those questioning the application of sperm competition to humans (e.g., Birkhead, 2000; Dixson, 1998; Gomendio, Harcourt, & Roldán, 1998) do not contend that sperm competition in humans is not possible or unlikely but rather that it may not be as intense as in other species with adaptations to sperm

competition. When considering all the evidence of adaptations to sperm competition in men and current nonpaternity rates, which range from 1% to 30% (see Anderson, 2006; Bellis, Hughes, Hughes, & Ashton, 2005), it is reasonable to conclude that sperm competition may have been a recurrent and selectively important feature of human evolutionary history. Below, we discuss theory and research related to forced in-pair copulation in humans. In keeping with the established animal literature and a comparative evolutionary perspective, we often refer to partner rape in humans as forced in-pair copulation—the forceful act of sexual intercourse by a man against his partner’s will.

Forced In-Pair Copulation in Humans

Noting that instances of forced in-pair copulation follow extra-pair copulations in waterfowl and documentation that forced in-pair copulation in humans often follows accusations of female infidelity (e.g., Finkelhor & Yllo, 1985; Russell, 1982), Wilson and Daly (1992) suggested in a footnote that “sexual insistence” in the context of a relationship might act as a sperm competition tactic in humans as well. Sexual coercion in response to cues of his partner’s sexual infidelity might function to introduce a male’s sperm into his partner’s reproductive tract at a time when there is a high risk of cuckoldry.

Thornhill and Thornhill (1992) also hypothesized that forced in-pair copulation may function as an anti-cuckoldry tactic designed over human evolutionary history by selective pressures associated with sperm competition. Thornhill and Thornhill argued that a woman who resists or avoids copulating with her partner might thereby be signaling to him that she has been sexually unfaithful and that the forced in-pair copulation functions to decrease his paternal uncertainty. Thornhill and Thornhill argued that the fact that the rape of a woman by her partner is more likely to occur during or after a breakup—times in which men express greatest concern about female sexual infidelity—provides preliminary support for the hypothesis. For example, they cited research by Frieze (1983) indicating that women who were physically abused and raped by their husbands rated them to be more sexually jealous than did women who were abused but not raped. Similar arguments were presented by Thornhill and Palmer (2000), and Lalumière et al. (2005) suggested that antisocial men who suspect that their female partner has been sexually unfaithful may be motivated to engage in forced in-pair copulation.

Both indirect and direct empirical evidence supporting this hypothesis has been documented. Frieze (1983) and Gage and Hutchinson (2006), for example, found that husbands who raped their wives were more sexually jealous than husbands who did not rape their wives. Shields and Hanneke (1983) documented that victims of forced in-pair copulation were more likely to have reported engaging in extramarital sex than women who were not raped by their in-pair partner. Studying men’s partner-directed insults, Starratt, Goetz, Shackelford, McKibbin, and Stewart-Williams (under review) found in two studies that a reliable predictor of a man’s sexual coercion is

his accusations of his partner's sexual infidelity. Specifically, men who accuse their partners of being unfaithful (endorsing items such as "I accused my partner of having sex with many other men" and "I called my partner a 'whore' or a 'slut' ") were more likely to sexually coerce them.

Direct empirical evidence supporting this hypothesis is accumulating. Camilleri (2004), for example, found that the risk of a partner's infidelity predicted sexual coercion among male participants but not female participants. It is biologically impossible for women to be cuckolded, so one would not expect women to have a sperm competition psychology that would generate sexually coercive behavior in response to their male partner's sexual infidelity. Goetz and Shackelford (2006) documented in two studies that a man's sexual coercion in the context of an intimate relationship is related positively to his partner's infidelities. According to men's self-reports and women's partner-reports, men who used more sexual coercion in their relationship were partnered to women who had been or were likely to be unfaithful, and these men also were likely to use more mate retention behaviors.

Because cuckoldry is associated with substantial reproductive costs for males of paternally investing species, men are expected to have evolved adaptations to address the adaptive problem of paternal uncertainty. One such adaptation may be a sperm competition tactic whereby sexual coercion and forced in-pair copulation function to increase the likelihood that the in-pair male, and not a rival male, sires the offspring that his partner might produce. It may be that a proportion of sexually coercive behaviors (in the context of an intimate relationship) are performed by antisocial men who aim to punish, humiliate, or control their partners *independent of their perception of cuckoldry risk*. We are not arguing that all sexual coercion and forced in-pair copulations are the output of evolved mechanisms designed to reduce the risk of being cuckolded. Instead, we are suggesting that sexual coercion might sometimes be the result of male evolved psychology associated with male sexual jealousy.

Conclusion

It is possible to study intimate partner violence with little or no knowledge of evolution. Most do. Those who study intimate partner violence from an evolutionary perspective often ask questions that are different from those asked by most clinical and forensic psychologists. Evolutionary psychologists are interested in ultimate (or distal) explanations, referring to the evolved function of a trait, behavior, or mechanism. This is in contrast to proximate explanations, which refer to the immediate causes of a trait, behavior, or mechanism. Although the explanations are different, they are compatible and equally important (Sherman & Alcock, 1994). A fuller understanding of intimate partner violence will be reached when both ultimate and proximate explanations are empirically supported.

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