EVOLUTIONARY PSYCHOLOGICAL PERSPECTIVES ON MEN’S PARTNER-
DIRECTED VIOLENCE IN CONTEXT OF PERCEIVED PARTNER INFIDELITY

by

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This dissertation was prepared under the direction of the candidate’s dissertation advisor, Dr. David F. Bjorklund, 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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ABSTRACT

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Evolutionary psychology offers a framework for investigating the design of evolved information-processing mechanisms that motivate costly behaviors such as men’s partner-directed violence. The current research investigated predictors of and individual differences in men’s intimate-partner-directed violence from an evolutionary psychological perspective. The problem of paternity uncertainty is hypothesized to have selected for the emotion of male sexual jealousy, which in turn motivates men’s non-violent and violent mate-retention behaviors. Study 1 documented a hierarchy of behaviors initiated with men’s suspicions of partner infidelity leading to men’s engagement in frequent non-violent mate-retention behaviors, ending in men’s partner-directed violence. Study 2 documented an interaction between men’s personality traits and the context of perceived partner infidelity risk to predict men’s perpetration of violence. Finally, Study 3 extended Studies 1 and 2 by building a causal cascade model...
that captures the hierarchy of adaptive behaviors in order of: (1) men’s childhood experiences with their parents’ parental effort, (2) men’s adaptive life history strategies and behavioral self-regulation, (3) men’s perceptions of partner infidelity risk, and (4) men’s non-violent mate retention behaviors, conclusively predicting men’s perpetration of violence in intimate relationships.
EVOLUTIONARY PSYCHOLOGICAL PERSPECTIVES ON MEN’S PARTNER-DIRECTED VIOLENCE IN CONTEXT OF PERCEIVED PARTNER INFIDELITY

List of Tables ........................................................................................................... ix
List of Figures ........................................................................................................... x
Introduction ............................................................................................................. 1

Paternity Uncertainty and Male Sexual Jealousy ................................................. 4
Male Sexual Jealousy and Mate-retention behaviors ......................................... 6
Forced In-Pair Copulation ....................................................................................... 7
Risk of Sperm Competition and Sexual Coercion .............................................. 9
Individual Differences in Intimate Partner Violence ........................................ 13
Personality and Intimate Partner Violence in Context ........................................ 15
The Context of Perceived Partner Infidelity Risk ............................................... 15
Life History (LH) Strategies and Intimate Partner Violence .............................. 16

Study 1 ...................................................................................................................... 20

Mediating Role of Direct Guarding ...................................................................... 20

Study 1-A: Men’s Self-Reports ........................................................................... 21

Method ..................................................................................................................... 21

Participants ............................................................................................................ 21

Materials ............................................................................................................... 22
Procedures…………………………………………………………23

Results and Discussion ....................................................... 24

Study 1-B: Women’s Partner-Reports ..................................... 25

Method .................................................................................. 25

Participants .......................................................................... 25

Materials ............................................................................... 26

Procedures ........................................................................... 26

Results and Discussion .......................................................... 26

Comparison of Men’s Self-Reports and Women’s Partner-Reports ....... 27

Discussion .............................................................................. 28

Study 2 .................................................................................. 31

Method .................................................................................. 32

Participants .......................................................................... 32

Materials ............................................................................... 33

Procedures ........................................................................... 34

Results ................................................................................. 34

Simple-slope analysis .............................................................. 36

Discussion .............................................................................. 38

Study 3 .................................................................................. 41

Experiences with Parental Effort in Childhood Predicts Life History

Strat...
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Regulation may Predict Perceptions of Partner Infidelity Risk</td>
<td>43</td>
</tr>
<tr>
<td>Perceptions of Partner Infidelity Risk may Predict Frequency of</td>
<td></td>
</tr>
<tr>
<td>Mate Retention Behaviors</td>
<td>44</td>
</tr>
<tr>
<td>Frequency of Mate Retention Behaviors may Predict IPV</td>
<td>44</td>
</tr>
<tr>
<td>What is a Cascade Model?</td>
<td>44</td>
</tr>
<tr>
<td>Method</td>
<td>45</td>
</tr>
<tr>
<td>Participants</td>
<td>45</td>
</tr>
<tr>
<td>Materials</td>
<td>46</td>
</tr>
<tr>
<td>Procedures</td>
<td>49</td>
</tr>
<tr>
<td>Results</td>
<td>50</td>
</tr>
<tr>
<td>The Measurement Model</td>
<td>50</td>
</tr>
<tr>
<td>The Structural Model</td>
<td>51</td>
</tr>
<tr>
<td>Discussion</td>
<td>52</td>
</tr>
<tr>
<td>General Discussion</td>
<td>56</td>
</tr>
<tr>
<td>Appendices</td>
<td>73</td>
</tr>
<tr>
<td>References</td>
<td>96</td>
</tr>
</tbody>
</table>
TABLES

Table 1. Means and Standard Deviations of Measures (Study 1) .......................... 62
Table 2. Summary of Mediation Analyses (Study 1)........................................... 63
Table 3. Correlations between the Main Variables (Study 2) ................................. 64
Table 4. Main and Interaction Effects of Men’s Personality Traits and Perceived

   Partner Infidelity Risk on Partner-Directed Violence (Study 2) ...................... 65
Table 5. The Mean scores, Standard Deviations, and Cronbach’s Alphas and

   part-whole correlations between each scale and the factor (Study 3)............. 66
FIGURES

Figure 1. Summary of mediating regression analyses with $\beta$ weights based on men’s self-reports (Study 1-A)……………………………………………………67

Figure 2. Summary of mediating regression analyses with $\beta$ weights based on women’s partner-reports (Study 1-B)……………………………………………68

Figure 3. The relationship between men’s emotional stability and partner-directed violence at different levels of perceived infidelity risk (Study 2)…………………69

Figure 4. The relationship between men’s agreeableness and partner-directed violence at different levels of perceived infidelity risk (Study 2)……………..70

Figure 5. The relationship between men’s conscientiousness and partner-directed violence at different levels of perceived infidelity risk (Study 2)………………71

Figure 6. The Cascade Model (Study 3)…………………………………………………………..72
INTRODUCTION

According to the United States Department of Justice, between 2001 and 2005, 22% of reported incidents of nonfatal violence against women aged 12 or older were perpetrated by an intimate partner (Bureau of Justice Statistics, 2007). This amounts to nearly 600,000 reported incidents of nonfatal violence against women by an intimate partner in just a single year in the United States (Bureau of Justice Statistics, 2007). Partly in response to the tragically high incidence of female-directed violence in intimate relationships and the devastating physical and psychological consequences of these behaviors, a large literature has been dedicated to investigating risk factors and predictors associated with men’s violence against intimate partners. Empirical studies of Intimate Partner Violence (IPV) could be categorized under two major theoretical perspectives: (1) Standard Social Science Theories, and (2) Evolutionary Psychological Theories. In this Chapter, I first introduce Standard Social Science Theories of IPV and then introduce an Evolutionary Psychological perspective on IPV. The rest of the chapter expands on Evolutionary Psychology, introducing the empirical literature on predictors of IPV. The goal of this dissertation is to build a model of men’s violence in intimate relationships including predictors from both perspectives.

Standard Social Science Theories focus on the Intrapersonal, Interpersonal, as well as situational predictors of violence, in general, and violence in intimate relationships, in particular. Studies informed by the Intrapersonal theories investigate the
individual’s biological (e.g., genetic heritability, see Caspi et al., 2002) and psychological predictors (e.g. personality disorders, see Dutton, 2008; Holtzworth-Munroe & Stuart, 1994) of IPV. Studies informed by Interpersonal theories investigate individual’s experience in interaction with others during development or in adulthood. For example social learning theories propose that witnessing adult models of IPV throughout childhood may predict IPV perpetration and victimization in adulthood (Hines & Saudino, 2009). Family history of aggression, in general, has been empirically supported as a predictor of IPV in adulthood (Busby, Holman, & Walker, 2008; Riggs & O’Leary, 1996). Other proximate socio-situational predictors of IPV include unemployment (Campbell, et al., 2003), alcohol use (Klostermann & Fals-Stewart, 2006), and cultural influences (e.g., Archer, 2006a; Gage & Hutchinson, 2006).

More recently, the field of Evolutionary Psychology has investigated the ultimate or evolutionary predictors of men’s partner-directed violence, such as men’s perception of partner infidelity risk (Kaighobadi, Starratt, Shackelford, Popp, 2008), men’s life history strategies (Figueroedo, Gladden, & Beck, 2010), and male sexual jealousy as a solution to the adaptive problem of paternity uncertainty (e.g., Goetz, Shackelford, Romero, Kaighobadi, & Miner 2008; Shackelford et al., 2005). Evolutionary psychology is concerned with identifying the design and function of the psychological mechanisms that motivate such costly, but prevalent behaviors. Moreover, evolutionary psychology investigates individual differences in violence in different evolutionary adaptive contexts (e.g. Hill & Hurtado, 1996; Kaighobadi et al., 2009).

Increasingly over the past several decades, social scientists have recognized the value of an evolutionary perspective for guiding their research (e.g., Archer, 2006b; Daly
Evolutionary psychological theories have been applied successfully to the investigation of diverse human behaviors. Evolutionary psychology is concerned with identifying and describing the design and function of psychological adaptations that evolved to solve the specific problems our ancestors faced recurrently over human evolutionary history. These evolved mechanisms are information-processing devices that motivate behavior in response to particular environmental inputs. An evolutionary psychological perspective can guide research on intimate partner violence, notably research on the evolved mechanisms that motivate these behaviors and individual differences in perpetration of violence.

The goal of this dissertation and the three studies included is to build a comprehensive model of predictors of IPV informed mainly by evolutionary psychological perspectives but also considering individual-difference variables that may contribute to the understanding of IPV in an evolutionary context. The first study investigates the link between men’s perceptions of partner infidelity and violent mate-retention behaviors and the mediating role of non-violent mate-retention behaviors. The second study investigates individual differences in men’s partner-directed violence as assessed by the Five Factor Model of personality and an interaction between men’s personality and perceptions of partner infidelity to predict violence. The third study compliments the first two studies by building a causal cascade model, including additional variables such as experiences with parental investment, life history strategies and behavioral self-regulation, all contributing to the understanding of men’s perpetration of violence in intimate relationships. The rest of this Chapter introduces the previous theoretical and empirical literature investigating the predictors of IPV, beginning by
introducing the adaptive problem of paternity uncertainty and how it may relate to men’s perpetration of violence in intimate relationships. I then introduce individual differences in men’s frequency of IPV, including the predictive utility of men’s personality traits men’s life history strategies.

**Paternity Uncertainty and Male Sexual Jealousy**

Over human evolutionary history, men and women have faced the adaptive problems of maintaining relationships and retaining intimate partners. Jealousy is an emotion that motivates behaviors that deter mate-poaching rivals and prevents partner infidelity or outright desertion from the relationship (Buss, Larsen, Westen, & Semmelroth, 1992; Daly, Wilson, & Weghorst, 1982; Symons, 1979). Men and women do not differ in the frequency or intensity with which they experience jealousy (Shackelford, LeBlanc, & Drass, 2000). However, men and women respond differently to two different types of partner infidelity, emotional infidelity and sexual infidelity. Men are more distressed about a partner’s sexual infidelity than about her emotional infidelity, whereas the opposite pattern is found for women. This sex difference has been documented in more than a dozen empirical studies using various methods, including forced-choice self-report assessments (Buss et al., 1999), physiological assessments (Buss et al., 1992), experimental methods (Schutzwohl, 2005, 2008; Thomson, Patel, Platek, & Shackelford, 2007), and archival and cross-cultural data (e.g., Betzig, 1989).

The sex difference in the experience of jealousy may be attributable to sex-specific adaptive problems humans faced over our evolutionary history (Buss, 2000; Symons, 1979). It is hypothesized that ancestral women faced the recurrent problems of paternal investment and acquisition and retention of resources with which to raise
offspring. A partner’s emotional infidelity might have predicted his current or future investment of resources in another woman and another woman’s children. In contrast, a man’s sexual infidelity, in a short-term extra-pair relationship, does not necessarily lead to resource allocation in the extra-pair relationship. Thus, a man’s emotional infidelity is more costly to the in-pair partner than his sexual infidelity. Ancestral men, in contrast, faced the adaptive problem of paternity uncertainty. Female sexual infidelity and subsequent cuckoldry—a male’s unwitting investment in offspring to whom he is not genetically related—carried substantial reproductive costs for ancestral men. The reproductive costs of cuckoldry, including the loss of time, energy, resources, and alternative mating opportunities, are potentially so great that men have evolved to be sensitive to and to experience more distress about a partner’s sexual infidelity. Men also may have evolved mechanisms that assess the risk of partner sexual infidelity and mechanisms that motivate the performance of anti-cuckoldry tactics. Goetz (2007) hypothesized that to assess the likelihood or risk of partner sexual infidelity, these information-processing mechanisms may use cues such as greater time spent apart from the partner, the presence of potential rivals, and a partner’s attractiveness, or her “mate value” as a short-term partner or long-term partner (Goetz & Shackelford, 2006; Peters, Shackelford, & Buss, 2002; Schmitt & Buss, 2001; Shackelford & Buss, 1997; Shackelford, Goetz, McKibbin, & Starratt, 2007; Trivers, 1972; Wilson & Daly, 1993). The behavioral output of male sexual jealousy varies from subtle nonviolent mate-retention behaviors to outright physical violence.
Male Sexual Jealousy and Mate-retention behaviors

One class of behavioral output of sexual jealousy is men’s mate-retention behaviors, which functions to prevent a partner’s infidelity or outright relationship defection or to thwart rivals’ attempts to encroach on the relationship. Buss (1988a) developed a taxonomy of mate-retention behaviors organized into five categories: acts of direct guarding function to keep a partner under surveillance; acts of intersexual negative inducements include threats to punish a partner’s infidelity; acts of positive inducements include expressions of affection and care; acts of public signals of possession include acts intended to signal possession of a partner to potential rivals; and acts of intrasexual negative inducements include acts intended to threaten potential rivals and thereby deter them from encroaching on the relationship. As the risk of a partner’s infidelity increases, men perform more frequent mate-retention behaviors. For example, Buss and Shackelford (1997) found that men mated to younger, more attractive partners (cues to reproductive value or expected future reproduction) and men who perceive greater probability of partner infidelity guard their partners more intensely. Also, men perform more frequent mate-retention behaviors when they are mated to women who possess qualities that predict her infidelity, including her personality characteristics such as surgency and openness to experience (Goetz et al., 2005), and when their partner is near ovulation—a time when a female infidelity would be most costly for the in-pair male (Gangestad, Thornhill, & Garver, 2002). Because time spent physically apart from a partner increases the risk of a partner’s infidelity, men who have spent a greater proportion of time apart from their partners since the couple last copulated also report engaging in more frequent mate-retention behaviors (Starratt, Shackelford, Goetz, &
McKibbin, 2007). Finally, men who accuse their partner of infidelity are also more likely to engage in more frequent non-violent mate-retention behaviors (Kaighobadi et al., 2008, McKibbin et al., 2007).

A more physically damaging output of male sexual jealousy is partner-directed violence. Male sexual jealousy is one of the most frequently cited causes of men’s partner-directed violence, both physical and sexual (e.g., Buss, 2000; Daly & Wilson, 1988; Daly et al., 1982; Dobash & Dobash, 1979; Dutton, 1998; Frieze, 1983; Gage & Hutchinson, 2006; Russell, 1982; Walker, 1979). For example, recent studies have reported positive correlations between suspicions of female infidelity and men’s partner-directed sexual coercion, a specific class of partner-directed violence (Goetz & Shackelford, 2006; Starratt, Goetz, Shackelford, & McKibbin, in press). Additional research has documented a positive relationship between men’s sexual coercion of their partner and men’s partner-directed violence (Shackelford & Goetz, 2004). Although this literature indicates that suspicions of female infidelity predict men’s sexual coercion and that men’s sexual coercion is a form of partner-directed violence, I am unaware of any research that has assessed the direct relationship between accusations of female infidelity and men’s partner-directed violence. Study 1 investigates this relationship.

**Forced In-Pair Copulation**

Instances of forced in-pair copulation (FIPC) have been documented in avian species that form long-term pair-ponds (Bailey, Seymour, & Stewart, 1978; Barash, 1977; Birkhead & Møller, 1992; Birkhead, Hunter, & Pellatt, 1989; Cheng et al., 1983; Goodwin, 1955; McKinney et al., 1984; Tryjanowski, Antczak, & Hromada, 2007). FIPC is hypothesized to be a form of post-copulatory male-male competition, i.e., a sperm
competition tactic (Barash, 1977; Cheng et al., 1983; Lalumière et al., 2005; McKinney et al., 1984), because it often follows a female partner’s extra-pair copulation or intrusions by rival males (e.g., Bailey et al., 1978; Barash, 1977; Birkhead et al., 1989; Cheng et al., 1983; Goodwin, 1955; McKinney, Derrickson, & Mineau, 1983; Seymour & Titman, 1979; Valera, Hoi, & Kristin, 2003). Sperm competition occurs when a female copulates with and is inseminated by more than one male in a sufficiently brief period of time (Parker, 1970). Thus, by forcing the female to copulate shortly after the increased risk of insemination by a rival, males place their sperm in competition with any sperm deposited into their partner by a rival male (Birkhead et al., 1989; Cheng et al., 1983). By engaging in extra-pair copulation in secluded areas, females of some avian species decrease the chance of discovery by their regular partner and, therefore, decrease the likelihood of a retaliatory forced copulation (Tryojanowski, 2007). Males also decrease the risk of sperm competition by frequent in-pair copulation and by close mate guarding (Birkhead & Møller, 1992).

Observations of sperm competition in non-human species offer a framework with which to consider similar adaptations in humans, who also form long-term socially monogamous pair-bonds. Recent evidence suggests that sperm competition has been a recurrent feature of human evolutionary history and that men have physiological and psychological mechanisms that may have evolved to solve related adaptive problems (Baker & Bellis, 1993; Gallup et al., 2003; Goetz et al., 2005; Kilgallon & Simmons, 2005; Pound, 2002; Shackelford & Goetz, 2007; Shackelford & Pound, 2006; Shackelford, Pound, & Goetz, 2005; Shackelford et al., 2002; Smith, 1984; Wyckoff, Wang, & Wu, 2000). For example, with increased risk of a partner’s infidelity, men
display copulatory urgency, perform more semen-displacing behaviors at next copulation, and adjust their ejaculates to include more sperm (Baker & Bellis, 1993; Goetz et al., 2005; Shackelford et al., 2007). Men’s perception of their partner’s physical and sexual attractiveness—a proxy for risk of sperm competition—also predicts the frequency of in-pair copulations. Men engage in more frequent in-pair copulations when they perceive their partner to be more physically and sexually attractive (Kaighobadi & Shackelford, 2008).

**Risk of Sperm Competition and Sexual Coercion**

Male sexual coercion and rape of an intimate partner also are hypothesized manifestations of male sexual jealousy, which may be a response to perceived risk of sperm competition. Previous research indicates that between 9% and 26% of women report being raped by their husband (Finkelhor & Yllo, 1985; Hadi, 2000; Painter & Farrington, 1999; Russell, 1982; Watts, Keough, Ndlovu, & Kwaramba, 1998). In another sample of young adults in a committed, sexual relationship, Goetz and Shackelford (2006) found that 7.3% of men admitted to at least one incidence of raping their current partner, and that 9.1% of women reported having experienced at least one incidence of rape by their current partner.

Many studies have investigated men’s sexual coercion in an intimate relationship. A number of hypotheses have been formulated to test the proximate or immediate predictors of men’s sexual coercion of an intimate partner and also the ultimate or evolutionary predictors of men’s sexual coercion of an intimate partner. Several scholars have argued that men’s sexual coercion of their partner is motivated by a desire to dominate and control their partners (e.g., Bergen, 1996; Frieze, 1983; Gage &
For example, several studies have found that men who are physically abusive toward
their partners also are more likely to be sexually coercive toward their partners than are
men who are not physically abusive (Apt & Hurlbert, 1993; DeMaris, 1997; Donnelly,
1993; Finkelhor & Yllo, 1985; Koziol-McLain, Coates, & Lowenstein, 2001; Shackelford
& Goetz, 2004). Shackelford and Goetz (2004) also found a positive relationship between
men’s nonviolent controlling behaviors and men’s sexual coercion of their partners. Gage
and Hutchinson (2006) found that women’s experience of sexual coercion by their
partner was predicted by their partner’s jealousy and nonviolent controlling behaviors,
but was not predicted by differences in social power between the partners. To address
these apparently conflicting results regarding sexual coercion of intimate partners and
men’s motivation to gain or exert control over their partners, Goetz and Shackelford
(2009) investigated several relevant predictors of sexual coercion, securing men’s self-
reports and women’s partner-reports. They found that men’s sexual coercion of their
partners was predicted by both suspicions of female infidelity and by men’s controlling
behavior, suggesting that both classes of variables contribute to an explanation of men’s
sexual coercion in intimate relationships.

The desire to dominate and control a partner may explain some portion of the
individual differences in men’s sexually coercive behaviors, but the proponents of the
domination and control hypothesis argue that men as a group are motivated to exert
“patriarchal terrorism” or “patriarchal power” over all women through sexual coercion of
their own partners (e.g., Brownmiller, 1975; Johnson, 1995; Yllo & Straus, 1990). These
hypotheses however, do not seem to be empirically tested. Furthermore, the hypotheses
that propose coordinated male-male cooperation to dominate and control women are not consistent with substantial theoretical and empirical work that highlights the frequency and intensity of male-male competition (rather than cooperation) for attracting women as intimate partners (Bleske & Shackelford, 2001; Buss, 1988b; Schmitt & Buss, 1996; Trivers, 1972).

Sexual coercion also is hypothesized to function as an anti-cuckoldry tactic (Camilleri, 2004; Gallup & Burch, 2006; Lalumière, Harris, Quinsey, & Rice, 2005; Thornhill & Thornhill, 1992; Wilson & Daly, 1992; see also Goetz & Shackelford, 2006). It has been hypothesized that, by forcing their partners to have sex, men who are suspicious of their partner’s infidelity introduce their own sperm into their partner’s reproductive tract and thereby decrease the risk of cuckoldry. This sperm competition hypothesis for partner-rape has been applied to non-humans (notably, several avian species) to account for observations of partner-rape immediately following female extra-pair copulations (e.g., Barash, 1977; Cheng, Burns, & McKinney, 1983; McKinney, Cheng, & Bruggers, 1984). Rape of an intimate partner in humans also often follows accusations of female sexual infidelity (e.g., Finkelhor & Yllo, 1985; Russell, 1982).

Gallup and Burch (2006) proposed the “intra-pair copulation proclivity model” of female infidelity to predict and explain variance in the likelihood of men’s sexual coercion of their partner following female sexual infidelity. Gallup and Burch argued that, on one hand, men have a propensity to engage in immediate copulation with their partner when they perceive a high risk of recent female infidelity. On the other hand, women may attempt to avoid copulating with their regular partner immediately after an extra-pair copulation. Extra-pair copulations may function to secure “good” genes from
men other than their regular partner, and copulating immediately with her regular partner may cause displacement of the extra-pair sperm or otherwise interfere with the ability of the extra-pair sperm to fertilize the woman’s egg(s). Thus, Gallup and Burch argue that men’s copulatory urgency following detection of partner infidelity, and women’s concurrent copulatory reluctance, may increase the risk of men’s sexual coercion of their partner.

In two studies securing data from men’s self-reports and women’s partner-reports, Goetz and Shackelford (2006) found that men’s sexual coercion correlated positively with women’s past and future likelihood of engaging in sexual infidelity. They also found that men who perform more mate-retention behaviors also are more likely to perform sexually coercive behaviors against their partners, as reported by men and by men’s partners. A number of studies have documented a positive relationship between men’s sexual jealousy and men’s sexual coercion of their partners. For example, Frieze (1983) and Gage and Hutchinson (2006) found that men who sexually coerced their wives were more sexually jealous than men who did not. Previous research has found a direct positive relationship between men’s suspicions and accusations of partner infidelity and men’s sexual coercion of their partners (Starratt et al., 2008).

According to Goetz and Shackelford (2009), the domination and control hypothesis and the sperm competition hypothesis reflect different levels of analysis. The domination and control hypothesis offers a proximate explanation of partner sexual coercion, including social or cultural causes of behavior. The sperm competition hypothesis offers an ultimate explanation of partner sexual coercion, and addresses how adaptations that produce such costly behaviors could have evolved. Goetz and
Shackelford do not argue that all sexually coercive behaviors are produced by evolved mechanisms that motivate anti-cuckoldry behaviors. Instead, they attempted to explain the increased likelihood of sexual coercion in the context of risk of female infidelity. It may be that some instances of sexual coercion are the result of, for example, an antisocial man’s motivation to control, dominate, or humiliate his partner (see Goetz, Shackelford, Starratt, & McKibbin, 2008). The next section introduces individual differences in men’s perpetration of violence in intimate relationships.

**Individual Differences in Intimate Partner Violence**

Previous research has identified links between men’s partner-directed violence and men’s personality traits, including antisocial tendencies (Dutton, 1994; Dutton & Starzomski, 1993), self-centeredness (Dean & Malamuth, 1997), lack of emotional regulation (McNulty & Hellmuth, 2008), and impulsivity (Stuart, & Holtzworth-Munroe, 2005; also see White, McMullin, Swartout, Sechrist, & Gollehon, 2008, for review). However, only a few studies (e.g., Busby, Holman, & Walker, 2008; Hellmuth & McNulty, 2008; Hines & Saudino, 2008) have investigated the relationships between men’s personality traits, as assessed by the Five Factor Model (FFM), and men’s partner-directed violence. Hellmuth and McNulty (2008) note that most previous research addressing links between men’s partner-directed violence and men’s personality traits has investigated personality disorders as predictors of partner-directed violence. Hines and Saudino (2008) emphasize the importance of using the FFM to study interpersonal relationships, in general, and interpersonal conflict, in particular.

The FFM is a comprehensive descriptive organization of personality traits that is applicable to the general population and generalizeable cross-culturally (Digman, 1990;
McCrae & Costa, 1997; McCrae & John, 1992). According to the FFM, most personality traits can be categorized in terms of five broad factors: *emotional stability*, which describes the ability to cope with stress; *extraversion*, which describes positive emotionality with the axes of dominance and affiliation; *agreeableness*, which describes characteristics such as altruism and emotional support at one end of the dimension, and hostility, self-centeredness, and jealousy at the other; *conscientiousness*, which describes diligence and thoroughness; and *openness*, which describes creativity, intellect, and a need for variety (Digman, 1990; John & Srivastava, 1999; McCrae & Costa, 1987; McCare & John, 1992).

Buss (1991) investigated the links between personality factors as assessed by the FFM and conflict in marriage. He documented positive associations between husbands’ low emotional stability and low agreeableness, assessed by husbands’ self-reports and by wives’ partner-reports, and female-directed neglect and abuse. A number of other studies have found a positive relationship between low emotional stability in men and physical aggression in intimate relationships (Barnes, Greenwod, & Sommer, 1991; Busby et al., 2008; Hellmuth & McNulty, 2008; Hines & Saudino, 2008).

These findings fit well with Digman’s (1997) taxonomy of alpha-linked personality traits and with higher-order negative emotionality traits (see Kruger, Caspi, & Moffitt, 2000, for review) and their links with violence. Digman categorized the major personality factors into two higher-order factors: *alpha-linked traits*, including agreeableness, emotional stability, and conscientiousness, and *beta-linked traits*, including openness and extraversion. Men’s higher order alpha-linked traits and negative emotionality, in turn, have been identified as predictors of both men’s general violence
and partner-directed violence (Kruger, et al., 2000; Moffitt, Kruger, Caspi, & Fagan, 2000). Thus, according to the results of previous research, men’s emotional stability, agreeableness, and conscientiousness are expected to correlate with men’s partner-directed violence in intimate relationships.

**Personality and Intimate Partner Violence in Context**

Personality often affects behavior differently in different interpersonal contexts (e.g., Mischel & Shoda, 1995). Thus, it is important to consider interactions between stable features of personality and features of the interpersonal context or situational factors when investigating predictors of behavior (Buss, 1987, 2009; Mischel & Shoda, 1995). Hellmuth and McNulty (2008), for example, documented that husbands’ and wives’ emotional stability interacts with levels of chronic stress to influence the frequency with which violence is inflicted against spouses. Lower emotional stability scores predicted more frequent partner-directed violence, especially for spouses with high levels of stress. Previous studies also have found that the relationship between men’s stable personality features and performance of partner-directed violence varies with men’s substance abuse (Leonard & Blane, 1992; Stuart & Holtzworth-Munroe, 2005). Consideration of the situational factors and interpersonal context may be important for accurately identifying relationships between men’s personality and men’s partner-directed violence.

**The Context of Perceived Partner Infidelity Risk**

The adaptive problem of paternity uncertainty over human evolutionary history might have caused the evolution of male anti-cuckoldry tactics, such as non-violent and violent mate-retention behaviors, to prevent or punish female sexual infidelity (see Goetz,
Shackelford, Romero, Kaighobadi, & Miner, 2008). Thus, the risk of partner-directed violence may increase as men’s perceptions of the risk of partner infidelity increases. Previous research has indeed shown that men’s suspicion of their partner’s infidelity predicts men’s partner-directed sexual coercion (Goetz & Shackelford, 2006; Starratt, Goetz, Shackelford, & Stewart-Williams, 2008) and partner-directed violence (Kaighobadi, Starratt, Shackelford, & Popp, 2008). Thus, men’s perceptions of partner infidelity may act as a situational context in which personality affects partner-directed violence differently.

Study 2 will investigate the relationship between men’s personality traits as assessed by the FFM and the interaction of these traits with the evolutionary adaptive context of perceived partner infidelity risk to predict men’s perpetration of violence in relationships.

**Life History (LH) Strategies and Intimate Partner Violence**

LH Theory is originally an evolutionary biological theory that describes adaptive allocation of physiological and material resources among different components of fitness, including trade-offs between somatic versus reproductive efforts. Somatic effort is the investment of time, energy and resources in survival of the organism. Reproductive effort is the investment of time, energy, and resources in reproduction and survival of genes. Reproductive effort itself is anchored on one end by mating effort and on the other by parental effort. According to the LH Theory, individuals differ on the amount of energy and resources invested in mating vs. parenting efforts. The differences are explained by the stability and predictability of the developmental environment or lack thereof (Shennan, 2002).
LH Theory predicts that species living in unstable, unpredictable environments will evolve a cluster of traits (labeled “r-selected” traits), identified by high reproductive effort and low parental effort. In contrast, species living in stable and predictable environments will evolve clusters of traits (labeled “K-selected” traits), identified by low reproductive effort and high parental investment (Pianka, 1970).

LH Theory has been expanded to explain individual differences in biological and behavioral traits in humans. It provides a framework for investigating individual differences in humans as they allocate energy and resources to mating versus parenting efforts. The theory argues that unstable, unpredictable developmental environments will contribute to individual’s perceived short life expectancy. The short life expectancy motivates the individual to adopt a fast LH strategy (see Figueredo et al., 2006 for review). Previous research has linked fast LH strategy with high mating effort and low parenting effort. Fast LH strategy has been linked to risk-taking, low behavioral self-regulation, sexual promiscuity, and disregard for social rules (Figueredo et al. 2006).

Slow LH strategy, on the other hand, has been linked to monogamy, high parenting effort, high behavioral self-regulation, future orientation, and attentive regard for social rules. LH strategies therefore is hypothesized to predict individual differences in mating effort (and, conversely, parenting effort), including but not limited to partner-directed sexual coercion and violence.

Figueredo, Gladden, and Beck (2010) argued that because fast LH strategy, high mating effort men (relative to slow LH strategy, low mating effort men) are unlikely to commit to a monogamous relationship and concomitant parenting effort, their mating strategies may be more often in conflict with women’s mating strategies. This conflict
may result in negative attitudes towards the opposite sex and low relationship satisfaction. Gladden, Figueredo, and Snyder (2010) documented a link between LH strategy and general perceived mate value. The results indicated that individuals with a slow LH strategy possess a positive sense of self-worth and perceived mate value, unlike individuals with a fast LH strategy who perceive themselves to be relatively low on mate value. Furthermore, Gladden, Figueredo, Andrzejczak, Jones, and Smith-Castro (2009) reported a positive correlation between fast LH strategy and low executive functioning and subsequent impulsivity and lack of behavioral self-regulation. Thus, because fast LH strategy is linked to (1) risk-taking, impulsive behaviors, and low behavioral self-regulation, (2) perceived low mate value, and (3) increased sexual conflict, fast LH strategy may predict men’s partner-directed sexual coercion and violence.

Consistent with this hypothesis, Gladden, Sisco, and Figueredo (2008) documented a link between a single cluster of slow LH strategy traits and decreased sexual coercion in a college-student sample. Moreover, in a recent study, Figueredo and colleagues (2010) predicted a relationship between LH strategy and intimate partner violence mediated by mate value. The results indicated (1) a relationship between slow LH strategy and higher perceived mate value, and (2) a relationship between higher perceived mate value and decreased partner-directed violence. In other words, slow LH strategy is indirectly associated with decreased partner-directed violence; this relationship is mediated by men’s perceived mate value. In conclusion, LH strategy may be a reliable predictor of sexual coercion and violence in intimate relationships, providing an evolutionary framework for explaining some individual differences in the performance of these costly behaviors.
Study 3, informed by LH theories, investigates the causal chain of IPV predictors in order of: (1) developmental environment (identified by experiences with father and mother’s parental effort), (2) adopted LH strategy, (3) self-regulatory behaviors, (4) perceived partner infidelity risk, and (5) non-violent mate retention behaviors, leading to IPV.
STUDY 1

Past empirical studies documented a positive relationship between men’s perceptions of partner infidelity risk and men’s sexual coercion of partners. Men who are suspicious of partner sexual infidelity are more likely to sexually coerce their partners (Goetz & Shackelford, 2009). Men’s partner-directed sexual coercion has also been shown to correlate positively with men’s partner-directed violence. Men who are likely to sexually coerce their partners are also more likely to perpetrate violence against them. Study 1 investigated the direct link between men’s perceptions of partner infidelity risk and men’s perpetration of violence against partners. The study used frequency of men’s accusations of partner infidelity to assess men’s perceived partner infidelity risk. The first hypothesis of the study is as follow:

Hypothesis 1: Men’s accusations of female infidelity predict men’s partner-directed violence.

Mediating Role of Direct Guarding

Previous research also documents positive associations between perceived risk of female sexual infidelity and men’s mate-retention behaviors (Buss & Shackelford, 1997; Starratt, Shackelford, Goetz, & McKibbin, 2007) and between accusations of sexual infidelity and men’s mate-retention behaviors (McKibbin, Goetz, Shackelford, Schipper, Starratt, & Stewart-Williams, 2007). Buss and Shackelford (1997) hypothesized that the use of some non-violent mate-retention behaviors may portend violence in relationships.
Consistent with this hypothesis, Shackelford, Goetz, Buss, Euler, and Hoier (2005) reported that men’s use of particular non-violent mate retention tactics (e.g., emotional manipulation) was related positively to female-directed violence.

Hypothesis 1 posits a positive relationship between accusations of female sexual infidelity and partner-directed violence. Given that both female sexual infidelity and partner-directed violence are related to non-violent mate-retention behaviors, it may be that the latter significantly influences the hypothesized relationship. In the test of a second hypothesis, Study 1 investigates whether performance of certain non-violent mate-retention behaviors mediates the relationship between men’s accusations of female sexual infidelity and men’s partner-directed violence.

_Hypothesis 2:_ The relationship between accusations of female sexual infidelity and female-directed violence is mediated by non-violent mate-retention behaviors.

**Study 1-A: Men’s Self-Reports**

**Method**

**Participants.** Participants were 165 men in a committed, sexual relationship with a woman (including married and unmarried). The mean age of the participants was 26.2 years (SD = 8.8), the mean age of the participants’ partners was 25.3 years (SD = 8.4), and the mean relationship duration was 51.5 months (SD = 57.4). Participants were drawn from universities and surrounding 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, we 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 second section assessed men’s partner-directed insults using the Partner-Directed Insults Survey (PDIS; Goetz, Shackelford, Schipper, & Stewart-Williams, 2006). 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 47 insults is categorized into one of four components. The current research considered only one component of this scale, Accusations of Sexual Infidelity (Appendix A), as an assessment of men’s suspicions of their partner’s 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 were recorded using a 6-point ordered-category scale with values ranging from 0 (I have never said this insulting thing to my partner) to 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. 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 (e.g., Goetz et al., 2006).
Participants next completed the Mate Retention Inventory (MRI; Buss, 1988), which assesses the frequency of men’s use of 104 mate retention acts in the past month, with answers ranging from 0 (never) to 3 (often). The current research used only responses to the 18 acts included in the Direct Guarding category (Appendix B), because these acts represent the most direct form of mate guarding (e.g., “Called my partner at unexpected times to see who she was with,” “Refused to introduce my partner to my same sex friends,” and “Insisted that my partner stays home rather than going out”). Previous research has established the reliability, validity and utility of MRI categories as an assessment of mate-retention behaviors (e.g., Shackelford, Goetz, & Buss, 2005).

To assess female-directed violence, participants completed the Violence Assessment Index (VAI; Dobash, Dobash, Cavanagh, & Lewis, 1995; Appendix C), which assesses the performance of 26 violent acts men performed against their partners (e.g., “Pushed, grabbed or shoved partner”). Responses are recorded using a 6-point ordered-category scale anchored by 0 (never) and 5 (11 or more times). Dobash and colleagues (1995, 1996, 1998) have demonstrated the reliability, validity, and the utility of this index.

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) in a committed, sexual relationship with a woman. If these 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.
Results and Discussion

Means and standard deviations for all measures are provided in Table 1. Alpha reliabilities for the Accusations of Sexual Infidelity component of PDIS scale and the Direct Guarding category of the MRI scale were .83 and .88, respectively. The alpha reliability for VAI total scores (sum of responses to 26 items) was .76. I conducted a regression analysis to test Hypothesis 1. Consistent with the hypothesis, men’s self-reported scores on the Accusations of Female Infidelity component of the PDIS predicted men’s violence against their partners, as assessed by total scores on the VAI scale \( \beta = .16, F(1,162) = 4.45, p < .001 \).

Hypothesis 2 was tested following Baron and Kenny’s (1986) guidelines for mediation. First, tests of Hypothesis 1 indicated that men’s accusations of their partner’s sexual infidelity predicted female-directed violence. Second, the results of a regression analysis indicated that men’s accusations of their partner’s sexual infidelity predicted men’s direct guarding behaviors \( \beta = .30, F(1, 162) = 15.55, p < .001 \). Third, accusations of sexual infidelity and performance of direct guarding behaviors were entered together into a regression predicting female-directed violence. The model was significant, \( F(2, 161) = 9.47, R^2 = .11, p < .001 \). Direct guarding behaviors uniquely predicted variance in female-directed violence \( \beta = .29, t = 3.76 \ p < .001 \). Finally, I examined whether the relationship between accusations of sexual infidelity and female-directed violence remained after controlling for performance of direct guarding behaviors. The relationship between accusations of sexual infidelity and scores on the VAI was not significant after controlling for performance of direct guarding behaviors \( F\text{-change}(1,161) = .97, R^2\text{-change} = .005, p = .33 \). The \( \beta \) coefficient in the initial regression between accusations of
sexual infidelity and VAI scores was reduced from .16 to .08 after controlling for the mediator (see Figure 1). Table 2 provides a summary of the mediation analyses. The Sobel (1982) test verified that performance of direct guarding behaviors was a significant mediator of the relationship between accusations of sexual infidelity and female-directed violence ($z = 2.71, p < .01$).

**Study 1-B: Women’s Partner-Reports**

Men’s self-reports of their partner-directed insults and violence 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 violence or they may underreport the most egregious insults or the most severe violence (e.g., Dobash et al., 1998). Women’s reports of their partner’s insults and violence against them may reflect more accurately the incidence of such behaviors. However, men might be in a position to provide more accurate reports of their mate-retention behaviors as women might not be aware of some of men’s mate-retention behaviors (e.g., “Read her personal mail”). Using an independent sample of women in a committed, sexual relationship, Study 1-b secured women’s reports of their partner’s accusations of infidelity, direct guarding behaviors, and female-directed violence. These independent reports offered an additional test of the hypotheses tested in Study 1-a.

**Method**

**Participants.** Participants were 306 women in a committed, sexual relationship with a man. The mean age of the participants was 26.0 years ($SD = 7.8$), the mean age of the participants’ partners was 29.3 years ($SD = 9.5$), and the mean relationship duration was
60.6 months ($SD = 65.0$). Participants were obtained in the same manner as in Study 1. None of the women in Study 1-b were partners of the men in Study 1-a.

**Materials.** The materials for Study 1-b paralleled the materials for Study 1-a. Participants reported their partner’s use of insults (accusations of sexual infidelity), direct guarding behaviors, and violence using partner-report versions of the PDIS, MRI and VAI.

**Procedures.** 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 1-a.

**Results and Discussion**

Means and standard deviations for all measures are provided in Table 1. Alpha reliabilities for the Accusations of Sexual Infidelity component of PDIS scale and the Direct Guarding category of the MRI scale were .87 and .89, respectively. The alpha reliability for VAI total scores was .76. We conducted a regression analysis to test Hypothesis 1. Consistent with the hypothesis, women’s reports of their partner’s scores on the Accusations of Female Infidelity component of the PDIS predicted female-directed violence, as assessed by total scores on the VAI scale [$\beta = .33, F(1, 299) = 37.45, p < .001$].

Paralleling Study 1-a, Baron and Kenny’s (1986) guidelines for testing mediation were used to test Hypothesis 2. First, tests of Hypothesis 1 indicated that women’s partner-reports of accusations of infidelity predicted female-directed violence. Second, the results of a regression analysis indicated that men’s accusations of female infidelity predicted men’s direct guarding [$\beta = .25, F(1, 300) = 20.03, p < .001$]. Third, women’s
reports of their partner’s accusations of infidelity and direct guarding behaviors were entered together into a regression predicting female-directed violence. The model was significant \( F(2, 298) = 26.47, R^2 = .15, p < .001 \). Direct guarding behaviors uniquely predicted variance in female-directed violence \( (\beta = .21, t = 3.73, p < .001) \). Finally, we examined whether the relationship between accusations of sexual infidelity and female-directed violence remained after controlling for women’s reports of their partner’s direct guarding behaviors. The relationship between accusations of sexual infidelity and VAI persisted for women’s reports but was reduced after controlling for the performance of direct guarding behaviors \( F\text{-change} = 26.23, R^2\text{-change} = .08, p < .001 \). The \( \beta \) coefficient in the initial regression between accusations of infidelity and VAI was reduced from .33 to .28 after controlling for the mediator (see Figure 2). Table 2 provides a summary of the mediation analyses. The Sobel test verified that direct guarding is a partial but significant mediator of the relationship between women’s reports of their partner’s accusations of sexual infidelity and female-directed violence \( (z = 2.85, p < .01) \).

**Comparison of Men’s Self-Reports and Women’s Partner-Reports**

We investigated whether the target relationships differed when using men’s self-reports and women’s partner-reports. As indicated in Table 1, there was no difference between the means for men’s self-reports and women’s partner-reports for the target variables. Furthermore, we tested the difference between regression coefficients for the two groups. Paternoster, Brame, Mazerolle and Piquero (1998) recommended a \( z \) formula

\[
\frac{b_1 - b_2}{\sqrt{SEb_1^2 - SEb_2^2}}
\]

\( (b_1 - b_2) \) to test the difference between two regression coefficients across two independent groups. The regression coefficients did not differ from Study 1-a to Study 1-
b for accusations of sexual infidelity predicting direct guarding behaviors ($z = .13, p > .05$), accusations of sexual infidelity predicting female-directed violence ($z = 1.45, p > .05$), and direct guarding behaviors predicting violence ($z = 1.0, p > .05$). However, when comparing the coefficients for the mediation between the two groups, women’s partner-reports of accusations of sexual infidelity accounted for more variance in men’s partner-directed violence than men’s self-reports after controlling for direct guarding behaviors ($b_{\text{women}} = .75, b_{\text{men}} = .17, z = 1.98$).

**Discussion**

The results using men’s self-reports (Study 1-a) and women’s partner-reports (Study 1-b) replicate previous findings on the relationships between suspicions of female sexual infidelity, men’s non-violent mate-retention behaviors, and men’s partner-directed violence. Specifically, men’s accusations of their partner’s sexual infidelity predict their direct guarding behaviors and men’s direct guarding behaviors predict their partner-directed violence.

The results from both studies also support the two central hypotheses. Consistent with Hypothesis 1, the results indicate a positive relationship between accusations of female sexual infidelity and female-directed violence. Thus, accusations of female sexual infidelity not only predict men’s non-violent direct guarding mate-retention behaviors, but also men’s partner-directed violence. Consistent with Hypothesis 2, the results from Study 1-a indicate that men’s self-reports of their direct guarding behaviors mediate the relationship between their accusations of their partner’s sexual infidelity and their partner-directed violence. The results of Study 1-b indicate that women’s partner-reports
of men’s direct guarding behaviors partially mediate the relationship between men’s accusations of women’s infidelity and men’s partner-directed violence.

In attempting to explain why men’s mate retention might mediate the relationship between female sexual infidelity and female-directed violence, I speculate that men might perform non-violent and violent mate-retention behaviors in a temporal hierarchical fashion. Less severe, less costly behaviors might be deployed first, followed by more severe behaviors such that the hierarchy of events leading to female-directed violence is initiated with men’s suspicions of infidelity followed by non-violent mate-retention behaviors and ending in acts of violence. It is also plausible that an unmeasured personality variable or a certain sociosexual attitude might be accounting for the variance in both men’s direct guarding behaviors and partner-directed violence.

A comparison of the results of Studies 1-a and 1-b indicates that men’s self-reports of direct guarding behaviors have a stronger mediating effect than women’s partner-reports of direct guarding behaviors. We offer two speculations for this sex difference. First, women may be more attuned to the link between men’s accusations of infidelity and their partner-directed violence because this violence can be very costly to women, sometimes even deadly (Daly & Wilson, 1988). Furthermore, women may be unaware of men’s performance of many direct guarding behaviors, such as, “Had my friends check up on her” or “Snooped through her personal belongings.” Men are reporting on their actual mate-retention behaviors whereas women are reporting only those behaviors known to them, with the result that women’s reports might not mediate as strongly the relationship between accusations of infidelity and female-directed violence. Second, because the men in Study 1-a were not partnered to the women in
Study 1-b, it is possible that these samples might have had different experiences in the context of their intimate relationships.

Not all men who are suspicious of partner infidelity inflict physical violence. A limitation of the current research is the lack of consideration for individual differences. Study 2 and 3 investigated men’s individual differences in interaction with perceptions of partner infidelity risk to predict men’s partner-directed violence.
STUDY 2

The current research is guided broadly by a person-situation interaction approach to female-directed violence in intimate relationships. This approach is informed by research on the personality characteristics of men who inflict violence on their intimate partners and also considers the situational contexts in which intimate partner violence occurs. Previous research has mostly identified personality disorders as predictors of IPV and less attention has been given to the Five Factor Model (FFM). Study 2 first investigated the relationship between men’s emotional stability, agreeableness, and conscientiousness, and men’s perpetration of violence in intimate relationships. Then, given the importance of situational contexts in determining the relationship between personality and behavior, and previous findings supporting perceived infidelity risk as a situational context in which partner-directed violence is more likely, Study 2 generated three hypotheses:

Hypothesis 1: Men’s emotional stability interacts with men’s perceptions of partner infidelity to predict female-directed violence, such that low emotional stability will predict violence in the context of high risk of partner infidelity.

Hypothesis 2: Men’s agreeableness interacts with men’s perceptions of partner infidelity to predict female-directed violence, such that low agreeableness will predict violence in the context of high risk of partner infidelity.
Hypothesis 3: Men’s conscientiousness interacts with men’s perceptions of partner infidelity to predict female-directed violence, such that low emotional stability will predict violence in the context of high risk of partner infidelity.

Method

Participants. Four hundred sixty-seven men, each in a self-defined committed, heterosexual relationship, participated in this study. Participants were drawn from universities and surrounding communities of southeastern Unites States. The mean age of the participants was 24.2 years ($SD = 7.9$), ranging between 18 and 63. The mean age of the participants’ partners was 23.0 years ($SD = 7.3$), ranging between 14 and 59. The mean relationship length was 37.1 months ($SD = 59.7$), ranging between 0.5 and 475 months. About half the participants drawn from universities received nominal extra credit toward one of several social science courses in exchange for their participation. The remaining half of participants drawn from universities received credit toward a required research participation component of an introductory psychology course. Researchers solicited participants from these courses at the beginning of a class session, noting only that the research was a ‘‘study on romantic relationships.’’ Participants drawn from the surrounding community were recruited by word of mouth and via flyers posted in public locations. These flyers stated only that volunteers were needed for a ‘‘study on romantic relationships.’’ The researchers’ contact information was provided on the flyers. I estimate that 20% of participants in both studies were nonstudents drawn from the community. We did not code for method of data collection, so we are unable to include this as a variable in the statistical analyses.
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. Participants then completed a measure assessing their own standing along the five major factors of personality (Botwin, Buss, & Shackelford, 1997). This measure includes 40 bipolar adjective scales, eight for each five personality factors. For each bipolar scale, the participant circled a number between 1 and 7 that describes himself “generally.” The five personality factors were scored by averaging scores on the relevant scales for each factor. The alpha reliabilities for the three personality factors included in this study, emotional stability, agreeableness, and conscientiousness, were .52, .65, and 64, respectively.

To measure perceptions of risk of partner infidelity, we asked participants to answer four questions regarding suspicions of their partner’s past and future likelihood of sexual and emotional infidelity (e.g., “As far as you know, has your partner had sexual intercourse with someone other than you since you have been involved in a relationship together?”). The responses were recorded on a 10-point scale, anchored by 0 (Definitely No) to 9 (Definitely Yes). Perception of partner infidelity risk was computed by summing the responses to all four questions. The alpha reliability of the perceived risk of infidelity measure for this sample was .71.

Dobash, Dobash, Cavanagh, and Lewis (1995, 1996) developed two indices to assess the occurrence and consequences of violence in relationships. The Violence Assessment Index (VAI; Dobash et al., 1995) measures specific methods of assault, objects used in assaults, and parts of the body to which assaults are directed. The types of violence assessed range from pushing to choking. Because the effects of violence can
range from minor wounds (e.g., a scratch) to more severe damage (e.g., an internal injury), Dobash et al. (1995) developed the Injury Assessment Index (IAI) to measure the physical consequences of violence against partners. The IAI is comprehensive in that it measures the specific injury (e.g., bruise, cut) and the location of the injury on the body (e.g., face, limb).

The participants completed both the VAI, which assesses how often men performed 26 violent acts against their partners, and the IAI, which assess how often their partners sustained each of 20 injuries as a result of their violence against their partners. For each index, responses were recorded using a 6-point Likert type scale anchored by 0 (never) and 5 (11 or more times; Dobash et al., 1995, 1996). Research by Dobash and colleagues (1995, 1996, 1998) has demonstrated the reliability, validity and utility of these indices.

**Procedures.** The prospective participant had to be (1) male, (2) at least 18 years of age, and (3) in a committed, sexual relationship with a woman. If these 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 and the consent form in separate envelopes and then place the sealed envelopes in two boxes—one for surveys, one for consent forms. The participants completed the surveys in a classroom setting, with some distance between participants to provide privacy of responses.

**Results**

I constructed three factors of the FFM by summing the responses for the relevant factor; agreeableness, conscientiousness, and emotional stability. We constructed a
composite risk of partner infidelity score by averaging responses to the four partner infidelity items. I constructed a composite variable for partner-directed violence, Overall Violence Index (OVI, α = 0.90; Shackelford et al., 2005), by standardizing scores on the VAI and IAI and then averaging these standardized scores into a composite OVI. Table 3 includes the means, standard deviations, and correlations between the variables.

Here we report the results of three separate moderation analyses and subsequent simple slope analyses to test the three hypotheses of this study. First, we conducted three separate hierarchical regressions to test the interaction between each personality trait and the risk of partner infidelity. Then, for each significant interaction, we tested the relationship between each personality trait and partner-directed violence at different levels of risk of infidelity. To test the three interactions, we followed the steps recommended by Aiken and West (1991) to test the interaction between two continuous variables (each personality factor and risk of partner infidelity) to predict the variance in a dependent variable (partner-directed violence): (1) I centered each continuous predictor variable, and (2) we produced three separate interaction terms (emotional stability X infidelity risk; agreeableness X infidelity risk; conscientiousness X infidelity risk). Three hierarchical regressions were used to test the three hypotheses. Table 4 includes a summary of the significant moderations.

To test the interaction predicted by hypothesis 1, I first entered the centered emotional stability and risk of infidelity variables into the regression analysis, and then we entered the interaction term for these two variables. The results revealed an interaction between emotional stability and infidelity risk predicting partner-directed violence ($t = 2.32, p < .05$). The results also showed a main effect of emotional stability
(b= -0.19, t = -4.03, p < .00) and a main effect of risk of infidelity (b = 0.02, t = 2.38, p < .05).

To test the interaction predicted by hypothesis 2, we first entered the centered agreeableness and risk of infidelity variables into the regression analysis, and then we entered the interaction term for these two variables. The results revealed an interaction between agreeableness and infidelity risk predicting partner-directed violence (t = 2.73, p < .01). The results also showed a main effect of agreeableness (b= -0.15, t = -3.44, p = .001) and a main effect of risk of infidelity (b = 0.01, t = 2.11, p < .05).

To test the interaction predicted by hypothesis 3, we first entered the centered conscientiousness and risk of infidelity variables into the regression analysis, and then we entered the interaction term for these two variables. The results revealed an interaction between conscientiousness and infidelity risk predicting partner-directed violence (t = -2.19, p < .05). The results also showed a main effect of conscientiousness (b= -0.15, t = -3.16, p < .01).

**Simple slope analyses.** To investigate the relationship between each personality factor and partner-directed violence at different levels of infidelity risk, we conducted separate simple slope analyses for the significant moderations. To compute low and high levels of infidelity risk, we added one SD and subtracted one SD from the centered infidelity risk (Aiken & West, 1991) and then created new interaction terms with each personality factor and each level of infidelity risk. We conducted nine separate multiple regressions (three for each significant moderation at different levels of infidelity risk) to investigate the simple slopes.
Three separate multiple regressions were conducted to test the relationship between emotional stability and partner-directed violence at different levels of infidelity risk (low, medium, and high). The results showed: (1) A negative relationship between men’s emotional stability and frequency of partner-directed violence at low levels of infidelity risk ($b = -0.30, t = -4.80, p < .001$); (2) a negative relationship between men’s emotional stability and frequency of partner-directed violence at medium levels of infidelity risk ($b = -0.19, t = -4.03, p < .001$); (3) but no relationship between men’s emotional stability and frequency of partner-directed violence at high levels of infidelity risk (see Figure 3).

We conducted three separate multiple regressions to test the relationship between agreeableness and partner-directed violence at different levels of infidelity risk. The results showed: (1) A negative relationship between men’s agreeableness and frequency of partner-directed violence at low levels of infidelity risk ($b = -0.27, t = -4.41, p < .001$); (2) a negative relationship between men’s agreeableness and frequency of partner-directed violence at medium levels of infidelity risk ($b = -0.15, t = -3.44, p = .001$); (3) but no relationship between men’s agreeableness and frequency of partner-directed violence at high levels of infidelity risk (see Figure 4).

Finally, we conducted three separate multiple regressions to test the relationship between conscientiousness and partner-directed violence at different levels of infidelity risk. The results showed: (1) A negative relationship between men’s conscientiousness and frequency of partner-directed violence at high levels of infidelity risk ($b = -0.25, t = -3.43, p = .001$); (2) a negative relationship between men’s conscientiousness and frequency of partner-directed violence at medium levels of infidelity risk ($b = -0.15, t = -
3.16, \( p < .01 \)); (3) but no relationship between men’s conscientiousness and frequency of partner-directed violence at low levels of infidelity risk (see Figure 5).

**Discussion**

Study 2 investigated the relationships between men’s personality traits and perpetration of partner-directed violence in the context of perceived partner infidelity risk. Study 2 tested three hypotheses corresponding to interactions between three personality factors of the Five Factor Model (FFM) and perceived risk of partner infidelity. Hypotheses 1 and 2 were partially supported, such that the results indicate a significant interaction between emotional stability, agreeableness, and perceived infidelity risk in predicting partner-directed violence, but the direction of the simple slopes were not in the hypothesized directions. The results indicate that men’s low emotional stability and low agreeableness predict partner-directed violence only in the context of low-perceived infidelity risk. The results support Hypothesis 3, indicating that conscientiousness interacts with perceived infidelity risk to predict partner-directed violence such that men’s low conscientiousness predicts violence only in the context of high risk of partner infidelity.

The main effects identified in the moderation analyses are consistent with the results of previous research on personality predictors of men’s partner-directed violence: (1) men who score lower on emotional stability, agreeableness, and conscientiousness are more likely to inflict violence against their partners, and (2) men who are suspicious of their partner’s infidelities are more likely to inflict violence against them.

The results of the simple slope analyses indicate that men’s emotional stability and agreeableness predict violent behavior only when the perceived risk of partner
infidelity is low. Emotional stability and agreeableness do not predict men’s violent behavior when the perceived risk of infidelity is high. In other words, when the perceived risk of female infidelity is low, men high on emotional stability or agreeableness are least likely to be violent, and men low on these factors are most likely to be violent (see Figures 3 and 4). I speculate that when the perceived risk of partner infidelity is low, men who are impulsive, distrustful, and noncompliant—characteristics associated with low emotional stability and low agreeableness (Widiger et al., 2002)—are more likely to use partner-directed violence; the findings are consistent with previous research and with the main effects of emotional stability and agreeableness. However, the perceived risk of infidelity appears to have a mitigating effect on partner-directed violence in men with these personality traits. One possible explanation for this finding is that men who are cognizant of their low emotional stability and low agreeableness recognize that by inflicting violence against their partners, they may motivate a partner who is likely to be unfaithful to commit infidelity or to defect from the relationship altogether (e.g., Buss, 2003; Miner, Shackelford, & Starratt, 2009). Men low on these personality factors do not engage in violence when the risk of their partner’s infidelity and relationship defection is high. Thus, it may be that men’s emotional instability or low agreeableness predicts partner-directed violence only when they are not suspicious of partner infidelity or at initial stages of suspicion (i.e., when perceived infidelity risk is low or medium).

Men’s conscientiousness predicts partner-directed violence when the risk of partner infidelity is high. When the risk of partner infidelity is low, conscientiousness no longer predicts violent behavior. In other words, when the perceived risk of female infidelity is high, high conscientious men are least likely to be violent and low
conscientious men are most likely to be violent. We speculate that men who are highly conscientious and who are suspicious of partner infidelity are less likely to engage in violent behavior because they may assess that violence towards a partner who is likely to be unfaithful may motivate her to defect the relationship (e.g., Buss, 2003; Miner, Shackelford, & Starratt, 2009). Low conscientious men, in contrast, are low on self-discipline and tend not to deliberate before acting (Widiger et al., 2002) and therefore may not anticipate the consequences of violence towards their partners. Thus, they engage in violent behavior when the perceived risk of partner infidelity is high.

Individual difference predictors of men’s partner-directed violence are not limited to men’s personality or suspicions of female infidelity. Study 3 expands on the findings from Study 2 by building a causal cascade model that includes in order: Men’s experiences with father and mother’s parental effort, Life History strategies, behavioral self-regulation, perceptions of partner infidelity risk to predict likelihood of men’s perpetration of violence in intimate relationships.
STUDY 3

Study 3 compliments Studies 1 and 2 in three ways. First, it investigates additional individual difference variables in men’s partner-directed violence, including men’s childhood experiences with parental effort, life history strategies, and behavioral self-regulation. Second, the major variables of interest are framed as constructs that are assessed by multiple measures. These measures highly correlate with the factor built to represent that construct. For example, the partner-directed violence factor includes measures of physical violence, subsequent injuries, and sexually coercive behaviors. The perceived partner infidelity risk also includes multiple measures that form a reliable common factor. Finally, Studies 1 and 2 are correlational studies and are limited in terms of causal inferences. Study 3 is structured as a cascade model following a hypothesized causal order as follows.

**Experiences with Parental Effort in Childhood Predicts Life History Strategy in Adulthood**

Life history (LH) strategy constitutes a set of biological, psychological, and behavioral traits predicted by individual’s resource allocation decisions throughout development. These interdependent resource-allocation decisions are hypothesized to vary through a combination of genetic variation and phenotypic plasticity in response to variations in the developmental environment, including social conditions (see Ellis, Figueredo, Brumbach, & Schlomer, 2009 for review). For example, quality of parental
investments in rats, including licking and grooming of the pups, affect pup’s onset of puberty and reproductive behavior (Cameron et al., 2005).

Experiences with parental effort as a child may be a proximate cue to environmental stability, predictability or lack-thereof (Ellis et al., 2009). Thus, the amount of parental effort invested by the child’s parents may affect life history decisions as an adult (Sotomayor-Peterson, Cabeza De Baca, Figueredo, & Smith Castro, 2011). The first step of the cascade model investigates the relationship between early experiences with parental effort and life history strategies, such that greater combined parental effort may predict slower LHS.

**LH Strategy may predict Self-Regulation**

One important component of LHS is executive functioning in terms of emotional and behavioral self-regulation. In unstable, unpredictable environments, the lack of ability to act immediately, without deliberation, may be motivated by evolved psychological mechanisms. For example, in a dangerous situation, it may be disadvantageous to engage in deliberate thought-process, and advantageous to act on impulse. However, in stable, predictable environments, where the slow LHS evolve, engaging in deliberate thought process and subsequent appropriate social behavior is essential to survival and reproduction. Slow LH individuals depend on their social networks and relationships within those networks; thus, it is adaptive in such social contexts to engage in deliberate thought process, and behavioral self-regulation. Thus, it is hypothesized that enhanced executive functioning or behavioral self-regulation is a fitness trade-off, because it can be costly in some environments and beneficial in others (Figueredo, Andrzejczak, Jones, Smith-Castro, & Montero, 2011).
Wenner, Figueredo, Rushton, and Jacobs (2010) documented in a model that slow LH predicts executive functions; executive functions inhibit Psychopathic attitudes, and Psychopathic attitudes predict engagement in socially deviant behaviors (see Figueredo et al., 2010).

Therefore, the second step of the cascade model hypothesizes that LHS will predict behavioral self-regulation, such that men with higher score on LHS (i.e. slow LHS), will have enhanced self-regulation.

**Self-Regulation may Predict Perceptions of Partner Infidelity Risk**

Malamuth (1998) suggests two sexual strategies specifically applied to males, (1) the convergent interest sexual strategy and (2) the divergent interest sexual strategy. According to Malamuth (1998), both strategies are predicted by LHS, such that slow LHS is positively correlated with a convergent interest, mutualistic sexual strategy, and fast LHS is positively correlated with a divergent interest, antagonistic sexual strategy.

Figueroedo et al. (2011) suggest that slow LHS through enhanced executive function and self-regulation functions as a *protective factor* against antagonistic sexual and social thoughts and behaviors, such that, for example, slow LHS individuals are less likely to engage in prejudicial thinking. Thus, the third step of this cascade model investigates the relationship between men’s self-regulation and perceptions of partner infidelity. In other words, I expect to find that faster LHS men may be more likely entertain antagonistic thoughts depicting partner’s unfaithfulness because of lack of emotional control and behavioral self-regulation. I predict that slower LHS men may possess the ability to suppress antagonistic thoughts such as likelihood of partner infidelity.
Perceptions of Partner Infidelity Risk may Predict Frequency of Mate Retention Behaviors

Step four of the cascade model investigates the relationship between men’s perceptions of partner infidelity risk and men’s mate-retention behaviors, such that men who perceive higher likelihood of partner infidelity may engage in more frequent mate-retention behaviors. I expect to find support for previous studies (Buss & Shackelford, 1997; Starratt et al., 2007) as well as Study 1 (Kaighobadi et al., 2008).

Frequency of Mate Retention Behaviors may Predict IPV

Finally, in support of previous studies (Shackelford et al., 2005) and Study 1 (Kaighobadi et al., 2008), the last step of the cascade model predicts that the frequency of men’s mate retention behaviors may predict the frequency of men’s partner-directed violence.

What is a Cascade Model?

The cascade model is a series of hierarchical multiple regressions analyzed sequentially according to a hypothesized casual order. This method “controls statistically for any indirect effects of the predictors through the causally prior criterion variables” (Sotomayor-Peterson et al., 2011). Because of the hypothesized causal order, each hierarchically prior criterion variable will be entered first as a predictor in the next multiple regression. Sotomayor-Peterson et al. (2011) further explain:

“Thus, each successive criterion variable is predicted from an initial predictor variable, each time entering the immediately preceding criterion variable hierarchically as the first predictor, then entering all the ordered predictors from the previous regression equation. Thus, each successive regression enters all of
the preceding criterion variables in reverse causal order, to statistically control for any indirect effects that might be transmitted through them. Within this analytical scheme, the estimated effect of each predictor is limited to its direct effect on each of the successive criterion variables. The general format for this system of multiple regressions is therefore as follows:

\[
Y_4 = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3
\]

\[
Y_5 = \beta_4 Y_4 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3
\]

\[
Y_6 = \beta_5 Y_5 + \beta_4 Y_4 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3
\]

In the current study, the order of multiple hierarchical regressions is as follows:

(1) Parental effort predicts LHS (criterion variable 1), (2) parental effort and LHS together (with LHS entered first) predict self-regulation (criterion variable 2), (3) parental effort, LHS, and self-regulation together (with self-regulation entered first) predict perceptions of partner infidelity risk (criterion variable 3), (4) parental effort, LHS, self-regulation, and perceptions of partner infidelity together (with perceptions of partner infidelity entered first) predict mate-retention behaviors (criterion variable 4), and (5) parental effort, LHS, self-regulation, perceptions of partner infidelity, and mate retention behaviors together (with mate retention behaviors entered first) predict IPV (final criterion variable).

Method

Participants. One hundred fourteen men, each in a self-defined heterosexual relationship, participated in this study. Participants were drawn from psychology courses and the subject pool of the Department of Psychology at Florida Atlantic University. The
mean age of the participants was 22.8 years ($SD = 6.5$), ranging between 18 and 55. The mean age of the participants’ partner was 22.1 years ($SD = 6.0$), ranging between 17 and 51. Because of a problem in the framing of the question measuring relationship length, I am unable to report an accurate estimate of the mean of the relationship length.

Participants were offered extra course credit or subject-pool credit upon completion of the study.

**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 rest of the survey included measures of the main variables of interest.

*Father and Mother’s Parental Effort Scales* (Cabeza de Baca, Figueredo, & Ellis, 2011; Appendix D). These scales measure relative frequency of father’s and mother’s engagement in caregiving acts across different domains. The tasks vary based on frequency of performance. Some tasks are performed more frequently (e.g. “Encouraging us to do our homework,” responses ranging from daily to once weekly). Some acts are less frequently performed (e.g. “Playing sports with us,” responses ranging from five times a week to once a month). Some parental tasks acts are performed only once in a lifetime (e.g. “Teaching us about race and prejudice,” responses are Yes or No). The frequency reports for all tasks were aggregated into scores for the total parental effort, separately for each parent.

*Mini-K Short Form of the Arizona Life History Battery* (Figueredo et al., 2006; Appendix E). This measure was used to assess slow LH strategy. The measure includes
20 cognitive and behavioral items on a Likert-scale (e.g. “I often make plans in advance”). Responses range from -3 (Disagree Strongly) to +3 (Agree Strongly).

*High-K Strategy Scale* (HKSS; Giosan, 2006; Appendix F). This measure also assesses the High-K LH strategies, including 26 items on a Likert-scale (e.g. “I live in a comfortable and secure home.”). Responses ranging between -2 (Strongly Disagree) and +2 (Strongly Agree).

*Rand-36 Health Survey* (Hayes, Sherbourne, & Mazel, 1993; Appendix G). This measure was used to assess general physical and mental health. It includes 36 items measuring eight health parameters: physical functioning, bodily pain, role limitations due to physical health problems, role limitations due to personal or emotional problems, general mental health, social functioning, energy/fatigue, and general health perceptions.

*Ten Item Personality Inventory* (TIPI, Gosling, Rentfrow, & Swann, 2003; Appendix H). The TIPI is a 10-item measure of the Five-Factor Model of personality dimensions. Each item includes two personality adjectives (e.g. “Extraverted, enthusiastic”); there are two items per personality factor. The participant responds on Likert-scale ranging from -3 (Disagree Strongly) to +3 (Agree Strongly).

*Multidimensional Socio-Sexual Orientation Inventory* (MSOI; James-Jackson & Kirkpatrick, 2007). This measure includes two dimensions, preference for the short-term and for the long-term sexual relationships. In the current study, the short-term sexual relationship dimension was revised to assess perceptions of partner preferences for short-term sexual relationships (Appendix I). This dimension includes 10 items (e.g. “My partner believes in taking sexual opportunities where she finds them.”). The responses were made on a Likert-scale, ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).
Perceived Partner Infidelity Risk was also measured by using the four questions parallel to those used in Study 2 (Kaighobadi et al., 2009). The four questions assess the likelihood of partner’s past, future, emotional, and sexual infidelity.

Intentions Towards Infidelity Scale (ITIS; Jones, Olderbak, & Figueredo, in press). This scale also measures intentions towards infidelity. In the current study, the original scale was revised in two ways (1) to separate between intentions of emotional and sexual infidelity, and (2) to measure both self-reports of intentions and perceived partner-reports of intentions (Appendix J). The current study used 13 items of the revised scale, measuring perceptions of partner intentions towards emotional and sexual infidelity (e.g. “How likely is your partner to lie about being emotionally unfaithful?”), with responses ranging between -3 (Not at all likely) to 3 (Extremely likely).

The Behavioral Regulation Scales of the Behavior Rating Inventory of Executive Function – Adult version (BRIEF-A; Gioia, Isquith, Retzlaff, & Epsy, 2002; Appendix K). This 30-item scale was used to measure executive functions or self-regulation. The scale measures Inhibition (e.g. “I tap my fingers or bounce my legs), Set Shifting (e.g. “I have trouble changing from one activity or task to another), and Emotional Control (e.g. “I overact emotionally”). The responses range from 0 (Never) to 6 (Almost always). Gioia e al. (2002) used confirmatory factor analysis to test the validity of BRIEF-A against observed data collected from four theoretical models of executive function. The authors documented that BRIEF-A measure of executive function is consistent with Barkley’s (1997) theoretical model of executive function, as it includes aspects of behavioral regulation, emotional control and metacognition. Furthermore, they argue that the measure has good ecological validity because this scale captures “the integrated,
multidimensional, relativistic nature of the executive system that often is demanded in real world situations” (Gioia et al., 2002, p. 254).

*Mate Retention Inventory- Short Form* (MRI-SF; Buss, Shackelford, & McKibbin, 2008; Appendix L). This short scale, including 38 items, is a short form of the MRI used in study 1 to measure men’s frequency of engagement in mate retention behaviors. The short form also consists of five categories parallel to the long form.

*Violence Assessment Index and Injury Assessment Index* (VAI and IAI; Dobash et al., 1995, 1996; Appendix C) was used parallel to Studies 1 and 2 to measure frequency of physical violence in intimate relationships and frequency of injuries sustained by the victim.

*Sexual Coercion in Intimate Relationships Scale* (SCIRS; Shackelford & Goetz, 2004; Appendix M) includes 34 items and was also used to measure frequency of men’s use of sexual coercion in current relationships. 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”). Responses are recorded on a six-point Likert-Scale ranging from 0 (Act did not occur in the past six months) to 5 (act occurred 11 or more times in the past six months).

**Procedures.** The data for Study 3 were collected using an online survey. Participants were provided with a link to the online survey and a subject number. The subject
numbers were not in any way linked to the participant’s identification. After consenting to participate, they were directed to the first questionnaire. The participants were allowed to skip any question or withdraw from the study at any point. But they were eligible to receive credit only if they completed the survey to the end.

If the questionnaire measured attitudes and behaviors in the current intimate relationship, the participant was instructed to think of the past six months or within the portion of time that he has been in a relationship with his primary partner.

It took on average about one hour to complete the survey. The Institutional Review Board at Florida Atlantic University approved the materials and procedures.

Results

The Measurement Model. The measurement models were built to include multiple measures per factor (main variable of interest), before building and testing the cascade model including those factors. SAS 9.1.3 (SAS Institute, 2005) was used to construct all models. The composite scores per factor were estimated by computing: (1) the means of standardized scores for all items on each subscale, (2) the means of the standardized scores for all subscales on each scale, (3) the means of standardized scores for all scales on each factor (see for example, Sotomayo-Peterson et al., 2011). The Cronbach’s alphas and the part-whole correlations of the scales with each factor were also computed.

The factors (main variables of interest) were theoretically specified and constructed. The first factor, Parental Effort (PE Factor), included the Father and Mother’s Parental Effort Scales. The second factor, the LH Factor, included the Mini-K, the HKSS, the Rand-36 Health Survey, and the TIPI. The third factor, Executive Function (EF Factor) included the BRIEF-A. The fourth factor, Perceptions of Partner Infidelity
Risk (PI Factor), included the 4-item Perceptions of Partner Infidelity Risk, the MSOI-Partner, and the ITIS-Partner. The fifth factor, the Mate Retention (MR Factor), only included the MRI-Short Form. The sixth factor, the IPV Factor, included, the VAI, IAI, and SCIRS. Mean scores and the part-whole correlations for each factor to its theoretically-specified indicators (scales) and Cronbach alpha’s for each scale are shown in Table 5.

The Structural Model. The structural model included a pattern of hierarchical multiple regressions in form of a cascade model:

(1) Higher levels of Parental Effort predicted higher levels of LH strategy (slower LH strategy), $\beta = 0.25$, $F(1, 100) = 6.39$, $p < .05$. (2) Higher levels of LH Strategy predicted higher enhanced executive functions and higher levels of self-regulation (EF Factor) $\beta = 0.27$, $F(1, 99) = 4.78$, $p < .05$. After LH Factor was entered into the equation, the Parental Effort Factor significantly and negatively predicted the new criterion variable, executive function, $\beta = -0.22$, $F(1, 99) = 5.22$, $p < .05$. (3) Higher levels of executive function predicted lower levels of Perceived Partner Infidelity Risk, $\beta = -0.26$, $F(1, 98) = 12.04$, $p < .001$. After entering the EF Factor into the equation, the PE Factor and the LH Factor no longer predicted Perceived Partner Infidelity Risk. (4) Higher levels of Perceived Partner Infidelity predicted more frequent engagement in mate-retention behaviors, $\beta = 0.25$, $F(1, 97) = 11.92$, $p < .001$. Even after entering the Perceived Partner Infidelity Factor, the Executive Function and the LH Factors predicted frequency of mate retention behaviors. The Executive Function predicted mate-retention behaviors negatively, $\beta = -0.29$, $F(1, 97) = 8.00$, $p < .01$. The LH Factor predicted mate-retention behaviors positively, $\beta = 0.20$, $F(1, 97) = 5.57$, $p < .05$. (5) More frequent mate-retention behaviors predicted men’s engagement in more frequent IPV, $\beta = 0.25$, $F(1, 96) = 23.38$, $p < .0001$. 

51
After entering the MR Factor, the LH, the Executive Function, and the Perceived Partner Infidelity Risk Factors, all predicted IPV. Higher levels of LH predicts less frequent engagement in IPV, $\beta = -.22, F(1, 96) = 3.97, p < .05$. Higher levels of executive function also predicted less frequent engagement in IPV, $\beta = -.21, F(1, 96) = 6.18, p < .01$. Higher levels of Partner Infidelity Risk predicted more frequent engagement in IPV, $\beta = .19, F(1, 96) = 13.24, p < .001$.

The squared multiple correlations for each criterion variable were $R^2 = .06$ for LH Factor, $R^2 = .09$ for Executive Function, $R^2 = .14$ for the Perceived Partner Infidelity Risk, $R^2 = .21$ for Mate Retention, and finally 36% of variance in IPV was explained by the cascade model ($R^2 = .36$). Figure 6 represents the entire cascade model.

**Discussion**

Study 3 was conceptually driven by LH theory and complimented Studies 1 and 2 by providing support for a causal model. The results supported the hypothesized causal hierarchical model.

Childhood experiences with parental investment and effort predicted LH strategy in adulthood. Men, who experienced higher levels of parental effort during development, adopted a slower LH strategy, including a high-K strategy and better mental and physical health. Mother and father’s parental investment in forms of frequently performed tasks such as attention to homework, or less frequently performed tasks such as taking the children to the movies or romping and wrestling with them, or lifetime tasks such as helping children deal with fears or helping them find direction in life, may give children information about the predictability of the environment and resource availability.
Children growing up in high parental investment homes may adopt a slow LH strategy. However, it might have been adaptive for children growing up in unstable, unpredictable environments with low levels of parental investment to adjust their LH strategy to a fast LH strategy in response to those environmental conditions.

The results also supported a positive relationship between LH strategies and executive function. Men with slow LH strategies have enhanced levels of executive function and higher levels of emotional control and behavioral self-regulation. Consistent with previous research findings, it may be adaptive for fast LH strategy men in unpredictable environments to take on a more flexible behavioral strategy, be more risk-taking, and deliberate less in decision-making (Figueroedo et al, 2010, 2011).

The results also supported the hypothesis that slow LH strategy, including higher scores on the general personality factor may act as a protective factor against antagonistic thoughts and behaviors. In Study 3, higher levels of executive function were associated with lower perceptions of likelihood of partner infidelity.

The results supported Study 1 and previous research, such that higher levels of perceived partner infidelity risk positively predicted frequency of men’s engagement in non-violent mate retention behaviors. The hierarchy of events again indicates that men who perceive partner likelihood of infidelity may first increase frequency of non-violent mate-retention behaviors before engaging in violence against partners.

Finally, the frequency of mate retention behaviors significantly and positively predicted frequency of IPV including partner-directed physical violence, sustained injuries and partner-directed sexual coercion. The findings support Study 1.
The overall cascade model predicted 36% of variance in IPV. The chain of causal events, traits, and behaviors supported by Study 3, provides further evidence for the link between LH theory and men’s perpetration of violence against intimate partners. Environmental conditions may affect individual’s development of optimal strategies in forms of personality traits, self-regulation, and sometimes even deviant behaviors. Genetic variation and developmental plasticity prepares the individual for adjustments in LH strategies (Ellis et al., 2009).

Furthermore, experiences with parental investment explain about 6% of the variance in LH strategies. It is important to note that this influence may be due to shared genetic factors. High investing parents may possess evolved psychological mechanisms that motivate them to engage in slow LH strategies typical behaviors, including high parenting effort. Because the child shares 50% of his genes with his biological parents, he may have inherited the set of genes that include evolved psychological mechanisms that motivated him to also engage in slow life history typical strategies. Thus, it is important to account for shared genes when investigating effects of parenting styles on children’s traits or behaviors (Harris, 2006). Future behavioral genetics studies may contribute to the literature by identifying the sources of variance as they may be attributed to shared-genetic factors or to parenting styles.

One limitation of Study 3 is the use of a college-student sample. It may be argued that men who have made it to college and are pursuing a college education have already adopted a slow LH strategy. However, the results point to a reliable variance in LH strategy of this sample. Using a college sample also restricts the variability in frequency of engagement in violence and sexual coercion in intimate relationships. Future research
should include a community sample with and without college education to capture a wider spectrum of LH strategies. Future studies may also use women’s partner-reports of violence and sexual coercion in intimate relationships, because men may be reluctant to self-report engaging in some of the severe violent behaviors.

In summary, using a causal cascade model, Study 3 shed some light on the hierarchy of socio-developmental events and behaviors predicted by environmental cues such as parental effort. These cues in turn prepare the individual for a slow or fast adaptive LH strategy. The individual differences in LH strategy in turn predict adjustments in self-regulatory behaviors, antagonistic thoughts such as suspicions of partner infidelity, and subsequent non-violent and violent mate retention behaviors.
GENERAL DISCUSSION

The goal of this dissertation was to explain individual differences in men’s perpetration of violence in intimate relationships in the context of perceived partner infidelity risk within an evolutionary psychological framework. The recurrent adaptive problem of paternity uncertainty has selected for psychological mechanisms that motivate men to engage in anti-cuckoldry behaviors. These evolved traits and behaviors range from the emotion of sexual jealousy leading to non-violent and violent mate retention behaviors.

The results of Study 1-a and 1-b supported a direct positive link between men’s suspicions of partner infidelity and engagement in both non-violent and violent mate-retention behaviors. Furthermore, Study 1 documented a hierarchy of behaviors initiated by suspicions of partner’s likelihood of infidelity, motivating men to engage in non-violent mate retentions first, and finally engaging in physical violence. This hierarchy of events was supported by mediation analyses in Study 1-a and 1-b. After controlling for the variance accounted for by men’s non-violent mate retention behaviors, the relationship between men’s suspicions of partner infidelity and men’s violent behaviors significantly decreased (Kaighobadi et al., 2008).

However, not all men who are suspicious of partner infidelity are likely to perpetrate violence against them. Study 2 complimented Study 1 by investigating individual differences in men’s partner-directed violence in the situational context of
perceived partner-infidelity risk. Study 2 complemented Study 1 also by using an additional measure of violence, i.e., the Injury Assessment Index, and a more direct measure of perceptions of partner infidelity risk. Three moderation analyses revealed interactions between three personality traits of emotional stability, agreeableness, and conscientiousness and the context of perceived likelihood of partner infidelity. All three interactions significantly predicted intimate partner violence. The results of the simple slope analyses partially supported the predictions of Study 2. The results revealed that conscientiousness negatively predicts IPV only at high and medium levels of perceived partner infidelity risk. Thus, low conscientious men who are impulsive and do not foresee the consequences of their behaviors were more likely to resort to violence when the risk of partner-infidelity was high. On the other hand, men who were low on emotional stability and agreeableness were more likely to perpetrate violence when the risk of partner infidelity was low or medium. It was concluded that risk of partner infidelity may have a mitigating effect on men who by their own self-report have lower mate value, i.e. highly neurotic, less agreeable men. These men may understand that by engaging in violence they may actually motivate a partner who is likely to be unfaithful to actually commit infidelity and defect the relationship (Kaighobadi et al., 2009).

Study 3 complimented Study 1 and 2 in a few ways. Study 3 investigated additional individual-difference variables including LH and self-regulation strategies informed by an evolutionary developmental perspective. LH theory, applied to explain within humans individual differences, predicts that unpredictable and harsh developmental environments may select for a cluster of traits and behaviors that together constitute an adaptive strategy, the fast LH strategy. Previous research in fact has found
fast LH individuals to be high on mating effort, low on parenting effort, highly risk-taking, low on emotional control, and self-regulation. Previous research has also demonstrated slow LH individuals to be interested in long-term relationships, high on parenting effort, with high levels of executive function and low levels of risk propensity (Figuero et al., 2006, 2007). Figueredo et al. (2006, 2007) reported that these diverse suit of LH traits together cluster into a single common factor, the “K” factor.

Informed by LH theory, Study 3 hypothesized a hierarchy of events, traits, and behaviors leading to IPV. The results supported a causal model beginning with childhood experiences with parental investment, leading to adjustments in LH strategy and behavioral self-regulation, which in turn predicted men’s perceptions of likelihood of partner infidelity. In support of Studies 1 and 2, perceived partner infidelity risk predicted frequency of engagement in nonviolent mate-retention behaviors, and frequency of non-violent mate-retention behaviors predicted frequency of men’s perpetration of violence and sexual coercion.

Unpredictable environmental conditions (e.g., unstable parental investment) may lead to adoption of a fast LH strategy. Traits associated with fast LH strategies including high mating effort, high risk-propensity, and lack of self-regulation, may facilitate the use of violence and sexual coercion in intimate relationships (Thornhill & Palmer, 2004). Furthermore, because men’s fast LH strategies are in conflict with females’ reproductive strategies and goals, which entail high parental investment and long-term pair-bonds, fast LH men may be more likely to experience conflict in intimate relationships leading to violence. These views are consistent with either the adaptation or by-product hypotheses of sexual coercion (Thornhill & Palmer, 2002, 2004). If a fast LH strategy involves risk-
taking, short-term mating, and low self-regulation, then IPV or sexual coercion may be side effects or byproducts of the fast LH strategy. In other words, LH as an adaptation may be selected for, and IPV or sexual coercion may be by-products of that adaptation, without serving a specific purpose. This hypothesis is also consistent with the view that fast LH underlies general criminality (Ellis, 1988).

However, the results of Study 3 may support the adaptation hypothesis, because the relationship between LH strategies and IPV was investigated considering the context of perceived partner infidelity risk. In other words, fast LH men were more likely to engage in IPV and sexual coercion after being suspicious of partner’s likelihood of infidelity. Thus, the problem of paternity uncertainty may have selected for behaviors that prevent or even punish female sexual infidelity. However men who possess the high “K” protective factor may be able to suppress antagonistic thoughts and anti-social behaviors, thus refrain from engaging in costly behaviors. Fast LH men on the other hand, may not deliberate on the consequences of their behaviors once they suspect female infidelity, and may be more likely to engage in violence or sexual coercion.

An alternative explanation may be derived from Malamuth’s (1998) Confluence Model. Malamuth suggests two general sexual strategies: (1) a convergent interest sexual strategy; and (2) a divergent interest sexual strategy. Men adopting a convergent interest strategy experience less conflict in relationships because they see their reproductive goals as consistent with those of the female partner. Men adopting a divergent interest sexual strategy, on the other hand, may experience more conflict with the female partner, because they perceive their reproductive goals to be inconsistent with that of the female partner’s. According to Malamuth, LH strategies may explain adoption of each strategy,
such that slow LH individuals may be motivated to engage in convergent interest sexual strategies and fast LH individuals may be motivated to engage in divergent interest sexual strategies. Thus, because of these antagonistic thoughts, fast LH men may be more likely to perceive their partner to be unfaithful, causing additional conflict in relationships and engaging in violence as a side-effect of this increased conflict.

Limitations of the Current Study

One limitation of the current study is lack of paired-partner reports. In Study 1, the possibility that apparent sex differences in the strength of the empirical links are attributable to differences in the veracity of men’s self-reports and women’s partner-reports cannot be assessed. Studies 2 and 3 are also limited because they include data only from men’s self-reports. Future studies should collect data from women in form of self-reports to test the above hypotheses against women (specially to support the adaptation hypothesis), and in forms of paired-partner-reports to verify the veracity of men’s self-reports (specially because men may be reluctant to report severe violent behaviors). A second limitation is that we still cannot confidently infer strong causal relationships because the data reflect single assessments. Further research using a methodology that includes repeated assessments over time would provide insights into the nature of the links between childhood experiences, LH strategies, suspicions of female infidelity, male mate retention behaviors, and female-directed violence.

All studies were limited because of restricting the sample to the college population. It may be argued that men who have made it to college may have already adopted a slow LH strategy and may be different in the LH strategies from a non-college
educated sample. Including a non-college educated community sample may provide more variance in measures of LH strategies, and in IPV.

To summarize, by documenting a direct link between men’s perceived partner infidelity risk and men’s partner-directed violence, Study 1, established men’s perceived partner infidelity risk as a social evolutionary context. Studies 2 and 3 were built around the link between these two variables. Study 2, documented interactions between men’s personality traits and the context of perceived partner infidelity risk to predict men’s partner-directed violence. Finally, Study 3 took an evolutionary developmental approach to investigate IPV as a consequence or by-product of men’s fast life-history strategies. The causal cascade model in Study 3 documented a hierarchy of events and traits initiated by early experience with parental investment, leading to an adjustment in LH strategies and behavioral self-regulation, such that men who experience low combined parental investment may be more likely to adopt a fast LH strategy, identified by lower levels of executive function and self-regulation, which in turn predicted higher levels of suspicions of partner infidelity. Finally, and in support of Studies 1 and 2, higher levels of perceived partner infidelity risk predicted men’s frequent engagement in non-violent and violent mate retention behaviors including perpetration of physical violence and sexual coercion in intimate relationships. The three studies included in this dissertation may shed some light on our understanding of predictors of violence in intimate relationships. The studies together built a comprehensive model of proximate and ultimate predictors of such costly behaviors.
Table 1.

*Means and Standard Deviations of Measures (Study 1)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Men’s self-reports (Study 1, N = 165)</th>
<th>Women’s partner-reports (Study 2, N = 306)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accusations of sexual infidelity</td>
<td>1.80  4.03</td>
<td>1.47  3.63</td>
<td>.91</td>
</tr>
<tr>
<td>Direct guarding behaviors</td>
<td>5.55  7.22</td>
<td>5.97  8.20</td>
<td>-.56</td>
</tr>
<tr>
<td>Female-directed violence</td>
<td>5.98  8.90</td>
<td>5.89  9.63</td>
<td>.10</td>
</tr>
</tbody>
</table>

*Note.* All t values are nonsignificant, P > .05.
Table 2.

*Summary of Mediation Analyses (Study 1)*

<table>
<thead>
<tr>
<th>Model</th>
<th>Men’s self-reports (Study 1, N = 165)</th>
<th>Women’s partner-reports (Study 2, N = 306)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2$</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accusations of infidelity $\rightarrow$ Female-directed violence</td>
<td>.03*</td>
<td>.16*</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accusations of infidelity $\rightarrow$ Direct guarding behaviors</td>
<td>.09**</td>
<td>.30**</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct guarding behaviors $\rightarrow$ Female-directed violence</td>
<td>.11**</td>
<td>.29**</td>
</tr>
<tr>
<td>Step 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accusations of infidelity $\rightarrow$ Female-directed violence (after controlling for direct-guarding behaviors)</td>
<td>.01</td>
<td>.08</td>
</tr>
</tbody>
</table>

*Note.* *p* < .05, **p** < .001
Table 3.

Correlations between the Main Variables (Study 2)

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emotional Stability</td>
<td>-</td>
<td>.28***</td>
<td>.19***</td>
<td>-17***</td>
<td>-25***</td>
<td>-12*</td>
<td>-23***</td>
</tr>
<tr>
<td>2. Agreeableness</td>
<td>-</td>
<td>.35***</td>
<td>-.14**</td>
<td>-.17***</td>
<td>-.13*</td>
<td>-19***</td>
<td></td>
</tr>
<tr>
<td>3. Conscientiousness</td>
<td>-</td>
<td>-.12*</td>
<td>-.13**</td>
<td>-.12*</td>
<td>-15**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Infidelity Risk</td>
<td>-</td>
<td>.09</td>
<td>.11*</td>
<td>.11*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. VAI</td>
<td>-</td>
<td></td>
<td></td>
<td>.35***</td>
<td>.83***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. IAI</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>.82***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. OVI</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[M\] 4.51 4.83 4.82 5.21 3.30 0.27 0.00

\[SD\] 0.87 0.93 0.91 6.49 5.47 1.00 0.82

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

VAI = Violence Assessment Index, IAI = Injury Assessment Index, OVI = Overall Violence Index (The OVI is constructed by standardizing scores on the VAI and IAI and then averaging these standardized scores into a composite OVI). Thus, the mean OVI is low (0.00).
Table 4.

*Main and Interaction Effects of Men’s Personality Traits and Perceived Partner Infidelity Risk on Partner-Directed Violence (Study 2)*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>$b$</th>
<th>SE</th>
<th>$T$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotional stability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional stability</td>
<td>-0.19</td>
<td>0.05</td>
<td>-4.03***</td>
</tr>
<tr>
<td>Infidelity risk</td>
<td>0.02</td>
<td>0.01</td>
<td>2.38*</td>
</tr>
<tr>
<td>Emotional stability X Infidelity risk</td>
<td>0.02</td>
<td>0.01</td>
<td>2.32*</td>
</tr>
<tr>
<td><strong>Agreeableness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-0.15</td>
<td>0.04</td>
<td>-3.44**</td>
</tr>
<tr>
<td>Infidelity risk</td>
<td>0.01</td>
<td>0.01</td>
<td>2.11*</td>
</tr>
<tr>
<td>Agreeableness X Infidelity risk</td>
<td>0.02</td>
<td>0.01</td>
<td>2.73**</td>
</tr>
<tr>
<td><strong>Conscientiousness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.15</td>
<td>0.05</td>
<td>-3.16**</td>
</tr>
<tr>
<td>Infidelity risk</td>
<td>0.01</td>
<td>0.01</td>
<td>1.63</td>
</tr>
<tr>
<td>Conscientiousness X Infidelity risk</td>
<td>-0.02</td>
<td>0.01</td>
<td>-2.19*</td>
</tr>
</tbody>
</table>

*Note.* *p < .05, **p < .01, ***p < .001
Table 5.

*The Mean scores, Standard Deviations, and Cronbach’s Alphas and part-whole correlations between each scale and the factor (Study 3).*

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>Alpha</th>
<th>Part-Whole Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parental Effort Factor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father Parental Effort</td>
<td>3.42 (1.20)</td>
<td>.96</td>
<td>.87***</td>
</tr>
<tr>
<td>Mother Parental Effort</td>
<td>3.58 (0.82)</td>
<td>.93</td>
<td>.74***</td>
</tr>
<tr>
<td><strong>LH Factor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mini-K</td>
<td>1.41 (0.72)</td>
<td>.81</td>
<td>.76***</td>
</tr>
<tr>
<td>HKSS</td>
<td>1.74 (0.73)</td>
<td>.88</td>
<td>.83***</td>
</tr>
<tr>
<td>Rand-36</td>
<td>78.39 (13.00)</td>
<td>.91</td>
<td>.76***</td>
</tr>
<tr>
<td>TIPI</td>
<td>.93 (0.78)</td>
<td>.68</td>
<td>.78***</td>
</tr>
<tr>
<td><strong>Executive Function Factor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Control</td>
<td>-1.26 (1.00)</td>
<td>.90</td>
<td>.87***</td>
</tr>
<tr>
<td>Inhibition</td>
<td>-1.74 (1.18)</td>
<td>.80</td>
<td>.84***</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>-1.17 (1.06)</td>
<td>.84</td>
<td>.90***</td>
</tr>
<tr>
<td>Set Shifting</td>
<td>-1.37 (1.07)</td>
<td>.81</td>
<td>.87***</td>
</tr>
<tr>
<td><strong>Perceived Infidelity Factor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-Term MSOI</td>
<td></td>
<td>.85</td>
<td>.68***</td>
</tr>
<tr>
<td>4-item Perceived Infidelity</td>
<td>1.16 (1.72)</td>
<td>.86</td>
<td>.80***</td>
</tr>
<tr>
<td>ITIS-Emotional</td>
<td>-1.06 (1.33)</td>
<td>.83</td>
<td>.89***</td>
</tr>
<tr>
<td>ITIS-Sexual</td>
<td>-1.00 (1.34)</td>
<td>.83</td>
<td>.90***</td>
</tr>
<tr>
<td><strong>IPV Factor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAI</td>
<td>.22 (0.52)</td>
<td>.97</td>
<td>.89***</td>
</tr>
<tr>
<td>IAI</td>
<td>.11 (0.42)</td>
<td>.98</td>
<td>.95***</td>
</tr>
<tr>
<td>SCIRS</td>
<td>.19 (0.48)</td>
<td>.99</td>
<td>.81***</td>
</tr>
</tbody>
</table>

*Note.* ***p < .001
Figure 1. Summary of mediating regression analyses with $\beta$ weights based on men’s self-reports. The *relationship* between Accusations of Infidelity and Female-Directed Violence was no longer significant (.08) after controlling for variance accounted for by Direct Guarding Behaviors. According to men’s self reports, men’s Direct Guarding Behaviors significantly mediates the relationship between Accusations of Sexual Infidelity and Violence (Study 1-A).
Figure 2. Summary of mediating regression analyses with β weights based on women’s partner-reports. The relationship between Accusations of Infidelity and Female-Directed Violence was significantly reduced (.28) after controlling for variance accounted for by Direct Guarding Behaviors. According to women’s partner reports, men’s Direct Guarding Behaviors significantly mediates the relationship between Accusations of Sexual Infidelity and Violence (Study 1-B).
Figure 3. The relationship between men’s emotional stability and partner-directed violence at different levels of perceived infidelity risk (Study 2).
Figure 4. The relationship between men’s agreeableness and partner-directed violence at different levels of perceived infidelity risk (Study 2).
Figure 5. The relationship between men’s conscientiousness and partner-directed violence at different levels of perceived infidelity risk (Study 2).
Figure 6. The Cascade Model (Study 3). The numbers represent Beta weights or standardized regression coefficients.

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

Appendix A

PDIS-Accusations of Infidelity Subscale

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," write the number from the scale below to indicate how often you have said each insulting thing to your partner [for women: ... how often your partner has said each insulting thing to you] (0 = Never, 1 = 1 time, 2 = 2 to 5 times, 3 = 6 to 0 times, 4 = 11 to 24 times, 5 = 25 or more times).

1. My partner accused me of wanting to have sex with many other men.
2. My partner accused me of having sex with another man.
3. My partner accused me of wanting to have sex with another man.
4. My partner accused me of wanting to have sex with one of his friends.
5. My partner accused me of having sex with many other men.
6. My partner called me a whore or a slut.
7. My partner told me that my family is worthless
Appendix B

MRI

Instructions: On the following pages are listed a series of acts or behaviors. In this study, we are interested in the acts that people perform in the context of their relationship with their romantic partner. For each act, use the following scale to indicate how frequently you performed the act within whatever portion of that time you were together with your partner.

0 = Never performed this act
1 = Rarely performed this act
2 = Sometimes performed this act
3 = Often performed this act
___1. Called at unexpected times to see who my partner was with.
___2. Did not take my partner to a party where other men would be present.
___4. Spent all my free time with my partner so that she could not meet anyone else.
___20. Called to make sure my partner was where she said she would be.
___21. Refused to introduce my partner to my same-sex friends.
___22. Insisted that my partner stay at home rather than going out.
___39. Had my friends check up on my partner.
___43. Took my partner away from a gathering where other men were around.
___47. Monopolized my partner’s time at a social gathering.
___59. Questioned my partner about what she did when we were apart.
___64. Dropped by unexpectedly to see what my partner was doing.
___70. At a party, did not let my partner out of my sight.
___76. Read my partner’s personal mail.
___77. Insisted that my partner spend all her free time with me.
___89. Stayed close to my partner while we were at a party.
___96. Did not let my partner talk to other men.
___102. Would not let my partner go out without me.
### Appendix C

**VAI & IAI**

**Instructions:** Conflict is a part of every romantic relationship. Conflict between romantic partners can vary from mild verbal disagreements to serious physical violence. We are interested in how frequently different forms of conflict occur in romantic relationships. Physical conflict sometimes occurs in romantic relationships. The consequences of this conflict can vary from bruising and cuts to broken bones and loss of consciousness. We are interested in identifying how frequently different consequences of physical conflict occur. The following list presents injuries that might be sustained during physical conflict between romantic partners. This is a list of things that might happen when you have differences. Please answer the items below by placing an X in the box that best describes how many times you did each of these things **IN THE PAST SIX (6) MONTHS**, or within whatever portion of that time you were together. Leave blank any question you do not wish to answer.

<table>
<thead>
<tr>
<th>Actions Towards Partner</th>
<th>Never</th>
<th>Only Once</th>
<th>6 Times</th>
<th>12 Times</th>
<th>Once a Week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Restrained partner from moving or leaving the room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Choked partner or held your hand over partner’s mouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Punched partner in the face</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Forced partner to do something against her will</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5. Slapped partner on the face, body, arms, or legs</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Pushed, grabbed, or shoved partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Threatened to kill yourself</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Punched partner on the body, arms, or legs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Used an object to hurt partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Threw things at partner or threw things around the room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Demanded sex when partner didn’t want it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Punched or kicked the walls or furniture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Forced partner to have sex or some kind of sexual activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Tried to smother or drown partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Kicked partner in the body, arms, or legs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Shouted and screamed at partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
17. Threatened partner with an object or weapon
18. Kicked partner in the face
19. Swore at partner or called partner names
20. Threatened to kill partner
21. Twisted partner’s arm
22. Dragged partner or pulled partner by the hair
23. Threatened partner with your fist, hand, or foot
24. Kicked or punched partner in the stomach when pregnant

<table>
<thead>
<tr>
<th>Injuries to Partner</th>
<th>Never</th>
<th>Only Once</th>
<th>6 Times</th>
<th>12 Times</th>
<th>Once a Week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cut on face</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Bruise on body</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Burn anywhere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lost hair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Broken arm or leg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Cut on arm or leg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Bruise on face</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8. Blackout or unconsciousness</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>9. Bruise on arm or leg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Cut anywhere on body</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Black eye</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Internal injury</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Lost or broken tooth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Sickness or vomiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Bleeding on body, arm, or leg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Broken rib</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Split lip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Sprained wrist or ankle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Broken nose, jaw, or cheekbone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Partner had a miscarriage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D
Father’s Parental Effort Scale

Think about the childrearing tasks your father performed for you and your siblings during your childhood and adolescence. Answer each question by circling the number on the line after each question. Please choose the number that most accurately reflects your perceptions of how often your father performed the stated childcare tasks while you were growing up. Leave blank any question you do not wish to answer.

<table>
<thead>
<tr>
<th>Frequent Parental Tasks</th>
<th>Never</th>
<th>Once a week</th>
<th>Twice a week</th>
<th>Once a day</th>
<th>Twice a day</th>
<th>Five times a day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Showing interest in our schoolwork</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Encouraging us to succeed in school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Encouraging us to do our homework</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Encouraging us to read</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Making us feel special</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Teaching us to follow rules at school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Comforting and soothing us when we were upset</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Talking to us about our personal problems</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Being around when we needed them</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Comforting us when we were feeling bad</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Less Frequent Parental Tasks</th>
<th>Never</th>
<th>Once a month</th>
<th>Twice a month</th>
<th>Once a week</th>
<th>Twice a week</th>
<th>Five times a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending school activities in which we</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>participated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guiding us about careers</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Romping, wrestling with us</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Lifetime Parental Tasks</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>----</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching us to be responsible for what we do</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching us about race, prejudice</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instilled important values in us</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking to us about things going on in the world</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encouraging us to say what we felt</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Showing us how to interact with people</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helping us find purpose and direction in our lives</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding us</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encouraging our self-confidence</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helping us deal with our fears</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engaging in athletics with us                                  | 0  | 1  | 2  | 3  | 4  | 5  |
Taking a hike with us                                           | 0  | 1  | 2  | 3  | 4  | 5  |
Taking us to the zoo                                            | 0  | 1  | 2  | 3  | 4  | 5  |
Taking us to movies                                             | 0  | 1  | 2  | 3  | 4  | 5  |
Taking us to the circus                                        | 0  | 1  | 2  | 3  | 4  | 5  |
Playing sports with us                                          | 0  | 1  | 2  | 3  | 4  | 5  |
Taking us to interesting places                                | 0  | 1  | 2  | 3  | 4  | 5  |
Appendix E

MINI-K

Please indicate how strongly you agree or disagree with the following statements. Use the scale below and write your answers in the spaces provided. For any item that does not apply to you, please enter “0”. Leave blank any question you do not wish to answer.

<table>
<thead>
<tr>
<th>Disagree Strongly</th>
<th>Disagree Somewhat</th>
<th>Disagree Slightly</th>
<th>Don’t Know / Not Applicable</th>
<th>Agree Slightly</th>
<th>Agree Somewhat</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
</tr>
</tbody>
</table>

1. I can often tell how things will turn out.
2. I try to understand how I got into a situation to figure out how to handle it.
3. I often find the bright side to a bad situation.
4. I don't give up until I solve my problems.
5. I often make plans in advance.
6. I avoid taking risks.
7. While growing up, I had a close and warm relationship with my biological mother.
8. While growing up, I had a close and warm relationship with my biological father.
9. I have a close and warm relationship with my own children.
10. I have a close and warm romantic relationship with my sexual partner.
11. I would rather have one than several sexual relationships at a time.
12. I have to be closely attached to someone before I am comfortable having sex with them.
13. I am often in social contact with my blood relatives.
14. I often get emotional support and practical help from my blood relatives.
15. I often give emotional support and practical help to my blood relatives.
16. I am often in social contact with my friends.
17. I often get emotional support and practical help from my friends.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18.</td>
<td>I often give emotional support and practical help to my friends.</td>
</tr>
<tr>
<td>19.</td>
<td>I am closely connected to and involved in my community.</td>
</tr>
<tr>
<td>20.</td>
<td>I am closely connected to and involved in my religion.</td>
</tr>
</tbody>
</table>
Please indicate how strongly you agree or disagree with the following statements. Use the scale below and write your answers in the spaces provided. For any item that does not apply to you, please enter “0”. Leave blank any question you do not wish to answer.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
</tr>
</tbody>
</table>

01. The activities I engage in, both at work and elsewhere, are safe (not life threatening)
02. I have good health benefits for my family and me
03. I don’t have major medical problems
04. I am able to provide a decent quality of life for myself and my family
05. I believe people think I am attractive
06. I see my relatives (for example, parents, uncles/aunts, nephews/nieces, etc.) regularly
07. My training and experience are likely to bring me opportunities for promotion and increased income in the future
08. I live in a comfortable and secure home
09. I live in a place where I can easily go outside and enjoy nature
10. I am in good physical shape
11. The neighborhood where I live is safe
12. If I were to face a sudden threat (e.g., flood, fire), I believe I would have the ability to protect myself and my family
13. If I wanted to, it would be easy for me to find and go on a new date
14. If I had children and had to go away for a while, I could count on my relatives to take care of them
15. If something bad happened to me, I’d have many friends ready to help me
16. The people I work with are like me
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>17.</td>
<td>I live in a community to which I am well suited</td>
</tr>
<tr>
<td>18.</td>
<td>My friends look up to me</td>
</tr>
<tr>
<td>19.</td>
<td>If I had children and had to go away for a while, I could count on my friends to take care of them</td>
</tr>
<tr>
<td>20.</td>
<td>I would be missed by people, besides my family, if I were to die</td>
</tr>
<tr>
<td>21.</td>
<td>I meet with my friends regularly</td>
</tr>
<tr>
<td>22.</td>
<td>My second-degree relatives (nephews, cousins, uncles, nieces) are generally healthy</td>
</tr>
<tr>
<td>23.</td>
<td>Are you married or living with a partner?  YES  NO</td>
</tr>
<tr>
<td></td>
<td>If you are married or living with a partner answer the following:</td>
</tr>
<tr>
<td></td>
<td>23a. I believe people find my spouse/partner attractive</td>
</tr>
<tr>
<td></td>
<td>23b. My spouse/partner has not had major medical problems</td>
</tr>
<tr>
<td></td>
<td>23c. If I were out of work, I could rely on my spouse/partner’s income for a while without a significant drop in my quality of life</td>
</tr>
</tbody>
</table>
Appendix G

For each item, please indicate your response by circling the appropriate number. Leave blank any question you do not wish to answer.

1. In general, would you say your health is:

1  Excellent
2  Very Good
3  Good
4  Fair
5  Poor

2. Compared to one year ago, how would you rate your health in general, now?

1  Much better than one year ago
2  Somewhat better than one year ago
3  About the same
4  Somewhat worse than one year ago
5  Much worse than one year ago

The following 10-items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes, Limited a Lot</th>
<th>Yes, Limited a Little</th>
<th>No, Not Limited at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Vigorous activities, such as running, lifting</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>heavy objects, participating in strenuous sports.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Moderate activities, such as moving a table,</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>pushing a vacuum cleaner, bowling, or playing golf.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Lifting or carrying groceries.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Climbing several flights of stairs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Climbing one flight of stairs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Bending, kneeling, or stooping.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Walking more than a mile.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Walking several blocks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. Walking one block.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
12. Bathing or dressing yourself. 1 2 3

During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health**. Yes No

13. Cut down the amount of time you spent on work or other activities. 1 0
14. **Accomplished less** than you would like. 1 0
15. Were limited in the **kind** of work or other activities. 1 0
16. Had **difficulty** performing the work or other activities (for example, it took extra effort). 1 0

During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)? Yes No

17. Cut down the **amount of time** you spent on work or other activities. 1 0
18. **Accomplished less** than you would like. 1 0
19. Didn’t do work or other activities as **carefully** as usual. 1 0

20. During the **past 4 weeks**, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?
   1) Not at all
   2) Slightly
   3) Moderately
   4) Quite a bit
   5) Extremely

21. How much **bodily** pain have you had during the **past 4 weeks**?
   1) None
   2) Very Mild
   3) Mild
   4) Moderate
   5) Severe
   6) Very Severe

22. During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)?
   1) Not at all
   2) A little bit
   3) Moderately
   4) Quite a bit
   5) Extremely

85
These questions are about how you feel and how things have been with you during the past 4 weeks. For each question please give the one answer that comes closest to the way you have been feeling.

How much of the time during the past 4 weeks…

<table>
<thead>
<tr>
<th>All of the Time</th>
<th>Most of the Time</th>
<th>A Good Bit of the Time</th>
<th>Some of the Time</th>
<th>A Little of the Time</th>
<th>None of the Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Did you feel full of pep?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. Have you been a very nervous person?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. Have you felt so down in the dumps that nothing could cheer you up?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. Have you felt calm and peaceful?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. Did you have a lot of energy?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. Have you felt downhearted and blue?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. Did you feel worn out?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30. Have you been a happy person?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31. Did you feel tired?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

32. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

1) All of the time
2) Most of the time
3) Some of the time
4) A little of the time
5) None of the time

How TRUE or FALSE is each of the following statements for you?

<table>
<thead>
<tr>
<th>Definitely True</th>
<th>Mostly True</th>
<th>Don’t Know</th>
<th>Mostly False</th>
<th>Definitely False</th>
</tr>
</thead>
<tbody>
<tr>
<td>33. I seem to get sick a little easier than other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
34. I am as healthy as anybody I know

35. I expect my health to get worse

36. My health is excellent
Appendix H

TIPI

DIRECTIONS: Here are a number of personality traits that may or may not apply to you. Using the scale below, please darken in the appropriate circle next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other. Leave blank any question you do not wish to answer.

<table>
<thead>
<tr>
<th>Disagree Strongly</th>
<th>Disagree Somewhat</th>
<th>Disagree Slightly</th>
<th>Don’t Know / Not Applicable</th>
<th>Agree Slightly</th>
<th>Agree Somewhat</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
</tr>
</tbody>
</table>

1. Extraverted, enthusiastic.
   (-3) (-2) (-1) (0) (1) (2) (3)

2. Critical, quarrelsome.
   (-3) (-2) (-1) (0) (1) (2) (3)

3. Dependable, self-disciplined
   (-3) (-2) (-1) (0) (1) (2) (3)

4. Anxious, easily upset
   (-3) (-2) (-1) (0) (1) (2) (3)

5. Open to new experiences, complex
   (-3) (-2) (-1) (0) (1) (2) (3)

6. Reserved, quiet
   (-3) (-2) (-1) (0) (1) (2) (3)

7. Sympathetic, warm
   (-3) (-2) (-1) (0) (1) (2) (3)

8. Disorganized, careless
   (-3) (-2) (-1) (0) (1) (2) (3)

9. Calm, emotionally stable
   (-3) (-2) (-1) (0) (1) (2) (3)

10. Conventional, uncreative
    (-3) (-2) (-1) (0) (1) (2) (3)
Appendix I

MSOI-Short-Term

Indicate the degree to which you disagree or agree with each statement below by writing a number between 1 and 7 in the space provided.

1=Strongly    2=Disagree   3=Slightly    4=Neutral    5=Slightly    6=Agree
7=Strongly disagree    disagree    agree

____ I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her.

____ Sex without love is ok.

____ I can imagine myself being comfortable and enjoying “casual” sex with different partners.

____ I could easily imagine myself enjoying one night of sex with someone I would never see again.

____ I believe in taking sexual opportunities when I find them.

____ I could enjoy sex with someone that I find highly desirable even if that person doesn’t have long-term potential.

____ Sometimes I’d rather have sex with someone I didn't care about.

____ I would never consider having a brief sexual relationship with someone.

____ I can imagine myself enjoying a brief sexual encounter with someone I find very attractive.

____ I would consider having sex with a stranger, if I could be assured that it was safe and s/he was attractive to me.
Appendix J

ITIS

Please indicate the likelihood of the events below by assigning a number between -3 and 3 to each question. Leave blank any question you do not wish to answer.

<table>
<thead>
<tr>
<th>Not at all likely</th>
<th></th>
<th></th>
<th></th>
<th>Extremely likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

1. How likely is your partner to be emotionally unfaithful to you if she wouldn’t get caught?
2. How likely is your partner to lie about being emotionally unfaithful?
3. How likely is your partner to tell you if she was emotionally unfaithful?
4. How likely do you think it is that your partner would be to get away with being emotionally unfaithful to you?
5. How likely is your partner to hide his/her relationship with you from an attractive person?
6. How likely do you think your partner is to be emotionally unfaithful to future partners?
7. How likely do you think your partner is to be emotionally unfaithful to a present or future husband?
8. How likely is your partner to be sexually unfaithful to you if she wouldn’t get caught?
9. How likely is your partner to lie about being sexually unfaithful?
10. How likely is your partner to tell you if she was sexually unfaithful?
11. How likely do you think it is that your partner would be to get away with being sexually unfaithful to you?
12. How likely do you think your partner is to be emotionally unfaithful to future partners?
13. How likely do you think your partner is to be sexually unfaithful to a present or future husband?
Appendix K

BRIEF-BRS

On the following pages is a list of statements. We would like to know if you have had problems with the behaviors over the past month. Please answer all the items the best that you can. Use the scale below and write your answers in the spaces provided. Leave blank any question you do not wish to answer.

<table>
<thead>
<tr>
<th>Never</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Frequently</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

01. ____ I have angry outbursts
02. ____ I tap my fingers or bounce my legs
03. ____ I need to be reminded to begin a task even when I am willing
04. ____ I have trouble changing from one activity or task to another
05. ____ I overreact emotionally
06. ____ I don’t notice when I cause others to feel bad or get mad until it is too late
07. ____ I have trouble sitting still
08. ____ I have emotional outbursts for little reason
09. ____ I have trouble accepting different ways to solve problems with work, friends, or tasks
10. ____ I talk at the wrong time
11. ____ I react more emotionally to situations than my friends
12. ____ I have problems waiting for my turn
13. ____ I have trouble thinking of a different way to solve a problem when stuck
14. ____ I overreact to small problems
15. ____ I make inappropriate sexual comments
16. ____ When people seem upset with me, I don’t understand why
17. ____ I get emotionally upset easily
18. ____ I make decisions that get me into trouble (legally, financially, socially)
19. ____ I am bothered by having to deal with changes
20. ____ I say things without thinking
21. ____ My anger is intense but ends quickly
22. ____ People say that I am easily distracted
23. ____ People say that I am too emotional
24. ____ I rush through things
25. ____ People say that I don’t think before acting
26. ____ After having a problem, I don’t get over it easily
27. ____ My mood changes frequently
28. ____ I don’t think about consequences before doing something
29. ____ I get upset quickly or easily over little things
30. ____ I am impulsive
Appendix L

*Instructions*: On the following pages are listed a series of acts or behaviors. In this study, we are interested in the acts that people perform in the context of their relationship with their romantic partner. For each act, use the following scale to indicate how frequently *you* performed the act within the past *SIX months* or within whatever portion of that time you were together. Leave blank any question you do not wish to answer.

0 = Never performed this act
1 = Rarely performed this act
2 = Sometimes performed this act
3 = Often performed this act

Please write in the blank to the left of each item the number that best represents how frequently you performed the act within the past *ONE year*. For example, if you never performed the act within the past one year, write a “0” in the blank to the left of the item.

___1. Called to make sure my partner was where she said she would be.
___2. Did not take my partner to a party where other men would be present.
___3. Insisted that my partner spend all her free time with me.
___4. Talked to another woman at a party to make my partner jealous.
___5. Became angry when my partner flirted too much.
___6. Pledged that I could not live without my partner.
___7. Told my partner that we needed a total commitment to each other.
___8. Pointed out to my partner the flaws of another man.
___10. Performed sexual favors to keep my partner around.
___11. Made myself “extra attractive” for my partner.
___12. Complimented my partner on her appearance.
___13. Gave in to my partner’s every wish.
___14. Told my same-sex friends how much my partner and I were in love.
___15. Put my arm around my partner in front of others.
___16. Asked my partner to wear my ring.
___17. Told other men that my partner was a pain.
___18. Stared coldly at a man who was looking at my partner.
___19. Got my friends to beat up someone who was interested in my partner.
___20. Snooped through my partner’s personal belongings.
___21. Took my partner away from a gathering where other men were around.
___22. Spent all my free time with my partner so that she could not meet anyone else.
___23. Showed interest in another woman to make my partner angry.
___24. Threatened to break-up if my partner ever cheated on me.
___25. Told my partner that I was dependent on my partner.
___26. Asked my partner to marry me.
___27. Told my partner that another man was stupid.

92
28. Took my partner out to a nice restaurant.
29. Made sure that I looked nice for my partner.
30. Displayed greater affection for my partner.
31. Went along with everything my partner said.
32. Bragged about my partner to other men.
33. Held my partner’s hand while other men were around.
34. Gave my partner jewelry to signify that she was taken.
35. Told other men that my partner was not a nice person.
36. Gave a man a dirty look when he looked at my partner.
37. Slapped a man who made a pass at my partner.
Appendix M

SCIRS

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 be anonymous. Leave blank any question you do not wish to answer.

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 SIX months (or within whatever portion of that time you were together) 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 six months
1 = Act occurred 1 time in the past six months
2 = Act occurred 2 times in the past six months
3 = Act occurred 3 to 5 times in the past six months
4 = Act occurred 6 to 10 times in the past six months
5 = Act occurred 11 OR MORE times in the past six 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 other benefits so that she would feel obligated to have sex with me.
____ 6. I reminded my partner of gifts or other benefits I gave 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 she 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.
REFERENCES


