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GENERALIZED VS. GENDER-SPECIFIC INTIMATE PARTNER VIOLENCE: CHILDHOOD EXPOSURE AND ADULT PERPETRATION

By

Erika Sargent DeJonghe

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

2007

ABSTRACT

GENERALIZED VS. GENDER SPECIFIC INTIMATE PARTNER VIOLENCE: CHILDHOOD EXPOSURE AND ADULT PERPETRATION

By

Erika Sargent DeJonghe

Childhood witnessing of intimate partner violence (IPV—defined here as violence between a man and woman engaged in a romantic relationship) is often correlated with adult perpetration of IPV. Social learning theory has typically been used to explain this link; that is, the violent relationships witnessed in childhood are learned and then acted out in adulthood. However, adult male IPV is not a unitary phenomenon. Rather, distinct subtypes exist, which may be characterized by the direction of the violence (i.e., bidirectional or unidirectional) and the gender of the perpetrator and victim. This study explores the transmission of each of three subtypes (bidirectional, predominantly male-to-female, and predominantly female-to-male).

Participants were 723 male undergraduates enrolled in psychology courses at Michigan State University. Participants completed self-report questionnaires describing their history of exposure to IPV in childhood, their attitudes about gender, and their perpetration of violence in adulthood. A sub-sample of participants completed a laboratory protocol designed to assess differential aggression towards males vs. females.

Results of the study suggest that the subtype of IPV to which a child is exposed may affect outcomes in adulthood. All three subtypes of childhood witnessing of IPV (CIPV groups) had significantly higher adult IPV scores as compared to the no CIPV control group, $F(3,719)=14.41$, $p < .01$. Overall, participants exposed to predominantly

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male-to-female IPV in childhood tended to show greater aggression toward male confederates, $F(3,455)=3.33$, $p < .05$. No such differences were found among participants exposed to either more female-to-male IPV or roughly equivalent levels of male-to-female and female-to-male IPV. Predictive relationships within each sub-type were also examined using structural equation modeling. Boys exposed to proportionally more female-to-male IPV or exposed to roughly equivalent levels of male-to-female and female-to-male IPV are especially likely to develop hostile attitudes toward women and resultant violent behavior toward women in adulthood, $\chi^2=56.45$, $df=30$, $p=.00$; RMSEA=.08; CFI=.96; GFI=.93; NNFI=.94, and $\chi^2=58.70$, $df=30$, $p=.00$; RMSEA=.06; CFI=.98; GFI=.95; NNFI=.97, respectively. No such mediation was found among boys exposed to proportionally more male-to-female violence $\chi^2=41.45$, $df=30$, $p=.08$; RMSEA=.06; CFI=.98; GFI=.93; NNFI=.97. Thus, exposure to female violence of various types during childhood seems to lead to a possibly retaliatory aggression in adulthood toward women. This represents a largely unexplored mode of transmission of violence across generations.

ACKNOWLEDGEMENTS

I would like to thank my dissertation chair, G. Anne Bogat, for her tireless guidance and support throughout my graduate education. She has served as mentor, teacher, editor, and friend to me for the past seven years. I could not have made it through graduate school without her assistance.

I would also like to thank the members of my dissertation committee, Alytia A. Levendosky, Kelly Klump, and Nicole Buchanan. The members of my committee were consistently patient and supportive throughout the dissertation project. In addition, I would particularly like to recognize the special role that Dr. Levendosky played in mentoring me in my research training during graduate school.

This research would not have been possible without the aid of several gifted undergraduates who assisted in data collection and data entry. I would like to recognize the contributions of the following outstanding undergraduate research assistants on the project: Rebecca Parker, Steve Frazier, Dianna Dwyer, Shane Santek, Drew Hamilton, Max Rosenbaum, and Jane Yam.

In addition, I would like to thank my friends and mentors at the MSU Graduate School. I would like to thank Tony Nunez, Karen Klomparens, Julie Brockner, and Judy Ward for their friendship and support in the final stages of graduate school.

Finally, I would like to thank the friends and family who supported me throughout graduate school. I would like to thank my sister, Jessica, for her consistent availability for moral support via telephone. I would like to thank my parents, Lynn and Lutgard DeJonghe, for their practical, emotional, and financial support. Most importantly, I would

also like to thank my wonderful husband, Gregory Nicholson, who read every draft of this dissertation and is the only reason it is not riddled with typos.

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Introduction

Childhood witnessing of intimate partner violence (IPV—defined here as violence between a man and woman engaged in a romantic relationship) is often correlated with adult perpetration of IPV. Social learning theory has typically been used to explain this link; that is, the violent relationships witnessed in childhood are acted out in adulthood. While this is a straightforward explanation for intergenerational transmission of IPV, closer examination reveals that simple observational learning cannot fully account for this pattern. Descriptive research reveals that IPV is not a unitary phenomenon. Rather, distinct subtypes exist, which may be characterized by the direction of the violence (i.e. bidirectional or unidirectional) and the gender of the perpetrator and victim. Typically, two subtypes are described, a more generalized, bidirectional, non-gender specific pattern and a gender-specific pattern, in which a male batters his female partner. Thus, any attempt to address the transmission of IPV must explain the etiology of each subtype. This study will experimentally test the theory that, among males exposed to IPV in childhood, the transmission of each subtype occurs via two different social learning pathways, one which is tied to beliefs about gender, and one which is not. It is proposed that pathways are established by the characteristics of the violence to which an individual boy is exposed during childhood. In the first subtype, he witnesses IPV that is of the more generalized (i.e. non-gender specific) type and acquires an overall increased risk for violent behavior in adulthood. In the second case, he witnesses violence that is specifically male-to-female. In this child's experience, men are perpetrators of violence toward women. As the male child learns concurrently about the masculine gender and violent behavior, the two become linked, resulting in a more specialized type of learning

of violent behavior that is tied to beliefs about gender. That is, the male child learns not simply to be violent but to be violent specifically toward females. In addition, the current study incorporates a third possible type of childhood IPV exposure, in which females are more often violent than males. In this case, the masculine gender is not modeled by the perpetrator of violence, making the entanglement of gender and violence described above less likely. Thus, in this case the more generalized pattern of violent behavior acquisition would be expected.

Intergenerational Transmission of IPV and Social Learning

Many retrospective studies have documented an increased likelihood of engaging in IPV in adulthood if one is the victim or witness of aggression and abuse in childhood (1987; Fagan, Stewart, & Hansen, 1983; Gelles, 1972; McCord, 1988; Roy, 1982; Steinmetz, 1977; Straus, Gelles, & Steinmetz, 1980; Walker, 1984). Research also suggests that children who witness IPV, in particular, are at an increased likelihood of becoming involved with IPV in adulthood (Jankowski, Leitenberg, Henning, & Coffey, 1999; Kwong, Bartholomew, Henderson, & Trinke, 2003; Stith et al., 2000). For example, Rosenbaum and O'Leary (1981) found that males who were abusive to their spouses were more likely to come from families in which marital violence occurred as compared to a control group. Examining risk markers for IPV, Hotaling and Sugarman (1990) found that childhood exposure to violent role models, particularly inter-parental violence and parent-to-child violence, was correlated with partner violence. Similarly, Kalmuss (1984) examined reports of childhood victimization, witnessing of violence, and adult marital violence in a nationally representative sample of over two thousand adults. Kalmuss found an increased likelihood of severe marital aggression when either males or

females witnessed inter-parental violence. This increase in risk for adult marital violence due to witnessing IPV was greater than the increase in risk due to being hit by parents during adolescence, though both increases in risk were significant.

In an effort to summarize these and other findings on the relationship between witnessing of family violence in childhood and adult violent behavior, Stith and colleagues (2000) conducted a meta-analysis which examined the relationship between witnessing or experiencing family violence in childhood and receiving or perpetrating partner violence in adulthood. They found that growing up in an abusive home is positively related to becoming involved in a violent marital relationship. They also found a differential effect of gender, such that those who grow up in violent homes and become perpetrators of spouse abuse are more likely to be men, while those who become victims are more likely to be women. However, most of these studies, and hence the subsequent meta-analysis, are limited by the fact that they rely on retrospective reports of childhood exposure to IPV.

A notable exception to the over-reliance on retrospective reports of family violence can be found in Ehrensaft, Cohen, Brown, Smailes, Chen, and Johnson's (2003) findings from a 20-year, prospective study of children in New York. The authors found that, among the over 500, randomly selected subjects they followed, childhood exposure to inter-parental violence was predictive of adult partner violence. This finding was independent of risks for partner violence attributable to other factors, including childhood physical or sexual abuse, parenting variables such as use of physical punishment, and the presence of adolescent conduct disorder. This study provides strong support for the unique risk for IPV perpetration conferred by childhood witnessing of IPV. However, as

is the case in most studies of intergenerational transmission of IPV, this study merely demonstrated a correlation between childhood exposure and adult IPV and did not directly assess the violent adult behavior.

Social learning theory has often been employed to account for the development of IPV suggesting that acquisition of violent behavior may be occurring via the observation of parental models. Bandura (1973) asserts that modeling of aggressive behavior may result in three possible outcomes: the acquisition of new behaviors (i.e., "observational learning"), the strengthening or weakening of inhibitions of previously learned behavior, and the facilitation of similar behavior through social prompts. It is the first of these three, "observational learning," which is of greatest importance in understanding the impact of childhood exposure to IPV. For observational leaning to occur, the following steps must take place. First, the person must attend to the behavior. The degree to which a behavioral model is attended is influenced by several factors, including the functional value of the behavior (whether the behavior produces the desired effect), the prestige and/or power of the model, and the interpersonal attractiveness of the model. Next the behavior must be retained in the person's memory. This step involves both symbolic encoding of the behavior as well as both mental and behavioral rehearsal of the behavior. The behavior must also be reproduced. As Bandura points out, "the amount of observational learning that a person can exhibit behaviorally depends on whether or not he has the required component skills" (p. 71). Finally sufficient reinforcement and motivation must exist for the behavior to be reproduced.

Extensive research has borne out Bandura's assertion that aggressive behavior may be learned via exposure to an aggressive behavioral model. A well-known series of

experiments, beginning with Bandura, Ross, and Ross (1961), involved experimental protocols in which children observed adult models being verbally and physically aggressive toward an inflated plastic doll. Children in the studies were then allowed to play freely with toys, including the doll. They exhibited the aggressive behaviors modeled by the adult as well as displayed additional aggressive behaviors. Similarly, Puleo (1978) conducted an experimental test of children's response to an aggressive model of behavior. He found that kindergartners exposed to a video in which a male model received social praise for aggressive play were more likely to behave aggressively in a free-play setting as compared to children not exposed to the aggressive model. In addition, he found that boys tended to display more aggressive behavior than girls, though it is not clear if this was related to the gender of the aggressive model, as no female model was employed for comparison. Ethnographic research in two separate Zapotec Indian communities revealed that children (ages 3-8 years) displayed more actual fighting and play fighting in a community with higher levels of adult violence as compared to a community with lower levels of adult violence (Fry, 1988). In contrast, children in the less violent community were more likely to employ threat without physical contact. Fry suggests that these community-appropriate levels of violence were perpetuated by learning in childhood and carried through into adulthood.

Evidence that children exposed to IPV may learn the violent behaviors they observe may be most readily seen in the numerous studies that document increased levels of aggressive behavior in exposed children. For example, in a six-year, longitudinal study of children and their mothers, McCloskey and Lichter (2003) found elevated levels of aggression toward peers and toward parents among adolescents who were exposed to IPV

as children. Cross sectional studies have also revealed elevated levels of externalizing behavior problems, including aggression, among children exposed to IPV (Burgess et al., 1987; Fantuzzo et al., 1991; Hughes, 1988; O'Keefe, 1994; Spaccarelli, Sandler, & Roosa, 1994; Wolfe, Jaffe, Wilson, & Zak, 1985). Similar elevations in levels of aggression may be found among children who are themselves victims of abuse (Manly, Kim, Rogosch, & Cicchetti, 2001; Rogosch & Cicchetti, 1995), though as children are themselves victimized in these cases, it is less clear whether victimization or observational learning as a result of witnessing violence leads to increased aggression.

For social learning from childhood witnessing of IPV to account for the perpetration of later adult IPV, the observational learning of violence must by sustained into adulthood. Empirical evidence suggests that these effects might persist over time. Experimental evidence indicates that children reproduced 70% of modeled aggressive behavior immediately following exposure and demonstrated 40% eight months later(Hicks, 1968), although the aggressive models were not parents. Additionally, male rats exposed to episodes of paternal aggression at 31 days of age were more likely to respond aggressively to an unfamiliar intruder at 103-214 days of age (Lore & Meyerson, 1988). However, the time frames in these studies clearly do not correspond to those necessary in order to show the link between social learning of violence in childhood and adult perpetration of IPV.

Persistence of modeling effects over longer periods of time has been supported by correlational research. Employing a multi-generational longitudinal design, Conger, Neppl, Kim, and Scaramella (2003) found aggressive parenting behaviors were predictive of children themselves displaying aggressive parenting 5-7 years later, a finding

consistent with the social learning of violent behavior in the family. Shahinfar, Kupersmidt, and Matza (2001) found that, in a sample of highly aggressive incarcerated adolescent males, those who had previously witnessed severe violence tended to expect positive outcomes for the use of aggression. Males who had previously been severely violently victimized tended to express approval for aggression as a social response. Burton (2003) found that among 179 sexually abusive adolescents, abusers were likely to replicate characteristics of their own childhood sexual abuse, including match between the gender of the perpetrator and participant's victim, type of sexual acts perpetrated, and perpetrator *modus operandi* (e.g., employing favors, games, baby sitting the victims, or threat of physical force). Similarly, Burton, Nesmith, and Badten (1997) gathered clinician reports regarding the treatment of sexually aggressive children under age 12 from 155 clinicians. Among the 287 children for which the clinicians provided data, 72% had themselves been sexually abused (60% by a caregiver). Those children who were known to have been sexually abused tended to be younger when they first displayed sexually abusive behavior. In addition, 48% of the children had at least one parent with a known sexual abuse history.

One potential criticism of the assertion that intergenerational transmission of violent behavior occurs via social learning is that the behavior may be passed genetically from parent to child. However, evidence for the genetic transmission of violent behaviors is mixed at best. Research comparing rates of self-reported aggressive behavior found higher correlations between monozygotic twin pairs than dizygotic twin pairs (Rushton, Fulker, Neale, Nais, & Eysenck, 1986). Similarly, maternal reports of behavior of twin children have shown a heritability factor for aggression (Ghodsian-Carpey & Baker,

1987). On the other hand, Mednick, Gabrielli, and Hutchings (1984) failed to find high levels of concordance for violent criminal behavior between biological parents and adoptees, despite finding high levels of concordance for non-violent criminal behavior. Based upon a review of the literature, Miles and Carey (1997) discerned that evidence of heritability of aggressive behavior is influenced by methodological factors, such as age of sample and self-report vs. observation, indicating the need for further and more controlled research in this area.

Finally, research into the effects of IPV has demonstrated that IPV accounts for unique variance in child outcomes independent of genetic factors. For example, studies of monozygotic and dizygotic twin pairs have found that IPV exposure accounted for unique variance (independent of genetic effects) in children's internalizing and externalizing problems (Jaffee, Moffitt, Caspi, Taylor, & Arseneault, 2002) as well as variance in child IQ (Koenen, Moffitt, Caspi, Taylor, & Purcell, 2003). Thus, even if genetic transmission is a factor in intergenerational transmission of violence, environmental factors, such as social learning of aggressive behavior, appear to play a significant role in determining outcomes.

Another, perhaps more significant criticism of this research is that studies which document the relationship between childhood witnessing of IPV and subsequent adult IPV have focused specifically on the witnessing of interparental violence. However, research on learning of aggressive behavior (other than IPV) demonstrated that children can reproduce the aggressive behaviors of persons other than parents (e.g., Bandura et al., 1968; Hicks, 1968). Thus, measuring childhood exposure to IPV by examining only interparental violence may not accurately represent the amount or characterization of the

IPV that children observe. For example, in their meta-analysis of studies linking childhood exposure to violence and adult IPV, Stith and colleagues (2000) describe two types of exposure to violence described in the literature, child abuse victimization and witnessing of inter-parental abuse. However, given the high prevalence of IPV [estimates of lifetime prevalence suggesting that 25-30% of women are beaten by partners at least once in the course of relationships (Pagelow, 1984, cited in Osofsky, 2003) and that 20-25% of children report witnessing incidents of IPV between parents (McCloskey, Figueredo, & Koss, 1995; McCloskey & Walker, 2000; O'Brien, John, Margolin, & Erel, 1994)], it seems likely that children may witness IPV between adults other than their parents. Indeed, a telephone survey commissioned by the Texas Family Violence Council (Saurage Research Inc., 2003, May) found that 74% of people were either themselves the victim of IPV, or had a family member, friend, or co-worker who a victim. Given the high prevalence of IPV in the population, studies of childhood exposure to IPV that collect information on only exposure to interparental IPV may fail to capture all the opportunities for social learning of IPV experienced by children (e.g., witnessing IPV between friends' parents, grandparents, etc.), Underestimating childhood exposure to IPV and consequently restricting the range and accuracy of indicators of childhood exposure to IPV may attenuate the relationships that are observed between childhood exposure to IPV and adult violent behavior.

While review of research on social learning of aggression does suggest that investigations into childhood witnessing of IPV should be expanded to included violence between non-parent couples the child may observe, overall, social learning theory appears to present a highly plausible explanation for how children exposed to IPV may

come to engage in IPV in adulthood. However, if IPV followed the general pattern of observational learning, the violence acquired would be expected to generalize; that is, it would not be confined to romantic relationships. While this may be the situation with some perpetrators of IPV, it does not fully describe all perpetrators, as has been documented in the batterer typologies described below.

Subtypes of IPV

Descriptive research on adult IPV has produced multiple typologies to describe the variety of IPV that may be observed. While no single batterer typology seems to be supported over and above the others, all of the batterer typologies described above converge on the notion that battering behavior can be characterized by two different specificities of the targets of the violent behavior. The first of these is a highly specific pattern in which a male is violent toward his female partner and not toward others. This narrower, gender-specific type may be seen in Johnson's (1995) patriarchal terrorism type, and Gottman and colleagues' (1995)Type 2 group, described below. The second is a more generalized pattern of violent behavior, which is not specifically male to female and not necessarily specific to the family. This general group may be seen in Gottman and colleagues' (1995) Type 1 group, Johnson's (1995) common-couple violence group, Holttzworth-Munroe and Stuart's (1994) generally-violent/anti-social group, and Dutton's (1998) instrumental/undercontrolled type, also described below.

Early research on batterer typologies differentiated batterers along three dimensions: severity/frequency of marital violence, generality of violence (inside vs. outside marital relationship), and batterer psychopathology/personality (Holtzworth-Munroe & Stuart, 1994). For example, Mott-McDonald Associates (1979) proposed

categories of "hitters" (who engaged in infrequent, less severe abuse) and "batterers" (who engaged in more severe, more frequent abuse, and more psychological abuse). Differentiation based on generality of violence distinguished between men who engaged in generalized violence and men who were violent only within the family (Cadsky & Crawford, 1988; Fagan et al., 1983; Sheilds, McCall, & Hanneke, 1988). These studies tended to find that generally violent men were also more severely violent, suggesting that this distinction alone might be insufficient to fully describe types of battering. Finally, batterers were described according to batterer psychopathology or personality. Examples of such typologies include Faulk (1974), Elbow (1977), and Hershorn and Rosenbaum (1991).

Based upon their review of the literature, Holtzworth-Munroe and Stuart (1994) proposed that three subtypes of batterers will be found by researchers: family-only, dysphoric/borderline, and generally violent/antisocial. The family-only batterers are described as being violent only in the family and likely to engage in less severe, less frequent abuse. This group is also expected to comprise the largest number of batterers in the community, approximately 50%. However, the authors are careful to point out that rates are expected to be lower in clinical samples. The dysphoric/borderline group is expected to engage in moderate to severe marital violence, primarily within the family. They are also more likely to have borderline and schiziodal personality characteristics, be psychologically distressed, be emotionally volatile, and have problems with alcohol and drug abuse. This group is expected to comprise approximately 25 % of batterers. Generally violent/antisocial batterers are expected to engage in moderate to severe marital violence as well as high levels of violence outside the family. They are also

expected to have a greater history of criminal behavior and legal involvement as well as problems with drug and alcohol abuse. In addition, this group of batterers is most likely to have antisocial personality or psychopathy. Generally violent/antisocial batterers are expected to comprise 25% of batterers.

Holtzworth-Munroe, Meehan, Herron, Rehman, and Stuart (2000) conducted an empirical investigation of whether these typologies could be demonstrated in a community sample. The authors compared a sample of 102 couples in which the husband was maritally violent to a group of 23 maritally distressed couples without marital violence and to a group of 38 non-distressed couples without marital violence. Using cluster analysis, the authors determined that the maritally violent men were best grouped into four clusters. Three of these clusters resembled the family-only, borderline, and generally violent-antisocial groups proposed by Holtzworth-Munroe and Stuart (1994). A fourth group was intermediate to the family-only and generally violent groups and was labeled the low-level-antisocial group. These clusters were then compared to the non-violent comparison groups. The authors assert that the family-only group found in this community sample is perhaps unlike the family-only group documented in clinical samples, pointing to evidence that the family-only group in their study appears to score lower on measures of violence and psychopathology as compared to family-only groups in other studies. The authors assert that the low-level-antisocial group they documented more closely resembled the family-only groups found in studies using clinical samples and that their family-only group actually was more consistent with the low levels of violence found in community samples.

Gottman and colleagues (1995) derived a batterer typology based on measurement of heart rate reactivity during conflictual interactions with spouses. Based upon research suggesting that criminal behavior is associated with lower levels of physiological reactivity, Gottman and colleagues divided a sample of batterers into two groups based on their heart rate during a conflict with a spouse and in a prior baseline measurement. Men whose heart rates decreased during marital conflict were termed "Type 1" and those whose heart rates increased were termed "Type 2." Though the two groups of batters did not exhibit significant differences in their levels of violence with their spouses, significant differences did emerge between the types. Type 1 batterers were more generally violent (i.e., towards friends, strangers, coworkers, etc.) and were more likely to exhibit anti-social or aggressive-sadistic personality disorders. These men were also more likely to express high levels of emotional aggression early in conflictual marital interactions, whereas Type 2 batterers' emotional aggression tended to escalate during episodes of conflict. Type 1 batterers also appeared to elicit more fear and less anger from their wives during conflict. At a 2-year follow-up, none of the Type 1 batterers had been separated or divorced from their spouses, as compared to a 27% separation/divorce rate among Type 2 batterers. The authors suggest that this may be because of the fear elicited by Type 1 batterers, making wives more afraid to leave these men.

Dutton (1998) has proposed a similarly integrative typology of batterers, one that describes the severity, generality, and personality of batterers in each group, although the explanatory power of Dutton's typology resides in the batterer's personality. Dutton has proposed multiple "types" of personality structures that may account for violence in romantic relationships. Dutton suggests that batterers exist along two dimensions, from

overcontrolled to undercontrolled and from impulsive to instrumental. Overcontrolled men "deny their rage while experiencing chronic frustration and resentment," whereas undercontrolled men act out more frequently (p. 6). Men who are impulsive act out violently in response to internal tension, whereas instrumental men "used violence 'coldly' to obtain specific objectives" (p. 6). Dutton asserts that from these two dimensions, three distinct types of batterers emerge. Overcontrolled batterers typically display flat affect or cheerfulness, make attempts to avoid conflict, often have drunk driving arrests, can display social desirability, experience chronic resentment, and have preoccupied attachment styles. Instrumental/undercontrolled (or "psychopathic") batterers are typically violent both outside and inside the home, have a history of antisocial behavior, express acceptance of violence, were usually victims of physical abuse as children, have poor empathy skills, have associations with criminal subcultures, and tend to have dismissing attachment styles. Finally, impulsive/undercontrolled (or "borderline") batterers are typically cyclical in their abuse, express high levels of jealousy, are violent primarily within the intimate relationship, experience high levels of depression, dysphoria, and anxiety-based rage, tend to be ambivalent toward their wives or partners, and tend to have fearful and angry attachment styles. It is this third category of abuser upon which Dutton has focused his research, and it is this type that fits the well-known cyclical pattern of increasing hostility and resentment toward partner, an outburst of aggressive behavior, and a period of contrition. Dutton (1998) asserts that it is this type of batterer who poses the most significant risk to victims and is most likely to continue to victimize his partner for long periods of time.

Most of these typologies seem to describe unidirectional violence, that which is perpetrated by a male against a female partner. It is not clear that the bulk of violence that occurs in romantic relationships is typically perpetrated by a male against a female. Indeed, research designed to elicit information on general rates of violence in romantic relationships reveals the absence of a bias in the male direction for violent acts with a romantic partner (Archer, 2000; Straus, 1990, 1997). Johnson (1995) described an apparent contradiction in the literature regarding marital violence. While research using samples of battered women typically taken from shelters or contact with the justice system documented far greater male to female violence than female to male violence (Dobash & Dobash, 1992; Gaquin, 1978; Kincaid, 1982; Levinger, 1966) large-scale survey research on couples residing in the community indicates that males and females engage in violence at similar rates (e.g., Steinmetz, 1978) as did a meta-analysis of such studies (Archer, 2000).

Johnson (1995) proposed that this apparent difference in findings could be accounted for by the existence of two forms of marital violence that are distributed differently in different populations: male to female violence in which men "systematically terrorize their wives," termed "patriarchal terrorism" and bi-directional, gender-symmetrical violence, termed "common couple violence" (Johnson, 1995, p. 287). He asserts that patriarchal terrorism is characterized by frequent abuse (occurring on average more than once per week), which escalates in seriousness and is almost entirely unidirectional. The motivation for this type of abuse is held to be "a man's desire to exercise general control over his woman" (Johnson, 1995, p. 287). It is this type of violence that is expected to be most commonly found in shelter samples and samples

drawn from the criminal justice system. Unlike patriarchal terrorism, common couple violence is less frequent (occurring every two months on average), is less like likely to escalate, and is equally likely to be initiated by men and women. It is this type of violence that seems to be captured by large-scale survey research. Johnson makes the important point that it is highly likely that women experiencing patriarchal terrorism would be unable to complete surveys in which they were asked to report their partner's violent behavior.

Empirical investigations have indicated some support for the validity of Johnson's typology. In a meta-analysis of over 80 studies, Archer (2000) found there was little overall difference in the proportions of males and females reporting physically violent acts toward a romantic partner; this is consistent with the notion of "common couple violence." On the other hand, a meta-analysis of 14-16 studies reporting rates of injury revealed that men were more likely to inflict injury on a romantic partner; this is consistent with the notion of "patriarchal terrorism." In addition, among samples that were selected for high levels of male violence (e.g., refugee samples, couples referred to a treatment program for marital violence), Archer found a strong tendency for males to aggress toward their female partners but not vice versa. An additional study has documented higher rates of male violence toward females in samples selected for high rates of partner violence vs. community samples; this is consistent with Johnson's typology (Graham Kevan & Archer, 2003). At the same time, cross-cultural research seems to suggest that rates of "patriarchal terrorism" may be higher in non-western cultures (Efoghe, 1989; Fagan et al., 1983; Kim & Cho, 1992; Kumagai & Straus, 1983).

Given the recurrent documentation of these different subtypes of batterers, it is important for research to account for the etiology of the subtypes. Research into batterer typologies has not yet bridged this important gap. While empirical investigations have closely examined and characterized subtypes, research has not yet focused on how the subtypes emerge.

Relationship between IPV and Gender

While the evidence described above suggests that social learning may serve as a mechanism for intergenerational transmission of IPV, it does not account for the existence of the two subtypes of IPV, generalized and gender-specific. The generalized type, in which both partners are violent, appears consistent with other findings on observational learning of aggressive behavior, in which violent behavior is observed, mimicked, and expanded to new forms of violence. However, in the case of gender-specific IPV, the behavior is distinguished by its specific unidirectionality—male toward female. In this case, it appears that learned aggressive behavior becomes gender-specific. The current study proposes that, gender-specific IPV is driven by attitudes about gender, including gender stereotypes and hostile attitudes toward women.

This assertion is informed by prior research which has demonstrated an association between violence against women and gender socialization. For example, research with college-age males has demonstrated associations between self-reported sexual assault perpetration and beliefs about gender (Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001) as well as between sexual aggression and rape myth acceptance (Christopher, Madura, & Weaver, 1998). Similarly, data from the National Youth Survey indicated that more stereotypical, traditional beliefs about gender were associated with

beliefs that victims of rapes precipitate their attacks and that participation in interpersonal violence was predictive of rape myth acceptance for males (Marciniak, 1998). Gender socialization has also been associated with the perpetration of IPV in particular. For example, male gender identity has been associated with psychological abuse of a spouse following marital separation (Toews, McKenry, & Catlett, 2003) and hostility toward women expressed verbally with peers was predictive of later aggression toward romantic partners (Capaldi, Dishion, Stoolmiller, & Yoerger, 2001). However, it should be noted that Yick (2001) failed to find a similar relationship between IPV and attitudes toward women. Finally, Stith and Farley (1993) found that observation of violence in childhood predicted approval of marital violence and reduced sex-role egalitarianism. These indicators of beliefs about gender, in turn, predicted use of severe violence by males toward their spouses.

While the studies described above do suggest that attitudes about gender may be an important contributor to IPV, these studies leave unanswered questions. For example, most do not explain whether the violence occurred as a specific pattern of violence against women, or whether it was a component of more generalized violent behavior. To fully explore whether the violence is gender specific, it would be necessary to measure directly whether the participants in the study would aggress toward women, but not toward men. Furthermore, none of the studies described above examine how childhood exposure to IPV and attitudes about gender may contribute to the development of the subtypes of adult IPV. To fully investigate why gender beliefs may influence outcomes, research should explore how socially constructed gender and individual gender identities

influence outcomes. Studies could then determine whether these variables are uniquely associated with the perpetration of particular subtypes of IPV.

Subtype Transmission

Thus, while studies have demonstrated that childhood exposure to IPV appears to be transmitted to child witnesses via observational learning, this process alone does not account for the gender specific vs. generalized patterns of IPV observed among perpetrators. To account for the subtypes, the association between violent behavior and beliefs about gender seen in men who are violent against women must develop, such that the male learns to be violent toward females. Insight into how this process might occur is provided by incorporating Bussey and Bandura's (1999) extension of social learning theory to gender development.

Bussey and Bandura's (1999) social cognitive theory of gender development asserts that children's gender identity and understanding of gender develops via observation of models, their own enactive experiences, and direct instruction from others. The authors suggest that modeling is particularly important because children learn through modeling, even in infancy, and because learning through modeling is especially fast and effective. The authors point out that gender stereotypes are widely enacted and that children are especially likely to attend to and learn from same-sex models (Bussey & Bandura, 1984). Their assertion is supported by evidence that children's knowledge, conceptualizations, and enactments of gender may be learned from observation of adults. For example, Fisher-Thompson and Burke (Fisher-Thompson & Burke, 1998) found that the behavior of adult experimenters could decrease, though not increase, third and fourth graders' cross-gendered activities and Fagot and Leinbach (1995) found that children in

"egalitarian" families showed less sex role knowledge at age 4 than children in more traditional families.

Interestingly, boys seem to be especially susceptible to acquisition of gender stereotypes through modeling. For example, Slaby and Frey (1975) found that boys were especially likely to attend to the behavior of same-gender models. There is also some evidence that boys are more likely than girls to be reproached for cross-gender behavior (Martin, 1993). In addition, social power has been associated with the effectiveness of modeling (Bandura et al., 1961), making the more socially privileged male role more likely to be acquired though modeling.

If boys tend to learn about gender by observing the behavior of same-sex models, then intergenerational IPV subtype transmission would be highly likely to occur when boys are exposed to modeling of gender-specific IPV. Studies that document differential effects of childhood exposure to IPV hint at a potential link between gender and observational learning of IPV. For example, Jankowski and colleagues (1999) found that children exposed to IPV were more likely to mimic the aggressive behavior of same-sex parents, such that college students who reported that they had witnessed a same-sex parent as the sole perpetrator of partner abuse were more likely to report having perpetrated physical aggression against a dating partner as compared to children who witnessed both parents engaging in partner abuse. Furthermore, Jankowski and colleagues found that witnessing the opposite-sex parent as a perpetrator of partner abuse was not predictive of perpetrating dating violence. This seems to suggest that learning in this case is indeed tied to gender for the child. However, Kwong and colleagues (2003) investigated self-reports of violence witnessed between parents and adult violent behavior

and did not find gender specific patterns of transmission (e.g., father to mother violence did not predict male perpetration or female victimization).

Thus, it seems that sub-types of IPV may be perpetuated by concurrent modeling of gender and aggressive behavior. Bussey and Bandura (1999) highlight that, through observation of behavior models, children learn rules which govern behavior, allowing for generalization to new behaviors governed by these rules. For boys exposed to gender-specific, male-to-female IPV, aggression toward women is specifically modeled and victim and perpetrator roles become part of a boy's understanding of gender. This is made especially likely because of a child's preference for same-gender models (Slaby & Frey, 1975), boys' apparent susceptibility to acquisition of gendered behavior (Martin, 1993), and the particular effectiveness of modeling when paired with social power (Bandura, Ross, & Ross, 1963). However, if boys are exposed to IPV which is specifically female-to-male, learning gender-specific aggression from modeling becomes far less likely because the aggression is not modeled by a same-gender actor nor is it paired with social power, both decreasing efficacy and reducing cues that would lead a child to abstract a gender-based rule governing behavior. For boys exposed to generalized IPV, no such gender-specificity or information about gender may be gleaned from observing modeled IPV.

Rationale

Research on the intergenerational transmission of IPV strongly supports the notion that children who witness IPV may themselves acquire the violent behavior via social learning. However, straightforward modeling of violent behavior does not account for the variety of behaviors seen in perpetrators of IPV. Descriptive research on the nature of adult IPV reveals that IPV may take the form of generalized violence, or may follow a gender-specific pattern. New studies seeking to fully account for acquisition of IPV via observational learning must account for not only the general increased likelihood of IPV, but also for how gender becomes tied to IPV in some cases and not in others.

For such a differentiation to occur, separate types of observational learning must occur. In the first case, the more traditional pattern occurs in which a child who witnesses violence not only mimics the violence, but generalizes it to new forms of violence (Bandura et al., 1961). In the second case, the learning of violent behavior and learning about gender are linked; modeling of gender, as described by social-cognitive theory, is linked with modeling of violent behavior. In the case of a child exposed to predominantly male-to-female IPV, the child's developing knowledge about gender incorporates the belief that women are the victims of violence and males the perpetrators. This association is made especially likely because of a child's preference for same-gender models (Slaby & Frey, 1975), boys' apparent susceptibility to acquisition of gendered behavior (Martin, 1993), and the particular effectiveness of modeling when paired with socially privileged roles (Bandura, Ross, & Ross, 1963). This second pattern would be most likely to take place when the model of violent behavior to which the child is exposed is of the gender-specific pattern, whereas the first, more generalized behavior, might be more likely to

occur when the child is exposed to the more generalized, non-gender-specific pattern or if the model for violent behavior was of the opposite gender. Thus, not only would a general risk of violence be transmitted intergenerationally, a gender-specific subtype would also be transmitted. The current study examined this theory.

In addition, the current study will address some of the weaknesses in the IPV literature. First, this study will address the need to study IPV perpetrated by both males and females. The majority of the research describing types of IPV is conducted with samples that are at least in part selected to contain violent males. Over-sampling of violent males is naturally called for to obtain sufficient variance in IPV to make research practically viable and to allow for reasonable comparisons between patriarchal terrorism and common couple violence. However, such sampling strategies cannot capture those couples in which the woman is more often the violent partner. For example, Graham-Kevan and Archer (2003) found that, when subjects specifically recruited from shelters were excluded from findings, both men and women showed fairly equivalent rates of "intimate terrorism" (in which violence is part of an overall control strategy). Other researchers have similarly documented equivalent rates of male-to-female and female-to male IPV (Straus, 1990; Straus, Gelles, & Steinmetz, 1980). Therefore, in a study sample not specifically intended to over-sample male-to female violence, one would expect that violence perpetrated predominantly by males against females and predominantly by females against males should occur at relatively equivalent rates. However, because much of the research on IPV does employ samples specifically selected for male-to-female IPV (e.g., samples recruited from shelters), I assert that female-to-male violence represents a prevalent and understudied phenomenon.

Second, most studies on the effects of IPV rely on self-reports of violent behavior. Reliance on self report for measurement of violence against women may be highly subject to social desirability bias, making it likely that males may underreport violence against women. While it is, of course, impossible (and unethical) to directly measure IPV in a laboratory setting, there are protocols for measuring proxies of aggression that may be employed. For example, Kirkpatirck, Waugh, Valencia, & Webster (2002) gave participants the opportunity to determine the amount of hot sauce allegedly required to be consumed by a confederate. Similarly, Buckley, Winkel, and Leary (2004) employed an experimental paradigm in which participants were allowed to select how aversive a stimulus to administer to a confederate posing as a participant. Such proxy measures of aggression might be employed to determine likelihood of an individual to aggress toward a male vs. female confederate. Such an experimental measure would also provide important cross-validation to self-reports of violent behavior.

Third, narrowly defining "witnessing of IPV" as only the witnessing of violence between the child's parents may obscure relationships between gender, childhood witnessing of IPV, and adult violent behavior. It is likely that children observe more IPV than has previously been reported. While estimates of prevalence typically indicate that approximately one quarter of children witness IPV between parents (McCloskey, Figueredo, & Koss, 1995; McCloskey & Walker, 2000; O'Brein, John, Margolin, & Erel, 1994), approximately three times as many people are either victims of IPV or know a victim of IPV (Saurage Research Inc., 2003, May), suggesting that children may observe far more IPV than between parents alone.

The current study addresses these weaknesses in the literature as follows. First, to address the possible under-sampling of exposure to female-to-male IPV and lack of measurement of IPV sub-type, a sample of male participants was asked to report on their childhood exposure to IPV and to describe the direction of the IPV (male to female, female to male, or bidirectional) in order to distinguish whether the exposure was generalized or gender-specific. The sample was not selected to include higher rates of any sub-types of IPV (either in terms of childhood exposure or adult perpetration). Second, to address over-reliance on self-report of violence against women, a laboratory proxy of aggression was employed, with the gender of the target for the aggression manipulated. Thus, participants were afforded the opportunity to engage in "aggression" toward the experimenter, who was male in half the cases and female in half the cases. Comparison of differential rates of aggression toward males and females across groups allowed for direct examination of a tendency to engage in gender-specific violence. Third, to address the possibility that including reports of only parent-to-parent violence under represents childhood exposure to IPV, participants were asked to report on *any* childhood exposure to IPV (either within or outside the home).

Childhood IPV exposure (CIPV) was expected to predict higher levels of adult IPV. Men exposed to CIPV perpetrated primarily by males were expected to have the highest rates of adult IPV, due to the effects of same-gender models (Slaby & Frey, 1975). It was expected that men with childhood IPV exposure (CIPV) who perpetrate IPV in their own adult romantic relationship will demonstrate one of two possible patterns. During childhood, when boys are exposed to IPV that is perpetrated equally by men and women ("bidirectional CIPV") or to IPV that is perpetrated primarily by women

("female-to-male CIPV"), modeling of violence is not linked to modeling of gender. Thus men who witnessed bidirectional or female-to-male IPV in childhood would show an increased likelihood to engage in the generalized pattern of IPV as well as violent behavior outside the romantic relationship, following the pattern predicted by traditional social learning theory in which aggressive behavior is both learned and generalized to new behaviors (Bandura, 1973; Bandura et al., 1961). However, during childhood, when boys are exposed to IPV that is perpetrated primarily by men against women ("male-to-female CIPV"), their developing knowledge of and beliefs about gender are altered, such that hostility toward females becomes part of male gender identity and one would expect to observe an increased likelihood of denigration of the female gender and association of this gender with victim status (e.g., via rape myth acceptance and endorsement of negative stereotypes about women). Furthermore, when violence toward females leads to the development of hostile attitudes towards women, these altered beliefs about gender would, in turn, be expected to predict an increase in aggression and violence directed specifically toward women, as would be seen in a tendency to engage in male-to-female IPV or sexual assault of women as well as a tendency to behave more aggressively to females vs. males in experimental paradigms.

Hypotheses

Based upon the literature review, the following hypotheses are predicted:

Overall hypotheses

Hypothesis 1: Participants exposed to CIPV will report higher levels of adult IPV as compared to non-exposed participants. Boys exposed to CIPV perpetrated predominantly by males were expected to report the highest levels of adult IPV.

Hypothesis 2: Male-to-female CIPV participants will display higher levels of indicators of stereotypical attitudes about gender (including negative/hostile attitudes toward women) as compared to bidirectional CIPV participants, female-to-male CIPV participants, and those participants not exposed to IPV in childhood (no CIPV participants). Scores for these latter two groups are not expected to differ.

Hypothesis 3: Childhood IPV exposure classification is expected to predict level of aggression in the laboratory. The male-to-female, bidirectional, and female-to-male CIPV groups are all expected to display higher laboratory aggression scores compared to the no CIPV group.

Hypothesis 4: The relationship between CIPV classification and aggression described in hypothesis 2 is expected to be moderated by gender such that greater aggression will be displayed toward female experimenters, but only for the male-to-female CIPV group.

Within-groups hypotheses

Hypothesis 5: For the bidirectional and female-to-male CIPV groups, generally elevated levels of violence are expected to be seen on all measures of violence as amount of childhood CIPV increases, and measures of adult aggressive behavior should load on a single latent variable. This model (see Figure 1) should function well for the bidirectional and female-to-male CIPV groups and poorly for the male-to-female CIPV group.

Hypothesis 6: For the male-to-female CIPV group, CIPV is expected to be predictive of greater gendered adult violent behavior (i.e. violence against women) as measured by self-reported DV perpetration and sexually coercive behavior. This relationship is expected to be mediated by the degree to which the child learns

stereotypical attitudes about gender, as measured by higher levels of hypergender identity, hostile sexism, and endorsement of rape myths. This model (see Figure 2) should function well for the male-to-female CIPV group and poorly for the bidirectional and female-to-male CIPV groups.

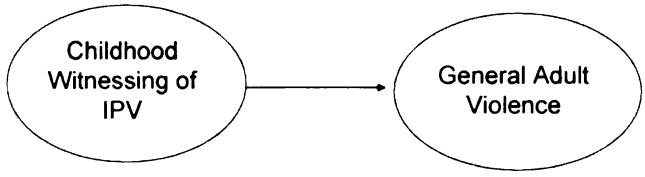

Figure 1. Hypothesis 5: Expected relationships among variables for the participants in the bidirectional and female-to-male CIPV groups.

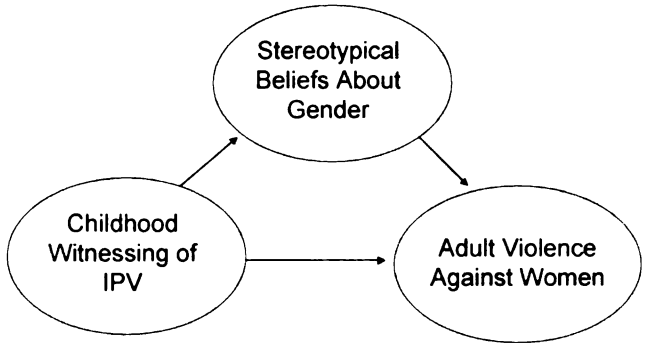

Figure 2. Hypothesis 6: Expected relationships among variables for participants in the male-to-female CIPV group.

Method

Participants

Participants were 723 male undergraduates enrolled in psychology courses at Michigan State University. To be included in the sample, participants must have had at least one heterosexual romantic relationship, lasting for a minimum of one month.[1] At the time of data collection, most participants described their relationship status as either "boyfriend/girlfriend" (46.5%) or "single" (51.7%), with a small number of participants indicating they were "married" (1.0%), "divorced" (0.1%), or "cohabiting" (0.7%). Participants ranged in age from 17 to 34 years (M=19.74, SD=1.64), with the vast majority of participants (95%) falling between the ages of 18 and 22 years. Participants reported their race and/or ethnicity as 79.0% White/Caucasian, 7.3% Black/African-American, 7.1% Asian-American or Pacific Islander, 2.9 % Bi-/Multi-racial, 1.5% Hispanic or Latino, 0.3% Native American or Alaskan Native, and 1.9% another race/ethnicity. This distribution is similar to the racial and ethic makeup of undergraduate males at Michigan State University which was 82.9% Caucasian, 7.2% African-American, 6.1% Asian-American, 0.7% Native American, and 3.1% Hispanic (as indicated for the 2005-2006 school year by the MSU Office of Planning and Budgets; information available at http://opbweb.opb.msu.edu/ InfoPages/MenuPPSFrame.htm). With regard to annual family income, 5.5% of participants reported family income under $19,000; 5.3% indicated family come between $19,000 to $30,000; 5.3% indicated family income between $30,000 and $50,000; 16.5 % reported income between $50,000 and $75,000; 23.9% reported income between $75,000 and $100,000; 31.3% reported

[1] This minimum criterion for reporting on a romantic relationship is adapted from Magdol, Moffitt, Caspi, Newman, Fagan, & Silva (1997), who employed this standard in their reporting of partner violence in 21-year-olds participating in a longitudinal study in Dunnedin, New Zealand.

family income between $100,000-$200,000; and 10.8% reported family income over $200,000.

Measures

Demographics

Participants completed a short demographic questionnaire. The questionnaire asked participants to report their race/ethnicity, an estimate of their family income (parents' income for those supported by parents), age, and marital/relationship status. Please see Appendix A for a copy of the measure.

Measures of Childhood Exposure to IPV

Retrospective Severity of Violence Against Partners (RSVAP; adapted from Marshall, 1992). This scale is adapted from the Severity of Violence Against Women Scales (Marshall, 1992). The scale consists of 46 items describing violent behaviors a person might experience from a romantic partner. For each item, participants rated how often during childhood they saw the behavior done to an adult woman by a male romantic partner as well as how often they saw the behavior done to a man by his female romantic partner. There are nine categories of abuse and threats: symbolic violence, threats of mild violence, threats of minor violence, threats of moderate violence, threats of serious violence, mild violence, minor violence, moderate violence, serious violence, and sexual violence. Examples of items include "threw, smashed or broke an object" and "threatened a romantic partner with a knife or gun." Respondents were asked to rate how often they observed each item on a 4-point scale ranging from 0 ("Never") to 3 ("Many Times"). These items are followed by a brief questionnaire asking participants to indicate their

relationship to the perpetrator and victim and how often they typically saw the male or female doing the actions described. Please see Appendix B for a copy of the measure.

Individual item scores were summed to obtain two total scores for both observed male-to-female violence (MTOF) and observed female-to-male violence (FTOM). In addition, two scores were created for male-to-female violence and female-to-male violence. A less severe violence score (MRSVAPA for male-to-female violence and FRSVAPA for female-to-male violence) was created which summed items describing symbolic violence (e.g., "hit or kicked a wall, door or furniture"), and threats of mild physical violence (e.g., "made threatening gestures or faces at a romantic partner"). A severe violence score (MRSVAPB for male-to-female violence and FRSVAPB for female-to-male violence) was created which summed items describing witnessed physical violence (e.g., "punched a romantic partner") or threats of moderate or severe physical violence (e.g., "threatened a romantic partner with a weapon"). Coefficient alpha for overall witnessed male-to-female IPV (MTOF) was .94, with subscale coefficient alphas of .82 for MRSVAPA and .94 for MRSVAPB. Coefficient alpha for overall female-to-male IPV (FTOM) was .94, with subscale coefficient alphas of .81 for FRSVAPA and .94 for FRSVAPB.

Measures of Stereotypical Attitudes About Gender

Hyper-gender ideology scale (Hamburger, Hogben, McGowan, & Dawson, 1996). This is a 57-item scale designed to measure adherence to extremely stereotypic gender beliefs. The HGIS was developed from two existing scales, Mosher & Sirkins' (1984) Hypermasculinity Scale and Murnen & Byrne's (1991) Hyperfeminity Scale. Examples of items include "women instinctively try to manipulate men" and "a true man

knows how to command others." Some items are reverse scored (e.g., "no wife is obliged to provide sex for anybody, even her husband"). Though the authors demonstrated a five-factor solution among the items, the fit indices for the five factor solution was not significantly different from a one-factor solution, thus the authors recommended use of the scale as a unidimensional measure. Participants are asked to rate their agreement or disagreement with each item on a 6-point Likert-style scale raging from 1 ("strongly disagree") to 6 ("strongly agree"). Scores are recoded to range from 0 to 5, then all item scores are summed to obtain a total score. Hamburger and colleagues (1996) report a coefficient alpha of .96 for the scale in a sample of 235 college students. Coefficient alpha for the present study was .93. Please see Appendix C for a copy of the measure.

Hostile Sexism Subscale of the Ambivalent Sexism Inventory (Glick & Fiske, 1996). The Ambivalent Sexism Inventory is a measure designed to assess sexist beliefs. The current study includes a subset of questions, those that were designed to assess hostile sexism. Samples of items include "Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for equality" and "Once a woman gets a man to commit to her, she usually tries to put him on a tight leash." Participants are asked to rate the degree to which they agree or disagree with statements on a scale ranging from 0 ("disagree strongly") to 5 ("agree strongly"). Some items are reverse scored. Individual item scores are summed to obtain an overall score. Glick and Fiske (1996) report coefficient alphas for Hostile Sexism ranging from .82 to .92 across six studies. Coefficient alpha for the present study was .86. Please See Appendix D for a copy of the measure.

Rape Myth Acceptance Scale (Burt, 1980). This 19-item scale measures acceptance of myths regarding rape. Items take one of three forms. In the first, participants rate their agreement or disagreement with items on a 7-point scale ranging from "strongly disagree" to "strongly agree." For example, "A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex." In the second form, items are rated on a 5-point scale ranging from "almost all" to "about half" to "almost none." For example, "What percentage of women who report a rape would you say are lying because they are angry and want to get back at the man they accuse?" In the third form, items which ask a participant to indicate how likely they would be to believe a person claiming they were raped are rated on a 5-point scale ranging from "always" to "almost half" to "never." To ensure that items scored on a 7-point scale are not weighted more heavily than items scored on a 5-point scale, individual item scores are recoded as follows. Items scored on a 7-point scale are recoded such that scores range from "0" (least agreement with rape myths) to "6" (most agreement with rape myths). Items scored on a 5-point scale are recoded to a scale of "0" (least agreement with rape myths) to "1.5" to "3" to "4.5" to "6" (most agreement with rape myths). Scores on individual items are summed to obtain an overall score. Burt (1980) reports an alpha of .875 for the full scale. Coefficient alpha for the present study was .87. Please see Appendix E for a copy of the measure.

Self-Report Measures of Adult Aggressive Behavior

Generality of Violence Questionnaire (Holtzworth-Munroe et al., 2000). This measure is designed to assess violent behavior in romantic relationships. Participants are asked to report on violent behavior in 8 possible situations: gang/group, family (not

romantic partners or children), male friends, female friends (not romantic partners), co-workers, acquaintances, stranger, friends, and "other." For each of the categories, participants are asked if they engaged in 14 violent behaviors (those listed on the CTS). Participants rate how many times they have ever engaged in the behavior on a 7-point scale ranging from "never" to "more than 20 times." Item scores were summed to obtain an overall score. Holtzwoth-Munroe and colleagues (2000) report coefficient alpha = .90 for violence within the past year and .94 for violence as an adult. For the current study, two separate totals were used in the analyses. The total of all items indicating violence toward an ex-wife or ex-girlfriend was used as an indicator of adult IPV (GVQEXES). Coefficient alpha for GVQEXES in the present study was .81. The sum total of all other items was used as an indicator of general violent behavior not directed towards romantic partners (GVQSUM). Coefficient alpha for GVQSUM in the present study was .97. Please see Appendix F for a copy of the measure.

Self-report of gendered violence (including DV, sexual assault, sexual harassment)

Sexual Experiences Survey. This measure is designed to asses whether participants engaged in any of several coercive sexual behaviors. The original versions of the measure (Koss & Oros, 1982) had been criticized for possibly ambiguous interpretations of items (Ross & Allgeier, 1996). For this reason, as well as at the request of the original author, a more recent revision with items reworded for clarity is used in the present study (Koss, 2004, personal communication). In the current version, participants are asked to respond to whether they engaged in various sexual acts (e.g., "I had oral sex with someone or had someone perform oral sex on me") as a result of five possible methods of coercion (e.g., "I used strong arguments and continual pressure or

showed displeasure (got angry)" or "I used some degree of physical force such as holding someone down with my body weight or pinning his or her arms"). Respondents indicate how many times (on a scale ranging from "0" to "3 or more") they used each method of coercion for separate acts. Respondents indicate the number of times they enacted these behaviors both in the past 12 months, and since age 14. To obtain lifetime prevalence of sexual coercion, scores for engaging in acts since age 14 are summed (SESL). Koss, Gidycz, & Winiewski (1987) report an internal consistency of .89 for men on the original version as well as a test-retest agreement rate of 93%. Coefficient alpha for lifetime prevalence items in the current study was .90. Please see Appendix G for a copy of the measure.

Revised Severity of Violence Against Women Scales (RSVAWS; adapted from Marshall, 1992). The original SVAWS (Marshall, 1992) is a 46-item questionnaire assessing violent behavior and threats a woman has experienced from her partner. There are nine categories of abuse and threats: symbolic violence, threats of mild violence, threats of minor violence, threats of moderate violence, threats of serious violence, mild violence, minor violence, moderate violence, serious violence, and sexual violence Examples of items include "destroyed something belonging to you," "punched you," and "demanded sex whether you wanted to or not." Respondents rate their experiences of abuse on a 4-point scale ranging from "Never" to "Many Times." Marshall (1992) reports coefficient alphas among a community sample ranging from a low of .86 for symbolic violence to a high of .96 for mild and serious violence. These individual item scores are then summed to obtain an overall score. The measure used for this study was revised to ask participants to rate both the number of times they perpetrated each behavior with

partners and the number of times partners perpetrated each behavior with the participants. For example, the item "destroyed something belonging to you" was reworded to "destroyed something belonging to a romantic partner." Total scores can be obtained by converting violence-to-partner item responses to a numerical score ranging from 0 ("Never") to 3 ("Many Times") and summing across items. As with the RSVAP (see above), two scores were created for adult male-to-female violence and adult female-to-male violence. A less severe violence score (MRSVAWSA for male-to-female violence and FRSVAWSA for female-to-male violence) was created which summed items describing symbolic violence (e.g., "hit or kicked a wall, door or furniture") and threats of mild physical violence (e.g., "destroyed something belonging to a romantic partner"). A severe violence score (MRSVAWSB for male-to-female violence and FRSVAPWS for female-to-male violence) was created which summed items describing physical violence (e.g., "punched a romantic partner") or threats of moderate or severe physical violence (e.g., "threatened a romantic partner with a weapon"). For the current study, only a total score for adult violence toward a female (ADMTOF; the sum of MSRVAWSA and MRSVAWSB) was needed for analyses. Coefficient alpha for this scale was .90. At the end of the questionnaire, participants were asked to indicate whether the romantic partner(s) in consideration were male or female. Scores related to violence against male romantic partners were fixed to zero. Please see Appendix H for a copy of the measure.

Laboratory Measure of Aggressive Behavior

Laboratory Proxy of Aggressive Behavior. This proxy measure of aggressive behavior is adapted from Buckley and colleagues (2004). While in-lab participants are completed questionnaire packets, they were called for by subject number and taken by a

female experimenter into a second room where a confederate was waiting, seated at a table with an empty chair (for the participant) set to face the confederate. (Gender of this confederate was randomly assigned prior to the experiment.) A single tape player with two headsets was on the table between the two along with an array of seven blank audiotapes with labels ranging from "extremely aversive" to "extremely pleasant." The experimenter then called the participant's attention to the confederate by stating, "this is ___ (confederate name)." The participant first completed a distracter task in which he listened to four 30-second musical samples taken from different genres (jazz, classical, rap, and "alternative") and then was asked to respond to three statements about each musical sample on a 7-point scale ranging from "strongly agree" to "strongly disagree." These three statements will be "I like this particular song," "I like this type of music in general," and "My friends like this type of music in general." The confederate pretended to complete the listening task. The experimenter then said "Before you got here, we flipped a coin and ___(confederate name) was picked to do the listening task. To randomize the piece he/she listens to, we would like you to pick one of these seven tapes to be played. Please feel free to select from the full range of tapes, as all tapes must be administered eventually." The experimenter displayed seven audio tapes with labels ranging from "extremely pleasant" to "extremely aversive." Participants indicated their selection by circling a response on a scale ranging from 1 (extremely pleasant) to 7 (extremely aversive). This number was used as a measure of aggression toward the confederate. Participants then returned to the first room to complete questionnaire packets. Please see Appendix I for a copy of the measure.

At the end of the experiment, participants were asked to complete a questionnaire which asked them to first circle "yes" or "no" in response to the question "Do you believe you know the true purpose of today's experiment?" and then if they answered "yes" to "briefly describe what you believe the true purpose of the experiment to be." This question was intended to assess the validity of the laboratory proxy of aggressive behavior, as it was intended that participants not be aware that aggressiveness was being assessed in this portion. Only 2 participants (<1 %) indicated that they understood their response to the confederate in the laboratory aggression proxy to be the purpose of the study. Other responses to this question could be classified as follows. One hundred and fifty-five participants (32.1%) answered that they did not know the purpose of the experiment. Two hundred and thirty-four participants (48.4%) indicated that they believed the experiment to measure how musical preferences were related to behavior (e.g., "to find the connection between relational aggression and musical tastes"). Twenty-one participants (4.3%) indicated that they believed the study to be broadly related to domestic violence (e.g., "to see if relationships are abusive"). Fifteen participants (3.1%) indicated that they believed the study to be broadly related to male/female relationships (e.g., "analyzing male vs. female thoughts and actions towards the opposite sex"). Nineteen participants (3.9%) identified the study as assessing the relationship between childhood exposure to violence and adult violent behavior ("e.g., measuring correlation between childhood viewing of romantic violence and later the child committing the violent acts"). Fourteen participants (2.9%) indicated that the study was broadly related to childhood experiences and adult behavior, though not specifically violence (e.g., relationship between role models and the ones they influence, specifically family." Five

participants (1.0%) indicated that they believed the study to be assessing the prevalence of violent behavior (e.g., "to find out how much abuse is in college relationships"). Five participants (1.0%) indicated they believed the study assessed a relationship between some demographic variable and behavior "to see if sex or race has anything to do with sexual violence." Six participants (1.2%) indicated the purpose of the study to be related to various other topics (e.g., "stereotypes of gay men"). Seven responses (1.4%) were left blank. Relationships between responses to this question and other questionnaire responses could not be statistically assessed because these responses were not linked to subject number to preserve anonymity. However, due to the extremely low proportion of participants who correctly identified participants' selection of audiotape for the confederate as the purpose of the experiment, the validity of the experimental proxy of aggressive behavior does not appear to have been compromised.

Procedures

Participants were recruited through the MSU "subject pool" and received course credit for participation in the experiment. Data collection was conducted in two phases. In the first phase, participants enrolled in the experiment through an on-line scheduling system and came to the laboratory to fill out questionnaires and complete a laboratory protocol (see below). This method of data collection yielded a sufficient number of cases (n=483) for adequate statistical power for analyses including the laboratory protocol (see below). However, additional cases were required for analyses of the questionnaire data. For this reason, an additional 240 participants completed the questionnaire-only portion on-line. Comparing study variables across method of data collection (using ANOVA for continuous variables and chi-square for categorical variables) indicated few significant differences (see Table 1). For those variables where significant differences did occur, the type of data collection accounted for only a small proportion of variance (η_p=.007 for age, η_p=.006 for RRMAS; and η_p=.022 for SESL).

For in-lab data collection, experimenters underwent extensive training for reliability of administration. This training included practice administrations of the experimental protocol while being observed by the study author, as well as live observations of actual first administrations (conducted through a one-way mirror). Spot-checks on administration throughout the data collection period ensured continuing adherence to experiment protocols. The experimental protocol was fully described in a manual, which experimenters referenced during administration (see Appendix J).

Table 1

Comparisons of Participant Responses Across Data Source (In-person vs. On-line)

	In-person	*On-line*
Age*	*M*=19.84 *SD*=1.80	*M*=19.56 *SD*=1.22
Annual Family Income	5.2% Under $19,000	6.3% Under $19,000
	5.8% $19000-30000	4.2% $19000-30000
	6.8% $30,000-50,000	6.7% $30,000-50,000
	18.2% $50,000-75,000	12.9% $50,000-75,000
	23.8% $75,000-100,000	24.2% $75,000-100,000
	29.2% $100,000-200,000	35.4% $100,000-200,000
	11.0% over $200,000	10.4% over $200,000
Ethnicity	78.7% White/Caucasian	79.6% White/Caucasian
	7.5% Black/African-American	7.1% Black/African-American
	7.9% Asian/Pacific Islander	5.4% Asian/Pacific Islander
	1.7% Hispanic/Latino	1.3% Hispanic/Latino
	.4% Native American/Alaskan Native	.0% Native American/ Alaskan Native
	2.7% Bi-/Multi-racial	3.3% Bi-/Multi-racial
	1.2% Other	3.3% Other
Relationship Status	1.2% Married	.4% Married
	.2% Divorced	.0% Divorced
	.2% Cohabiting	1.7% Cohabiting
	48.2% Boyfriend	42.9% Boyfriend
	50.1% Single	55.0% Single
MRSVAPA	*M*=6.56 *SD*=5.35	*M*=6.14 *SD*=5.05
MRSVAPB	*M*=6.70 *SD*=10.71	*M*=7.48 *SD*=11.72
FRSVAPA	*M*=5.61 *SD*=4.89	*M*=5.60 *SD*=4.96
FRSVAPB	*M*=7.15 *SD*=11.10	*M*=8.09 *SD*=12.61
HGIS	*M*=97.75 *SD*=32.32	*M*=100.91 *SD*=34.63
HS	*M*=27.14 *SD*=9.53	*M*=27.10 *SD*=8.87
RRMAS*	*M*=27.12 *SD*=12.91	*M*=29.33 *SD*=15.93
GVQEXES	*M*=8.41 *SD*=8.09	*M*=7.93 *SD*=10.42
GVQSUM	*M*=115.10 *SD*=74.22	*M*=110.15 *SD*=84.16
SESL*	*M*=4.55 *SD*=8.08	*M*=8.10 *SD*=15.50
Adult IPV	*M*=6.74 *SD*=8.53	*M*=6.48 *SD*=13.53

* $p<.05$

For those participants who completed the in-lab procedure, participants signed up for appointment times via the subject pool system. Participants completed experiments in groups of up to 10 at a time. Upon arriving at their appointment, participants were greeted by a male experimenter and brought into a room with a sign on the door reading "Session B." Once all participants arrived, they signed in to receive credit on a sheet of paper which was kept separate from data and could not be linked to individual responses.

Next, the experimenter gave the following explanation of the experiment: "This is an experiment that examines musical preferences and their relationship to aggressive behavior. You will be asked to complete two tasks today--answering some questionnaires and completing a listening task. The first thing you will be asked to do is complete some questionnaires that will ask about factors that may influence your musical tastes. Please be assured that all responses will be kept confidential and that your name or other identifying information will not be connected with your responses. For this reason, we ask that you do not write any identifying information, such as your name or student ID, on the packet of questionnaires that I will give you. You may take as much time as you like to fill out the questionnaires. When you are done, please place your packet in this box. [Indicate the box at the front of the room.] During the time you are answering the questionnaires, I will bring you one-by-one to another room where you and another participant from the other group being tested at the same time as this group will complete a musical preferences listening task. While you are filling out the questionnaire, you will see a number that will be used for your data at the top of each page; I will call this number to ask you to do the listening task. Using numbers allows us to prevent identifying information such as your name or student number to be connected to the

confidential information you provide. You will be able to finish answering the questions when you return. Before we begin, I will distribute consent forms. Please take time to read through these forms. If you have any questions, please feel free to ask. When you have completed your consent forms, please return them to me." The experimenter then distributed consent forms (see Appendix K), answered any questions, and collected signed forms. The experimenter then distributed packets of questionnaires to participants. Each page of the packet was stamped with a subject number, and no linking file was created for participant names and subject numbers.

Participants then completed the questionnaires and laboratory aggression proxy. The first questionnaire was a distracter task in which participants were asked to rank their preferences of 7 musical genres (classical, jazz, rap, R&B, alternative, oldies, world music) as well as the musical preferences of their most recent romantic partner (see Appendix L). This questionnaire was followed by the experimental questionnaires described above, beginning with demographic information. Participants were randomly called (based on random selection from the list of subject numbers used in a given testing session) to participate in the listening task. A female experimenter entered the first room and called for subject numbers to participate in the laboratory aggression proxy. This experimenter escorted participants to a second room, with a sign indicating "Session C" on the door, where the confederate waited. Random assignment of confederate gender was achieved by flipping a coin to determine whether odd or even numbered sessions were assigned to male or female experimenters. Administration of the laboratory aggression task followed the procedures described above. At the end of the experiment, all participants returned to the first room.

The first experimenter then debriefed the participants, describing the purpose of the study and the use of deception. Participants were also asked not to divulge the use of deception to other students, as other students might become participants at a future time. Participants were given a written description of the project and use of deception for their records. Please see Appendix M for the debriefing document given to participants. No participants indicated adverse responses to the use of deception or study content.

For those participants who only completed the on-line portion of the experiment, all portions of the experiment were self-administered. Participants signed up on-line via the subject-pool website and were immediately directed to the consent form (see Appendix N for on-line consent) after enrollment. Participants were required to indicate that they had read the consent and met eligibility requirements before proceeding. Participants then proceeded to answer all questions. Items on-line were presented in the same order as in the in-lab questionnaire packet, including the initial distracter questionnaire. Following completion of all questions, participants read a debriefing form that described the use of deception and reason for use of deception (see Appendix O for on-line debriefing document).

Results

Data Preparation & Missing Data

Data were cleaned and prepared for analysis as follows. For data collected in person, data were entered into SPSS 12.0 by undergraduate research assistants. All packet data were then cleaned by the study author. Data cleaning involved checking all variables for out of range values and then checking any out of range values against the original data. Following data cleaning, all variables were then rechecked to ensure no out of range values existed. A random sample of approximately 20% of packets (n=99) was entered into a verification database by an undergraduate research assistant with considerable prior experience in data entry. Entries in the verification database were then compared to the original database which was found to be in agreement over 98.9% of the time. Confederate gender for the laboratory aggression proxy was verified for all subjects, as this information was intended to be recorded without any measurement error. For data collected on-line, there was no need to verify accurate data entry as actual participant entries were recorded automatically. However, invalid cases needed to be removed from the dataset. The original dataset downloaded included 303 cases. Cases were cut from this dataset if more than 10% of data were missing (n=31) or participant gender was listed as female (n=24) or both were true (n=8). This resulted in an N=240 for online data.

Once all data were merged to a single data file, variables to be used were calculated. If an individual scale was missing only a few items (typically because a single item was apparently accidentally skipped), the scale total was prorated. In a small number of instances (0.37%), an entire scale score was missing. Two different methods of data

imputation were used to address this matter. First, continuous data (i.e. sum scores) were imputed using the expectation-maximization (EM) algorithm in SYSTAT 11.0. This method of imputation first imputes predicted scores (based on regressing missing variables on the existing variables for a particular case) and then submits the full imputed dataset for maximum likelihood estimation, repeating these steps until a stable solution is reached (Kline, 2005). This method will occasionally estimate a value which is outside the possible range for the variable. In this dataset, eight such incidents occurred. In all cases, a negative number was imputed where values below zero were not possible; all such values were replaced with a zero. Because this method uses regression and is therefore most appropriate for continuous data, categorical data (e.g. demographic information such as ethnicity) were imputed using the "hot-deck" method available in the PRELIS program of LISREL 8.72 (Jöreskog & Sörbom, 2005, April). This method of imputation replaces missing data with the score for that variable available from the cases with the most similar profile on a user-defined set of matching variables. Because complete records are needed to create matches, this method of imputation could not be used for the full dataset. For the current study, categorical data were matched based on the complete, imputed continuous data.

Because participants were randomly assigned to a confederate gender condition for the laboratory aggression proxy, it was not expected that missing data could be meaningfully imputed based on other study variables. Therefore, data related to the laboratory aggression proxy were not imputed (n=20). In a small number of cases either the confederate gender was not recorded (n=18) or the participant did not circle an

answer (n=2). These cases were excluded from analyses involving the laboratory aggression proxy (hypotheses 3 & 4, below).

A number of methods were employed to assure that missing data would not be expected to differ significantly from extant data. First, descriptive statistics for quantitative variables before and after imputation were compared to ensure that ranges of values did not change and that no major changes could be seen in variable means and standard deviations. Descriptive statistics for study variables before and after imputation are shown in Table 2, below. Next, a variable was created that differentiated cases with missing data from those without missing data. Examination of this variable indicated that missing data were spread across 21 cases. Using this dichotomous variable, cases with missing and non-missing data were compared to indicate that missing vs. non-missing data was not associated with participant age (r<.01, *ns*), ethnicity (χ^2(6,N=723)==3.32, *ns*), family income (χ^2(6,N=723)=4.43, *ns*), relationship status(χ^2(4,N=723)=.62, *ns*), or type of CIPV exposure (χ^2(3,N=723)=2.60, *ns*).

Creation of CIPV Groups

Scores on the RSVAP were used to place participants into one of four possible groups of childhood IPV (CIPV) exposure. Because items on the less severe violence subscale of the RSVAP might not typically be considered to represent instances of IPV (e.g., "shook a finger at a romantic partner"), assignment to groups was made using scores on the severe violence subscale for both male (MRSVAPB) and female (FRSVAPB) perpetration. The severe violence subscale contained items that described physical violence (e.g., "punched a romantic partner"), threats of moderate physical violence (e.g., "threatened to harm or damage things a romantic partner care about"), and

threats of severe physical violence (e.g., "threatened a romantic partner with a weapon"). The groups created were a non-exposed group (no CIPV), a group in which the violence witnessed was predominately perpetrated by males against female romantic partners (male-to-female CIPV), a group in which the violence witnessed was predominantly perpetrated by females against male romantic partners (female-to-male CIPV), and a group in which the violence was perpetrated by males and females at roughly equivalent rates (bidirectional CIPV). Discriminations into groups were made as follows. If both MRSVAPB and FRSVAPB scores rounded to 0, participants were placed in the no CIPV group (n=216). Then, a discrepancy score was calculated which subtracted FRSVAPB from MRSVAPB. The standard deviation of this discrepancy was found to be 5.23. Participants whose MRSVAPB score was at least one standard

Table 2

Descriptive Statistics for Study Variables Before and After Imputation

	Before Imputation			After Imputation			
	Range	Mean	SD	Range	Mean	SD	Theoretical Range
MRSVAPA	0-24	6.41	5.25	0-24	6.42	5.25	0-24
MRSVAPB	0-65	6.95	11.05	0-65	6.96	11.05	0-114
FRSVAPA	0-22	5.61	4.91	0-22	5.61	4.91	0-24
FRSVAPB	0-74	7.47	11.63	0-74	7.46	11.62	0-114
HGIS	17-217	98.69	33.00	17-217	98.80	33.12	0-285
HS	0-55	27.11	9.31	0-55	27.13	9.31	0-55
RRMAS	0-80.5	27.85	14.02	0-80.5	27.85	14.02	0-114
GVQEXES	0-52	8.22	8.91	0-52	8.25	8.93	0-84
GVQSUM	0-467	112.54	77.24	0-467	113.46	77.64	0-756
SESL	0-120	5.75	11.24	0-120	5.73	11.22	0-120
MRSVAWSA	0-24	3.03	3.68	0-24	3.04	3.69	0-24
MRSVAWSB	0-84	3.57	7.72	0-84	3.61	7.84	0-114
FRSVAWSA	0-24	3.00	4.07	0-24	3.01	4.08	0-24
FRSVAWSB	0-86	4.90	9.56	0-86	4.94	9.65	0-114

deviation (5.23 points) higher than their FRSVAPB score were placed in the unidirectional male-to-female CIPV group (n=103). Participants whose FRSVAPB score was at least one standard deviation higher than their MRSVAPB score were placed in the unidirectional female-to-male CIPV group (n=154). Participants whose MRSVAPB score and FRSVAPB scores were within one standard deviation of each other were placed in the bidirectional CIPV group (n=250). Comparisons of mean levels of total male-to-female (MTOF) and total female-to-male IPV (FTOM) to which participants were exposed across groups revealed significant group differences for both male-to-female [$F(3,719)=102.26, p<.01$] and female-to-male IPV [$F(3,719)=125.71, p<.01$]. Follow-up Games-Howell multiple comparisons, which do not require an assumption of equal variances, revealed that all inter-groups differences were significant, with the exception of amount of female-to-male IPV witnessed in the bidirectional CIPV group vs. the male-to-female CIPV group. CIPV group means and standard deviations are shown in Table 3, below.

It should be noted that these classifications do not necessarily represent inter-parental violence witnessed, as participants were asked to report on all IPV witnessed in childhood. However, in the majority of cases, participants did appear to be fairly close to the perpetrator of violence. Responses indicate that 58.2% of participants had daily contact with the adult men who perpetrated violence, and 59.6% of participants had daily contact with the adult women who perpetrated violence.

Table 3

Group Means (and Standard Deviations) for Amount of Total (Severe and Less-Severe) CIPV Witnessed

	Male-to-female IPV witnessed	Female-to-male IPV witnessed
No CIPV	2.72 (2.70)	2.18 (2.36)
Male-to-female CIPV	26.61 (16.17)	15.90 (14.61)
Female-to-male CIPV	19.62 (15.80)	27.46 (16.73)
Bidirectional CIPV	13.32 (13.79)	12.46 (13.53)

Hypothesis 1

To investigate whether intergenerational transmission of IPV was evident in the sample, a one-way ANOVA was calculated using SPSS 12.0 to determine whether mean scores for perpetration of adult IPV differed across CIPV groups. The overall ANOVA (Table 4) revealed significant group differences, $F(3,719)=14.41$, $p < .01$. Follow-up Games-Howell multiple comparisons revealed that all three CIPV groups had significantly higher adult IPV scores as compared to the no CIPV control group (all $p < .01$; see Table 5 below for cell means and standard deviations). Mean scores did not differ significantly among the three CIPV groups.

Table 4

Analysis of Variance for Adult IPV Scores

Source	*df*	*MSE*	*F*	η	*p*
Between CIPV Groups	3*	1490.44	14.41	.30	.000
Within CIPV Groups	719	103.47			
Total	722				

* R^2 = .057 (Adjusted R^2 = .053)

Table 5

CIPV Group Means and Standard Deviations for Adult IPV

CIPV Group	Mean	SD
No CIPV	3.11	5.07
Male-to-female CIPV	8.60	11.68
Female-to-male CIPV	9.57	14.23
Bidirectional CIPV	7.11	9.81

Hypothesis 2

A MANOVA was conducted using SPSS 12.0 to determine whether reported levels of attitudes about gender differed by CIPV group (see Table 6). The overall omnibus test of CIPV group differences was significant, Wilks Lambda= .96, $p < .01$. Games-Howell multiple comparisons revealed a somewhat consistent pattern of differences across indicators. For hypergender identity and rape myth acceptance, scores for both the unidirectional female-to-male and bidirectional groups were significantly higher than scores for the no childhood IPV group (all $p < .01$; see Table 7 below for cell

means and standard deviations). For hostile sexism, only the unidirectional female-to-male group had a significantly higher score than the no CIPV group. No other significant differences emerged.

Table 6

Multivariate Analysis of Variance for Indicators of Stereotypical Attitudes About Gender

Source	Dependent Variable	Type III SS	*df*	*MSE*	*F*	η	*p*
CIPV Group	Hypergender Identity Scale	23563.31*	3	7854.44	7.35	.03	.000
	Hostile Sexism	1141.30**	3	380.43	4.45	.02	.004
	Rape Myth Acceptance Scale	3501.69***	3	1167.23	6.07	.02	.000
Error	Hypergender Identity Scale	768230.08	719	1068.47			
	Hostile Sexism	61424.52	719	85.43			
	Rape Myth Acceptance Scale	138319.59	719	192.38			
Total	Hypergender Identity Scale	791793.39	722				
	Hostile Sexism	62565.81	722				
	Rape Myth Acceptance Scale	141821.28	722				

*R^2 = .030 (Adjusted R^2 = .026), ** R^2 = .018 (Adjusted R^2 = .014), *** R^2 = .025 (Adjusted R^2 = .021)

Table 7

Group Means and Standard Deviations for Indicators of Stereotypical Attitudes About Gender

	Hypergender Identity Scale		Hostile Sexism		Rape Myth Acceptance Scale	
CIPV Group	Mean	SD	Mean	SD	Mean	SD
No CIPV	90.91	32.27	25.37	9.02	24.68	13.55
Male-to-female CIPV	96.42	33.93	27.61	9.68	28.53	14.99
Female-to-male CIPV	104.33	31.42	28.79	8.81	30.55	14.15
Bidirectional CIPV	103.19	33.29	27.43	9.51	27.85	14.02

Hypotheses 3 & 4

A four-by-two between subjects ANOVA (Table 8) was conducted to examine the effects of confederate gender and CIPV group on aggression in the laboratory setting. (See Table 9 below for cell means and standard deviations.) The ANOVA revealed a significant main effect of confederate gender [$F(1,455)=10.65$, $p<.01$], such that participants tended to display more aggression toward male confederates ($M=3.83$, $SD=1.89$) as compared to female confederates ($M=3.33$, $SD=1.77$). No significant main effect of CIPV group was found, $F(3,455)=.28$, *ns*. A confederate-gender-by-CIPV-group interaction was also found, $F(3,455)=3.33$, $p<.05$. To follow up this interaction, simple main effects using local error terms were examined to determine the effect of confederate gender within each of the four CIPV groups. While use of local error terms may reduce power, this method does not require an assumption of homogeneity of variance across cells. Significantly higher levels of aggression toward male vs. female confederates were

found in both the no-childhood-IPV, $F(1,137)=6.95$, $p<.0]$ and the unidirectional-male-to-female CIPV group, $F(1,68)=11.18$, $p<.01$. No such significant differences in aggression across confederate gender were found for either the bidirectional CIPV group [$F(1,154)=.07$, *ns*] or the unidirectional-female-to-male CIPV group [$F(1,96)=.06$, *ns*].

Table 8

Analysis of Variance for Laboratory Aggression Scores

Source	Type III SS	*df*	MSE	*F*	η	*P*
Corrected Model	59.60*	7	8.51	2.56	.038	.014
Confederate Gender (CG)	35.46	1	35.46	10.65	.023	.001
CIPV Group (CIPV)	2.83	3	.94	.28	.002	.838
CG x CIPV	26.81	3	8.94	2.68	.017	.046
Error	1515.58	455	3.33			
Total	7491.00	463				
Corrected Total	1575.18	462				

*R^2 = .038 (Adjusted R^2 = .023)

Table 9

Cell Means and Standard Deviations for Laboratory Aggression Scores

	Male Confederate		Female Confederate	
CIPV Group	*Mean*	*SD*	*Mean*	*SD*
No CIPV	4.09	1.98	3.28	1.66
Male-to-female CIPV	4.13	1.72	2.78	1.66
Female-to-male CIPV	3.59	1.83	3.50	1.93
Bidirectional CIPV	3.66	1.90	3.58	1.80

Hypothesis 5

Model testing was conducted using LISREL 8.72 (Jöreskog & Sörbom, April 2005). Model testing was based on the variance-covariance matrix, using maximum likelihood estimation. In each of the three CIPV groups, a path model for latent variables, which included a direct path from childhood witnessing of IPV ("cipv") as well as to adult general violent behavior ("genviol"), was tested. Manifest indicators of latent variables were those described as such in the "Measures" section above, resulting in a total of 2 latent variables and 8 manifest variables. To obtain adequate model fit, the covariance of various residuals was freed. In theta-delta, the covariance of the residuals for MRSVAPA and FRSVAPA as well as the covariance of the residuals of MSSVAPA and MRSVAPB were freed in all models. This change in the model was held to be acceptable because in the first case the scales contain similar items and items are juxtaposed (i.e., the questions are physically next to each other on the questionnaire) and in the second because the items are subscales of the same measure; these indicators would therefore reasonably be expected to be related. In theta-epsilon, covariances between the residuals of general violent behavior outside of relationships ("GVQSUM") and both overall violence against female romantic partners ("ADMTOF") and sexual assault ("SESL") were freed. This change in the model was held to be acceptable because these indicators both measured a wide variety of violence across multiple victims, whereas the other indicator ("GVQEXES") was narrowly limited to only former romantic partners. To allow for comparison of model fit across groups, the same adjustment was made in all groups. Annotated LISREL syntax, including information of freeing of

residual covariances, for all final models, followed by covaraince matrices for all models, may be found in Appendix P.

Bidirectional CIPV Group. For this group, the proposed model was a good fit to the data (χ^2=38.20, *df*=15, *p*=.00; RMSEA=.08; CFI=.99; GFI=.97; NNFI=.97), with the latent variable of CIPV significantly predicting more generalized violence in adulthood (*t*=6.61). The full structural model for this group is presented in Figure 3, below.

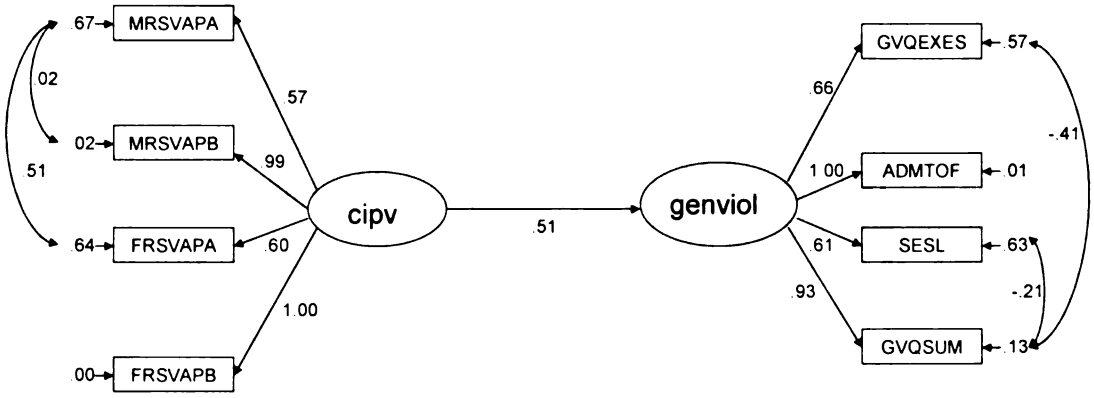

Figure 3. Standardized solution for bidirectional CIPV group.

Unidirectional Female to Male CIPV Group. For this group, the proposed model again appeared to be an adequate fit to the data (χ^2=35.11, *df*=15, *p*=.00; RMSEA=.09; CFI=.97; GFI=.94; NNFI=.94), with the latent variable of CIPV significantly predicting more generalized violence in adulthood (*t*=4.22). However, this model produced a squared multiple correlation for an X variable ("FRSVAPB") of 1.01 as well as a negative error variance for the same variable, suggesting the model must be rejected. The full structural model for this group is presented in Figure 4, below.

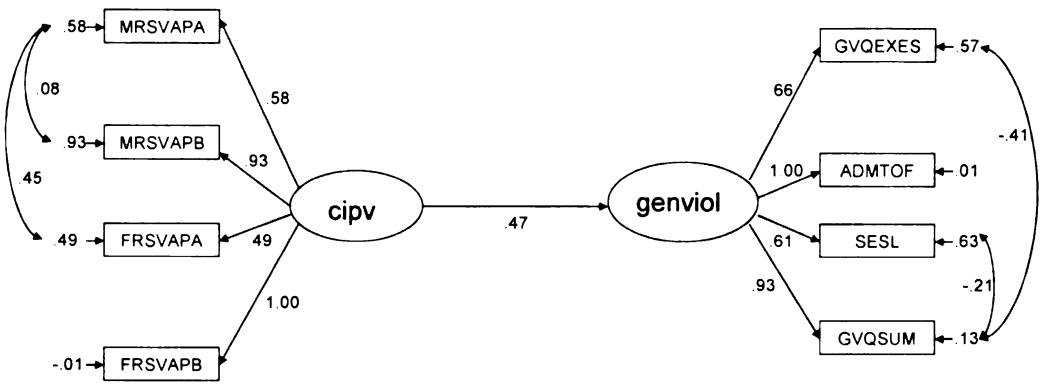

Figure 4. Standardized solution for the female to male CIPV group.

Unidirectional Male to Female CIPV Group. For this group, the proposed model was a good fit to the data (χ^2=17.25, *df*=15, *p*=.30; RMSEA=.03; CFI=.99; GFI=.96; NNFI=.99), with the latent variable of CIPV significantly predicting more generalized violence in adulthood (*t*=2.45). The full structural model for this group is presented in Figure 5, below.

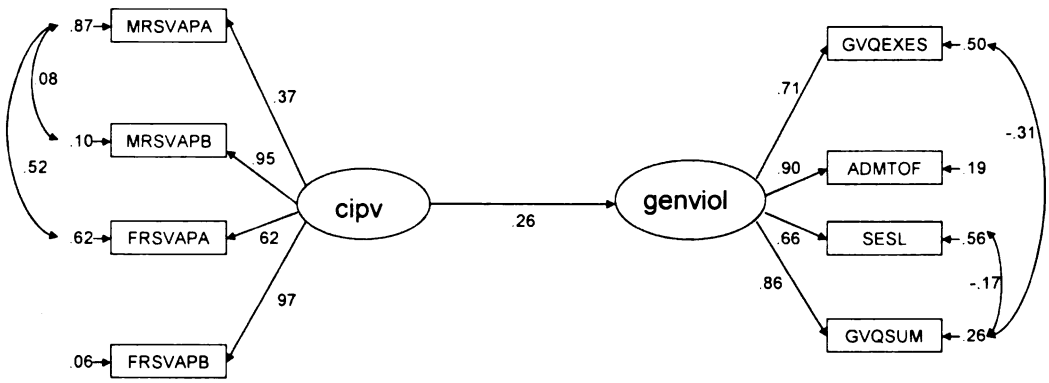

Figure 5. Standardized solution for the male to female CIPV group.

Hypothesis 6

As for hypothesis 5 above, model testing was conducted using LISREL 8.72 (Jöreskog & Sörbom, April 2005). Model testing was based on the variance-covariance

matrix, using maximum likelihood estimation. In each of the three CIPV groups, a path model for latent variables, which included both a direct path from childhood witnessing of IPV ("cipv") to adult violence against women ("avaw") and a mediated path via hostile attitudes toward women ("atgen"), was tested for all three groups. Manifest indicators of latent variables were those described as such in the "Measures" section above, resulting in a total of 3 latent variables and 10 manifest variables. As was the case for the models in hypothesis 4, the covariance of the residuals for MRSVAPA and FRSVAPA as well as the covariance of the residuals of MRSVAPA and MRSVAPB were freed in all models. To allow comparison of model fit across groups, the same adjustment was made in all groups. Annotated LISREL syntax, including information of freeing of residual covariances, for all final models, followed by covaraiances matrices for all models, may be found in Appendix Q.

Bidirectional CIPV Group. In the Bidirectional CIPV group, all proposed pathways between latent variables were significant, suggesting that more IPV witnessed in childhood predicted both more violence against women and more hostility against women, and that hostile attitudes toward women, in turn, predicted more violence against women. Model fit indicators suggested good fit to the data, χ^2=58.70, *df*=30, *p*=.00; RMSEA=.06; CFI=.98; GFI=.95; NNFI=.97.

Next, two alternate models were constructed for comparison to investigate if more parsimonious models might be employed rather than this partially mediated model. The fully mediated model (dropping the path from CIPV to adult violence against women) was an adequate, though not good, fit to the data (χ^2=118.75, *df*=31, *p*=.00; RMSEA=.11; CFI=.95; GFI=.91; NNFI=.92) and resulted in a significant worsening of model fit, as

indicted by a χ^2 difference test ($\Delta\chi^2$=60.05, Δ *df*=1, *p*<.01). The direct model (dropping the path from CIPV to attitudes against women and the path from attitudes against women to adult violence against women) resulted in adequate model fit (χ^2=76.11, *df*=32, *p*=.00; RMSEA=.07; CFI=.97; GFI=.94; NNFI=.96) and, again, resulted in a significant worsening of model fit, as indicted by a χ^2 difference test ($\Delta\chi^2$=17.04, Δ *df*=2, *p*<.01). Thus, the better-fitting, partially mediated model was retained. The full structural model for this group is presented in Figure 6, below.

Unidirectional Female to Male CIPV Group. In this group, all proposed pathways among latent variables were again significant, suggesting that more IPV witnessed in childhood predicted both more violence against women and more hostility against women, and that hostile attitudes toward women, in turn, predicted more violence against women. Model fit indicators suggested good fit to the data, χ^2=56.45, *df*=30, *p*=.00; RMSEA=.08; CFI=.96; GFI=.93; NNFI=.94. Next, two alternate models were estimated for comparison to investigate if more parsimonious models might be employed rather than this partially mediated model. However, solutions for a fully mediated model (dropping the path from CIPV to adult violence against women) or a direct model (dropping the path from CIPV to attitudes against women and the path from attitudes against women to adult violence against women) did not converge. Thus, the partially mediated model was retained. The full structural model for this group is presented in Figure 7, below.

Unidirectional Male to Female CIPV group. In the Unidirectional Male to Female CIPV group, pathways among latent variables were significant such that more IPV witnessed in childhood predicted more adult violence against women and that hostile

attitudes toward women predicted adult violence against women. However, childhood witnessing of IPV did not predict hostile attitudes toward women in this group. Model fit indicators suggested good fit to the data, χ^2=41.45, *df*=30, *p*=.08; RMSEA=.06; CFI=.98; GFI=.93; NNFI=.97.

To determine whether a more parsimonious model might provide a better fit to the data for this group, this partially mediated model was compared to a model that included only the direct relationship between CIPV and adult violence against women. This direct model resulted in adequate fit to the data (χ^2=52.24, *df*=32, *p*=.01; RMSEA=.08; CFI=.97; GFI=.91; NNFI=.95), but significant worsening of model fit as indicated by a χ^2 difference test ($\Delta\chi^2$=10.79, Δ *df*=2, *p*<.01). Due to lack of evidence for mediation in this group, a fully mediated model was not tested as in other groups. The full structural model for this group is presented in Figure 8, below.

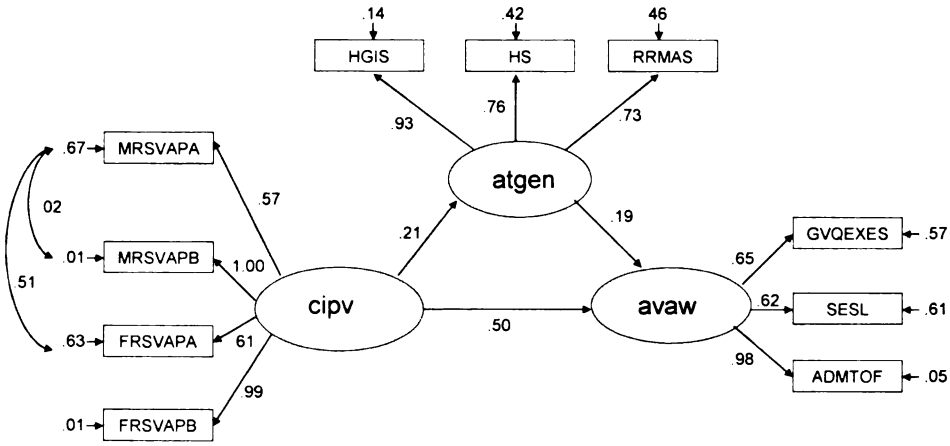

Figure 6. Standardized solution for the bidirectional CIPV group.

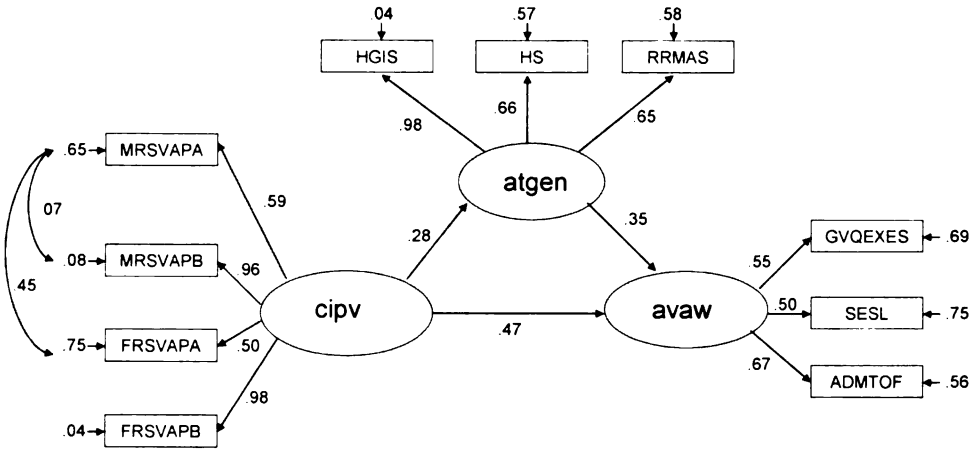

Figure 7. Standardized solution for the female to male CIPV group.

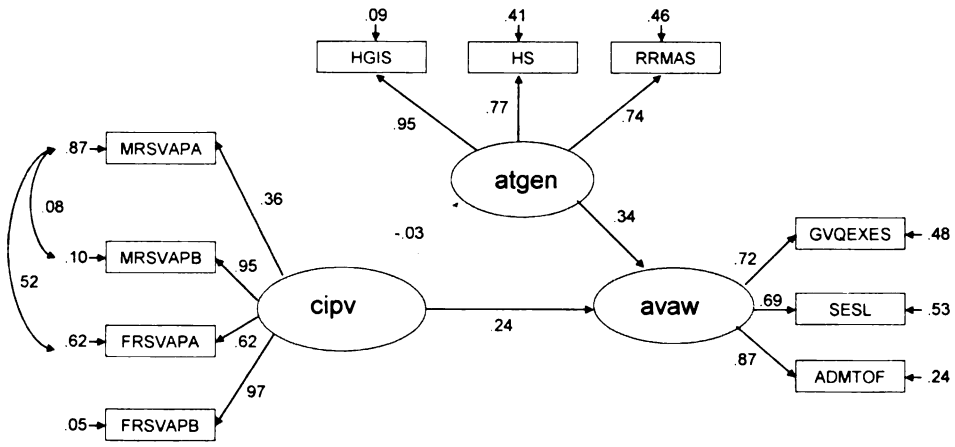

Figure 8. Standardized solution for the male to female CIPV group.

Discussion

The current study sought to examine how the childhood witnessing of IPV translated into adult violent behavior. In particular, the study sought to examine how the nature of the IPV to which a child is exposed might lead to different social learning pathways: one which follows a typical social learning pattern and a second in which social learning of aggression becomes tied to gender. The study sought to examine how adult violent behavior became gendered under some conditions—that is, how some men become generally violent and some men become violent against women. In the case of children exposed to gendered CIPV (where the violence to which a child was exposed was committed by one gender more than another), it was expected that learning of violent behavior would become incorporated into children's developing understanding of gender. While the general notion that different types of CIPV might lead to different outcomes for gendered vs. non-gendered violence was supported, the hypotheses were not supported. Findings suggested that a preponderance of exposure to female violence may provide the greatest risk for hostility toward women and gendered violence.

Social Learning of IPV

Study results were consistent with extant research that documents increased likelihood of engaging in adult IPV if exposed to IPV in childhood; those participants who were exposed to CIPV displayed higher scores on measures of adult violence toward female romantic partners. Similar findings have been demonstrated in both retrospective studies (Hotaling & Sugarman, 1990; Jankowski et al., 1999; Kalmuss, 1984; Kwong et al., 2003; Rosenbaum & O'Leary, 1981) and prospective cross sectional studies as well as in longitudinal (Ehrensaft et al., 2003) and meta-analytic studies (Stith et al., 2000). Such

findings are consistent with the application of social learning theory to the development of IPV, and are consistent with experimental research that has demonstrated that aggressive and violent behavior may be acquired via observation of an aggressive model (Bandura et al., 1961; Hicks, 1968; Puleo, 1978).

Interestingly, the studies that have previously demonstrated this relationship have specifically examined childhood exposure to IPV between parents. The present study expanded the definition of exposure to include witnessing of violence between non-parent adults. Rates of violence witnessed were considerably higher in the current study sample than in previously reported work. Research on childhood exposure to interparental violence typically reports that 20-25% of children report witnessing incidents of IPV between parents (McCloskey et al., 1995; McCloskey & Lichter, 2003; McCloskey & Walker, 2000; O'Brien et al., 1994). In the current study, 70.1% of participants reported witnessing at least one act of IPV. Though many of the acts of IPV witnessed may certainly have been of the less severe variety, the present study suggests that rates of CIPV exposure among children may be underreported. In addition, the fact that the relationship between CIPV exposure and adult IPV was demonstrated even though the adults modeling IPV were not parents in all cases is consistent with the notion that modeling of behavior may account for this relationship, rather than genetically transmitted risk or maladaptive parenting as a result of maternal or paternal IPV victimization. However, as the current study did not specifically examine biological or caregiving relationships, these issues cannot be definitively addressed.

Differential Effects of CIPV Subtype

The three CIPV groups did not differ significantly from each other in amount of adult IPV reported or in overall aggression assessed experimentally. This finding seems to run contrary to research suggesting that boys are more likely to learn from modeling by a male (Bussey & Bandura, 1984). However, study findings did support differential effects of types of CIPV to which a child might be exposed; the CIPV groups differed with regard to both negative attitudes toward women and experimentally-assessed aggression toward male vs. female confederates.

Study results indicated that the different CIPV sub-types may lead to differential acquisition of stereotypically negative attitudes about women. However, these group differences did not occur in the manner predicted. The bidirectional CIPV group displayed elevated scores on two indicators of stereotypically negative attitudes about women, and the female-to-male CIPV group displayed elevated scores on three indicators of stereotypically negative attitudes about women (as compared to the lowest scoring, no CIPV group). This finding ran counter to the expectation that it would be participants in the male-to-female CIPV group who would score highest on these measures. It was hypothesized that the highest degree of hostility toward women would emerge from childhood exposure to predominantly male-to-female violence, because the child would learn the negative treatment of women modeled for him. Contrary to expectations, it appears that a rather different process is at work. It seems that the most hostile attitudes about women emerge from watching women act violently; that is, the child reacts with stereotypically negative attitudes when exposed to the violent behavior of women. If one presumes that high levels of hostility toward women are expressed in families in which male-to-female IPV occurs, the lower levels of hostile attitudes toward women found in

boys exposed to male-to-female CIPV seem somewhat contrary to the social cognitive theory of gender development for children exposed to male-to-female IPV (Bussey & Bandura, 1999). However, this may not be the case. It is possible that very high levels of hostile attitudes regarding women are expressed in families in which IPV is predominantly perpetrated by women. Boys might then learn stereotypical and negative attitudes about gender via direct tuition or modeling of these beliefs. Unfortunately, the current study does not address this question.

Similarly, in the laboratory aggression proxy it was hypothesized that, because participants in the male-to-female CIPV group were expected to have learned negative treatment of women, participants in the male-to-female CIPV group would display higher levels of aggressive behavior toward female confederates. Rather, in general, elevated aggression was expressed toward male targets. This effect varied across CIPV groups, such that rates of aggression were statistically equivalent across male and female targets in the female-to-male and bidirectional CIPV groups and greater toward male targets in the male-to-female and no CIPV groups. The results of the laboratory aggression proxy suggest that typically more aggression is expressed toward males, as evidenced by the behavior of the no CIPV control group. Such findings are consistent with evidence that the bulk of violence is in fact perpetrated by males against males. For example, the U.S. Bureau of Justice Statistics reports that in 2004 over 65% of homicides were male victims with male offenders and men were almost 4 times more likely than women to be murdered. It is suspected the increased predominance of female aggression witnessed in childhood by the female-to-male and bidirectional CIPV groups alters the general

tendency to aggress predominantly against males, replacing it with a tendency to aggress toward females.

Specific Processes within CIPV Groups

Overall these results lent support to the notion that different transmission processes might be at work in the three CIPV-exposed groups. In particular, lack of CIPV group differences in overall aggression combined with significant CIPV group differences with regard to hostile attitudes toward women and differential aggression by gender, suggest that beliefs about gender may be what distinguishes the process by which adult IPV is acquired across groups.

To further elucidate how the acquisition of violent behavior occurs in these three groups, the relationships among CIPV, adult violent behavior, and stereotypically negative attitudes toward women were modeled separately in the three CIPV-groups. First, general acquisition of violent behavior was modeled. In this case, a model was estimated in which CIPV predicted latent general adult violent behavior. As was expected, CIPV predicted a general increase in adult violent behavior, including both violence directed specifically against women and other violence. These findings are consistent with social learning theory (Bandura, 1973). The violence witnessed in childhood appears to be acquired via modeling and generalized to other situations outside IPV. However, modeling was not successful in one group and the direct models did not reveal differences across CIPV groups.

More successful modeling of intergenerational transmission of IPV subtypes was achieved by estimation of a model addressing the relationships among CIPV, adult violence against women, and stereotypical, negative attitudes about women. Partially

mediated models, including both direct pathways between CIPV and adult violence against women as well as a mediated pathway via stereotypical gender attitudes, fit the data better than did fully mediated or simple direct models in all three CIPV groups. However, differences in patterns of significance and non-significance of individual model pathways revealed differences in predictive relationships across groups. In both the female-to-male and bidirectional CIPV groups, all proposed pathways were significant, suggesting true partial mediation. However, in the male-to-female CIPV group, no relationship was demonstrated between CIPV and negative attitudes towards women. This seems to suggest that, though negative stereotypes towards women may contribute to adult violence against women in this group, they are not acquired from witnessing predominantly male-to-female violence in childhood. Interestingly, such attitudes do seem to be acquired from witnessing bidirectional or predominantly female violence in childhood.

In all three groups, these findings are consistent with the notion that hostile attitudes toward women are linked with adult violence against women, although the relationship of these attitudes to CIPV exposure differs across groups. In all three groups, hostile attitudes toward women were predictive of increased violence against women. This result is consistent with other research that implicates negative and/or stereotypical attitudes about women in both sexual assault (Abbey et al., 2001; Christopher et al., 1998) and IPV (Capaldi et al., 2001; Toews et al., 2003).

It was hypothesized that hostile attitudes toward women would be acquired from the apparent hostility toward women expressed in families where IPV was perpetrated primarily by males against females. To the contrary, it was found that when CIPV was

perpetrated either predominantly by females against males or approximately equally by males and females, CIPV was predictive of hostile attitudes toward women. When CIPV was perpetrated predominantly by males, no such predictive relationship was demonstrated. It seems that the greatest risk for acquisition of hostile attitudes against women and subsequent violence against women occurs for children who are exposed to CIPV that is either predominantly female or bidirectional. One possibility is that exposure to comparatively greater violence by women produces a reaction in which boys' conceptualizations of gender become especially negative with regard to women.

For the bidirectional and female-to-male CIPV groups, the increases in stereotypical masculinity and negative attitudes towards women may be seen as an increase in what Chodorow (1978, 1989) refers to as "positional male identity" (i.e., male identity) that is constructed in opposition to femininity and is rooted in stereotypes of women rather than identification with a particular man or that man's behavior. In Chodorow's description of typical gender identity development, this type of positional male identity emerges when boys transition from their primary identification with mothers to a male gender identity. Chodorow holds that because fathers are not typically as physically present in the child's life as are mothers, male gender identity becomes more rooted in stereotypical male roles and the notion of masculinity as the opposite of the better known, female primary identification. It may be possible that what occurs for boys whose mothers are violent is that the need to seek this different, positional male identity is even more pronounced. Faced with aggressive, violent models of femininity, the desire to adopt a converse identity may become more intense, because the femininity being modeled is both threatening to the male role and aversive.

Another possibility is that the relatively higher rates of hostile and stereotypical attitudes seen in these groups may be a result of a negative response to higher rates of female violence to which these men were exposed. For example, intensely hostile attitudes may result from the fact that violent women who engage in IPV violate gender norms, which preclude violence and aggression in women. While no known research has addressed this issue specifically, some evidence suggests that violations of traditional gender norms by rape victims may be associated with increased victim blaming (Cassidy & Hurell, 1995; Krahe, 1988; Viki & Abrams, 2002). Furthermore, research with children suggests that girls who adopted masculine behaviors (as distinguished from appearance or dress) are evaluated more negatively than boys adopting feminine behavior (Blakemore, 2003). If it is the case that adult male partners react to female violence by expressing hostile attitudes toward women, then boys exposed to IPV perpetrated by women could be more likely to have hostile attitudes toward women as a result of modeling of gender as described by Bussey and Bandura (1984). On the other hand, it may be that incidents of female-to-male violence, which run contrary to stereotypes, are particularly noticed by young boys, and consequently better recalled when reported retrospectively.

Interestingly however, it should be noted that the bidirectional group and male-to-female CIPV groups did not have significantly different scores for childhood female-to-male violence. Rather, the distinction between these two groups was due to higher rates of male violence in the male-to-female group. Thus it would seem that what distinguishes the male-to-female CIPV group is the relatively high rates of male violence expressed in this group. Perhaps it is the case than when hostility is expressed toward women

physically it not as likely to be encoded as part of hostile attitudes toward women, but rather as a violent act.

Limitations

The results of the current study must be considered in light of several limitations. First, with the exception of the data from the experimental aggression proxy, all data were collected by self-report from single reporters. To a certain degree, the convergence of the experimental group differences in aggression and the self-reported IPV group differences somewhat addresses this concern. Future studies could be improved by employing additional reporters on both current violent behavior and/or childhood witnessed violence. Research paradigms in which couples report on each other's violent behavior might be used to address some concerns about the validity of self-report of episodes of adult IPV. Similar paradigms in which multiple family members report on childhood violence might improve validity of reported childhood witnessing.

On the other hand, it is not clear that adding parents as informants of childhood exposure to IPV necessarily improves the accuracy of this information. Empirical evidence suggests that parents may be poor reporters of child witnessing of IPV. In a study that examined parent and child report of IPV in 181 families, O'Brien and colleagues (1994) found that of the 39 families in which at least one parent reported IPV that was not witnessed by the child, approximately 21% of the children in these families reported witnessing IPV. Furthermore, in families where parents reported no IPV, approximately 10% of children reported witnessing some IPV. The limitation of single-reporter bias is perhaps better addressed by the successful demonstration of group differences on an experimental proxy of differential aggression towards males and

females. This finding highlights how experimental and self-report methodologies may be combined in the study of violent behavior. Use of experimental paradigms, though necessarily only an indicator of potentially violent behavior, may serve as an important additional tool in establishing tendency to engage in violence against women.

Second, the current study was limited by the fact that all participants were drawn from an undergraduate population. This places clear limits on generalizability and may have attenuated some findings. Most significantly, the relatively young age of most participants and the fact that most participants were unmarried may have resulted in a decreased rate of IPV in the sample. Simply being younger and therefore having spent less time in romantic relationships with women will necessarily reduce the lifetime prevalence of IPV for the sample. Similar reductions in variance might also be expected of sexual assault and general violent behavior. Although age was not significantly correlated with scores for adult IPV perpetration, sexual coercion, or general violence in the current sample (r=.05, *ns*; r= .01, *ns*; and r=.002, *ns*, respectively), the limited range of ages present in the current sample might not fully capture such an association. Future research with community-based samples may improve both generalizability and variance.

Another limitation of the current study is that detailed information on the context and intent of the CIPV to which subjects were exposed is not available. For example, in a non-shelter sample, both men and women showed fairly equivalent rates of intimate terrorism (in which violence is part of an overall control strategy, whereas violent resistance (non-controlling aggression in response to a partner's controlling aggression) tended to be employed more often by women (Graham Kevan & Archer, 2003). As the current study does not employ a sample likely to have higher rates of male-to-female IPV

(such as would be the case in a shelter sample or incarcerated sample), it seems likely that the current sample should include fairly equivalent rates of intimate terrorism in the male-to-female and female-to-male groups, with a possibility that the female-to-male group includes more violent resistance. In addition, Graham-Kevan and Archer found that mutually violent couples were predominantly both non-controlling, though in a smaller percentage of cases both partners used controlling violence, both types of which may be present in the bidirectional group in the current study. Future research may further refine our understanding of risks conferred by CIPV exposure by more completely describing the instrumental nature of the IPV to which children are exposed. Retrospective research is perhaps ill-suited to such fine-tuned descriptions of violence, as participants may have difficulty reporting whether the violence they witnessed in childhood was indeed part of an overall strategy of control, as most children would be unable to make such cognitively sophisticated judgments. Longitudinal research in which parents and other adults can report on on-going violence may be better suited to answer these questions.

In addition, the methods used to classify participants into CIPV groups may itself be problematic. A relatively low threshold was employed for the definition of having witnessed violence in childhood. Threats of moderate violence were included which may not be considered severe enough to warrant inclusion. Research on the types of violence perpetrated by men and women suggests that, while men and women may perpetrate violence against each other at equivalent rates, men are more likely to injure a romantic partner (Dobash, Dobash, Wilson, & Daly, 1992).This suggests that the types of IPV perpetrated may not be consistent across CIPV groups. However, a preliminary

examination of percentages of witnessed threats of violence vs. perpetrated physical violence for male vs. female perpetrators reveals that these rates are roughly equivalent in the present sample. For example, 8% of participants reported witnessing a male perpetrate a moderate or severe threat of violence but not enact physical violence, and 9% of participants reported witnessing a female perpetrate a moderate or severe threat of violence but not enact physical violence. Similarly, 41% of participants reported witnessing a male perpetrate at least one act of physical violence, and 43% of participants reported witnessing a female perpetrate at least one act of physical violence. For those acts witnessed that were classified as "severe IPV" (i.e., those used to make CIPV classifications), 85.8% of female perpetrators engaged in at least one act of physical or sexual violence, and 86.3% of male perpetrators engaged in at least one act of physical or sexual violence. Classification of CIPV based only on threats of violence were much less common; 14.2% of female perpetrators engaged in a moderate or severe threat of violence but did not enact physical violence, and 13.7% of male perpetrators engaged in a moderate or severe threat of violence but did not enact physical violence. While this does not address the degree of injury or harm that may have resulted from the violence, it does suggest that gross rates of physical violence vs. threats of violence witnessed in childhood were roughly equivalent across study participants, and the classifications by CIPV were not biased toward witnessing more violent behavior by men.

Finally, study results may be limited by the fact that participants were asked only about exposure to IPV in childhood. IPV commonly co-occurs with other risk factors [e.g., single parent status, lower family income, less maternal education, frequent family moves, parental divorce, maternal and paternal drinking, incarceration of father

(Spaccarelli et al., 1994) and child abuse (O'Keefe, 1994)]. The current study does not examine the role of such risk factors, nor does it address how exposure to models of violent behavior outside of romantic relationships (e.g., gang violence in a child's neighborhood) may affect outcomes. On the other hand, exposure to IPV has been shown to account for behavioral and psychological problems in children over and above the effects of these co-occurring risk factors (Hughes, 1988; Spaccarelli et al., 1994), suggesting that meaningful contributions to long-term outcomes might be expected from IPV alone.

Implications & Directions for Future Research

The current study raises several possible questions to be addressed in future research. First, the study lends support to the notion that unique outcomes may result as a function of the type of IPV to which a child is exposed. Research on children exposed to IPV does not typically examine the directionality of the IPV to which a child is exposed. However, a recent study which examines unique effects of father-to-mother and mother-to father violence on adolescent internalizing and externalizing behaviors makes an important first-step in this direction (Baldry, in press). The current study delineates the importance of examining the differential effects of type of IPV exposure on children. Future studies should examine other possible outcomes.

For example, the current study results seem to suggest that exposure to IPV perpetrated either predominantly by female or equivalently by males and females creates a unique risk for development for hostile attitudes toward women in exposed boys. These hostile attitudes, in turn, are predictive of increased violence against women in adulthood. Interestingly, this relationship does not seem to be significant among boys exposed to

IPV perpetrated predominantly by males. These findings suggest a unique pathway to the development of IPV as compared to generalized violence, one which future research might more fully investigate in prospective studies where children are exposed to various types of IPV. In addition, this finding has implications for interventions with children exposed to IPV. Battered women's shelters, a common referral source for interventions targeting children exposed to IPV, are most likely to serve women and children exposed to IPV which is predominantly perpetrated by males (Archer, 2000; Graham-Kevan & Archer, 2003; Johnson, 1995). While these groups are certainly at risk for development of IPV in adulthood, children exposed to bidirectional and predominantly female-perpetrated IPV may not be obtaining needed services. In addition, these children may require unique interventions that address the acquisition of hostile attitudes toward women.

Future research might usefully examine the process by which children learn hostile gender attitudes. It is particularly surprising that no predictive link could be found for the relationship between childhood IPV exposure and hostile attitudes towards women in the group exposed to the highest levels of IPV perpetrated against women. It may be that some unknown factor intervenes in the process of learning hostile attitudes toward women in this group. Future research which focuses on how gender attitudes are learned in families with various types of IPV may elucidate how this attitudinal pathway is established. Further investigating how hostile attitudes toward women are learned may serve to clarify more fully how Bussey and Bandura's (1999) social cognitive learning theory may be applied.

Conclusion

The current study represents an important first step to understanding how the type of IPV to which a child is exposed contributes to the development of violence against women in adulthood. Rather than simply acquiring violent behavior by observing a violent model in childhood, study results indicate when boys are exposed to IPV that is either perpetrated predominantly by females against males or equally by males and females, the development of adult violence against women is partially mediated through hostile attitudes toward women. Further research may clarify how attitudes about gender are learned in families experiencing various types of IPV, describe how IPV between non-parent adults contributes to the phenomenon of childhood IPV exposure, and employ novel experimental paradigms to further validate self-reports of aggressive and violent behavior. Such research may ultimately lead to improved interventions for children exposed to IPV.

APPENDICES

APPENDIX A

Demographic Questionnaire

Below are some general questions about you.
For each question, please give the answer that best describes you.

1. What is your sex? (Please circle.) Male Female

Note: This study is open to males only. If you are a female, and have been assigned to this study in error, please see the experimenter.

2. How would you describe you race/ethnicity? (Please circle all that apply.)

White/Caucasian

Black/African-American

Asian/Pacific Islander

Hispanic/Latino

Native American/Alaskan Native

Bi-/Multi-racial

Other: _____

3. Which of the ranges below best describes your approximate annual family income? (Please circle. For students supported by parents, include your parents' income)

$0-18,500

$19,000-30,000

$30,500-50,000

$50,000-75,000

$75,000-100,000

$100,000-$200,000

$200,000 and above

4. What is your age (in years)? _____

5. Which of the terms below best describes your current relationship status?

Married

Divorced

Co-habiting (unmarried)

Boyfriend/Girlfriend

Single

APPENDIX B

RSVAP

Most couples experience anger or conflict. As a child, you most likely observed a number of conflicts between adults and their romantic partners (e.g. wives, husbands, girlfriends, boyfriends etc.). In answering the questions below, please consider all adults you had the opportunity to observe as a child (e.g., biological parents, adoptive parents, legal guardians, foster parents, grandparents, friend of parents, aunts, uncles, older siblings, etc.). Below is a list of behaviors that an adult may have done in a conflict with a romantic partner. Please indicate how often a parent or caregiver experienced each behavior during your childhood and adolescence by choosing a letter from the following scale.

A	B	C	D
never	once	a few times	many times

Times I saw and adult man do this to his female romantic partner: ↓	*Times I saw and adult woman do this to her male romantic partner:* ↓		*Times I saw and adult man do this to his female romantic partner:* ↓	*Times I saw and adult woman do this to her male romantic partner:* ↓	
1. ____	____	Hit or kicked a wall, door or furniture	8. ____	____	Acted like a bully toward a romantic partner
2. ____	____	Threw, smashed or broke an object	9. ____	____	Destroyed something belonging to a romantic partner
3. ____	____	Driven dangerously with a romantic partner in the car	10. ____	____	Threatened to harm or damage things a romantic partner care about
4. ____	____	Threw an object at a romantic partner	11. ____	____	Threatened to destroy property
5. ____	____	Shook a finger at a romantic partner	12. ____	____	Threatened someone a romantic partner care about
6. ____	____	Made threatening gestures or faces at a romantic partner	13. ____	____	Threatened to hurt a romantic partner
7. ____	____	Shook a fist at a romantic partner	14. ____	____	Threatened to kill himself

Times I saw and adult man do this to his female romantic partner: ↓	*Times I saw and adult woman do this to her male romantic partner:* ↓	
15. ____	____	Threatened a romantic partner with a club-like object
16. ____	____	Threatened a romantic partner with a knife or gun
17. ____	____	Threatened to kill a romantic partner
18. ____	____	Threatened a romantic partner with a weapon
19. ____	____	Acted like he wanted to kill a romantic partner
20. ____	____	Held a romantic partner down, pinning them in place
21. ____	____	Pushed or shoved a romantic partner
22. ____	____	Shook or roughly handl a romantic partner
23. ____	____	Grabbed a romantic partner suddenly or forcefully
24. ____	____	Scratched a romantic partner
25. ____	____	Pulled a romantic partner's hair

Times I saw and adult man do this to his female romantic partner: ↓	*Times I saw and adult woman do this to her male romantic partner:* ↓	
26. ____	____	Twisted a romantic partner's arm
27. ____	____	Spanked a romantic partner
28. ____	____	Bit a romantic partner
29. ____	____	Slapped a romantic partner with the palm of their hand
30. ____	____	Slapped a romantic partner with the back of their hand
31. ____	____	Slapped a romantic partner around their face and head
32. ____	____	Kicked a romantic partner
33. ____	____	Hit a romantic partner with an object
34. ____	____	Stomped on a romantic partner
35. ____	____	Choked a romantic partner
36. ____	____	Punched a romantic partner

Times I saw and adult man do this to his female romantic partner: ↓	*Times I saw and adult woman do this to her male romantic partner:* ↓	
37. ____	____	Burned a romantic partner with something
38. ____	____	Used a club-like object on a romantic partner
39. ____	____	Beat a romantic partner up
40. ____	____	Used a knife or gun a romantic partner
41. ____	____	Demanded sex whether a romantic partner wanted to or not

Times I saw and adult man do this to his female romantic partner: ↓	*Times I saw and adult woman do this to her male romantic partner:* ↓	
42. ____	____	Made a romantic partner have oral sex against their will
43. ____	____	Made a romantic partner have sexual intercourse against their will
44. ____	____	Physically forced a romantic partner to have sex
45. ____	____	Made a romantic partn have anal sex against their will
46. ____	____	Used an object on a romantic partner in a sexual way

Please answer the following questions about any of the above actions you saw a *man* do to his female romantic partner (e.g., his wife or girlfriend).

1. For the questions you answered above, was the male person(s) doing the action your (please circle all that apply)....

Father Grandfather Uncle Brother Other male relative

Legal Guardian Foster Parent Family friend Other: _____

2. For the questions you answered above, was the female person(s) to whom the action was done your (please circle all that apply)....

Mother Grandmother Aunt Sister Other female relative

Legal Guardian Foster Parent Family friend Other: _____

3. On average, how often did you usually see this man as a child (please circle)?
Every day 3-4 days a week 1-2 days a week 1-2 days a month A few days each year

4. Was this man your primary caregiver (the person who took care of you the most as a child)?
YES NO

Please answer the following questions about any of the above actions you saw a *woman* do to her male romantic partner (e.g., her husband or boyfriend).

1. For the questions you answered above, was the female person(s) doing the action your (please circle all that apply)....

Mother Grandmother Aunt Sister Other female relative

Legal Guardian Foster Parent Family friend Other: _____

2. For the questions you answered above, was the male person(s) to whom the action was done your (please circle all that apply)....

Father Grandfather Uncle Brother Other male relative

Legal Guardian Foster Parent Family friend Other: _____

3. On average, how often did you usually see this woman as a child?
Every day 3-4 days a week 1-2 days a week 1-2 days a month A few days each year

4. Was this woman your primary caregiver (the person who took care of you the most as a child)?
YES NO

Please answer the following questions about any of the above actions you saw a *man* do to his female romantic partner (e.g., his wife or girlfriend).

1. For the questions you answered above, was the male person(s) doing the action your (please circle all that apply)....

Father Grandfather Uncle Brother Other male relative

Legal Guardian Foster Parent Family friend Other: _____

2. For the questions you answered above, was the female person(s) to whom the action was done your (please circle all that apply)....

Mother Grandmother Aunt Sister Other female relative

Legal Guardian Foster Parent Family friend Other: _____

3. On average, how often did you usually see this man as a child (please circle)?

Every day 3-4 days a week 1-2 days a week 1-2 days a month A few days each year

4. Was this man your primary caregiver (the person who took care of you the most as a child)?
YES NO

Please answer the following questions about any of the above actions you saw a *woman* do to her male romantic partner (e.g., her husband or boyfriend).

1. For the questions you answered above, was the female person(s) doing the action your (please circle all that apply)....

Mother Grandmother Aunt Sister Other female relative

Legal Guardian Foster Parent Family friend Other: _____

2. For the questions you answered above, was the male person(s) to whom the action was done your (please circle all that apply)....

Father Grandfather Uncle Brother Other male relative

Legal Guardian Foster Parent Family friend Other: _____

3. On average, how often did you usually see this woman as a child?

Every day 3-4 days a week 1-2 days a week 1-2 days a month A few days each year

4. Was this woman your primary caregiver (the person who took care of you the most as a child)? YES NO

APPENDIX C

HGIS

Please rate the degree to which you agree or disagree with the following statements by circling a number on this scale:

1 = strongly disagree
2 = disagree
3 = somewhat disagree
4 = somewhat agree
5 = agree
6 = strongly agree

Remember that all answers to questionnaires will be anonymous, so please be as honest as possible.

1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = somewhat agree; 5 = agree; 6 = strongly agree

1. I think it's gross and unfair for men to use alcohol and drugs to convince a woman to have sex with them.	1	2	3	4	5	6
2. Physical violence never solves an issue.	1	2	3	4	5	6
3. Most women need a man in their lives.	1	2	3	4	5	6
4. I like to see a relationship in which the man and woman have equal power.	1	2	3	4	5	6
5. Using alcohol or drugs to convince someone to have sex is wrong.	1	2	3	4	5	6
6. Gays sicken me because they are not real men.	1	2	3	4	5	6
7. Sex should never be used as a bargaining tool.	1	2	3	4	5	6
8. A real man fights to win.	1	2	3	4	5	6
9. Real men look for fast cars and fast women.	1	2	3	4	5	6
10. A true man knows how to command others.	1	2	3	4	5	6
11. When a man spends a lot of money on a date, he should expect to get sex or it.	1	2	3	4	5	6
12. The only thing a lesbian needs is a good, stiff cock.	1	2	3	4	5	6
13. I like relationships in which both partners are equals.	1	2	3	4	5	6
14. Sometimes it doesn't matter what you do to get sex.	1	2	3	4	5	6
15. Women should show off their bodies.	1	2	3	4	5	6
16. Men should be ready to take any risk, if the payoff is large enough.	1	2	3	4	5	6

1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = somewhat agree; 5 = agree; 6 = strongly agree

17. A woman can be complete with or without a partner.	1	2	3	4	5	6
18. No wife is obliged to provide sex for anybody, even her husband.	1	2	3	4	5	6
19. Most women use their sexuality to get men to do what they want.	1	2	3	4	5	6
20. Most women play hard-to-get.	1	2	3	4	5	6
21. Women should break dates with female friends when guys ask them out.	1	2	3	4	5	6
22. Lesbians have chosen a particular lifestyle and should be respected for it.	1	2	3	4	5	6
23. Men have to expect that most women will be something of a prick-tease.	1	2	3	4	5	6
24. A real man can get any woman to have sex with him.	1	2	3	4	5	6
25. Women should be flattered when men whistle at them.	1	2	3	4	5	6
26. It is important that my partner and I are equally satisfied with our relationship.	1	2	3	4	5	6
27. Some gay men are good people and some are not, but it has nothing to do with their sexual orientation.	1	2	3	4	5	6
28. Women instinctively try to manipulate men.	1	2	3	4	5	6
29. Most women will lie to get something they want.	1	2	3	4	5	6
30. Men shouldn't measure their self-worth by their sexual conquests.	1	2	3	4	5	6
31. Get a woman drunk, high, or hot and she'll let you do whatever you want.	1	2	3	4	5	6
32. Men should be in charge during sex.	1	2	3	4	5	6
33. If you're not prepared to fight for what's yours, then be prepared to lose it.	1	2	3	4	5	6
34. It's okay for a man to be a little forceful to get sex.	1	2	3	4	5	6
35. Women don't mind a little force in sex sometimes because they know it means they must be attractive.	1	2	3	4	5	6
36. Homosexuals can be just as good at parenting as heterosexuals.	1	2	3	4	5	6

1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = somewhat agree; 5 = agree; 6 = strongly agree

37. Any man who is a man can do without sex.	1	2	3	4	5	6
38. Gays and lesbians are generally just like everybody else.	1	2	3	4	5	6
39. Pickups should expect to put out.	1	2	3	4	5	6
40. Some women are good for only one thing.	1	2	3	4	5	6
41. Women often dress provocatively to get men to do them favors.	1	2	3	4	5	6
42. If men pay for a date, they deserve something in return.	1	2	3	4	5	6
43. It's natural for men to get into fights.	1	2	3	4	5	6
44. Effeminate men deserve to be ridiculed.	1	2	3	4	5	6
45. All women, even feminists, are worthy of respect.	1	2	3	4	5	6
46. If a woman goes out to a bar for some drinks, she's looking for a real good time.	1	2	3	4	5	6
47. I do what I have to do to get sex.	1	2	3	4	5	6
48. Any man who is a man needs to have sex regularly.	1	2	3	4	5	6
49. Masculinity is not determined by sexual success.	1	2	3	4	5	6
50. Homosexuality is probably the result of a mental imbalance.	1	2	3	4	5	6
51. Nobody should be in charge of a romantic relationship.	1	2	3	4	5	6
52. Real men look for danger and face it head on.	1	2	3	4	5	6
53. A gay man is an affront to real men.	1	2	3	4	5	6
54. He who can, fights; he who can't, runs away.	1	2	3	4	5	6
55. Gay men often have masculine traits.	1	2	3	4	5	6
56. Women sometimes say "no" but really mean "yes."	1	2	3	4	5	6
57. I believe some women lead happy lives without having male partners.	1	2	3	4	5	6

APPENDIX D

HS

Below is a series of statements concerning men and women and their relationships in contemporary society. Please indicate the degree to which you agree or disagree with each statement circling your response using the following scale:

0 = disagree strongly
1= disagree somewhat
2 = disagree slightly
3 = agree slightly
4 = agree somewhat
5 = agree strongly

1.	Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for equality.	0	1	2	3	4	5
2.	Most women interpret innocent remarks or acts as being sexist.	0	1	2	3	4	5
3.	Women are too easily offended.	0	1	2	3	4	5
4.	Feminists are not seeking for women to have more power than men.*	0	1	2	3	4	5
5.	Most women fail to appreciate fully all that men do for them	0	1	2	3	4	5
6.	Women seek to gain power by getting control over men.	0	1	2	3	4	5
7.	Women exaggerate problems they have at work.	0	1	2	3	4	5
8.	Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.	0	1	2	3	4	5
9.	When women lose to men in a fair competition, they typically complain about being discriminated against.	0	1	2	3	4	5
10.	There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances.	0	1	2	3	4	5
11.	Feminists are making entirely reasonable demands of men.	0	1	2	3	4	5

APPENDIX E

RMAS

Please indicate how much you agree or disagree with the following statements by circling your response.

1. A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

2. Any female can get raped.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

3. One reason that women falsely report a rape is that they frequently have a need to call attention to themselves.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

4. Any healthy woman can successfully resist a rapist if she really wants to.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

5. When women go around braless or wearing short skirts and tight tops, they are just asking for trouble.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

6. In the majority of rapes, the victim is promiscuous or has a bad reputation.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

7. If a girl engages in necking or petting and she lets things get out of hand, it is her own fault if her partner forces sex on her.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

8. Women who get raped while hitchhiking get what they deserve.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

9. A woman who is stuck-up and thinks she is too good to talk to guy son the street deserves to be taught a lesson.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

10. Many women have an unconscious wish to be rapes, and may then unconsciously set up a situation in which they are likely to be attacked.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

11. If a woman gets drunk at a party and has intercourse with a man she's just met there, she should be considered "fair game" to other males at the party who want to have sex with her too, whether she wants to or not.

strongly disagree	disagree	somewhat disagree	neither agree nor disagree	somewhat agree	agree	strongly agree

12. What percentage of women who report a rape would you say are lying because they are angry and want to get back at the man they accuse?

almost all	about ¾	about half	about ¼	almost none

13. What percentage of reported rapes would you guess were merely invented by women who discovered they were pregnant and wanted to protect their own reputation?

almost all about ¾ about half about ¼ almost none

14. A person comes to you and claims they were raped. How likely would you be to believe their statement if the person were…

Your best friend?	always	frequently	sometimes	rarely	never
An Indian woman?	always	frequently	sometimes	rarely	never
A neighborhood woman?	always	frequently	sometimes	rarely	never
A young boy?	always	frequently	sometimes	rarely	never
A black woman?	always	frequently	sometimes	rarely	never
A white woman?	always	frequently	sometimes	rarely	never

APPENDIX F

GVQ

Below is a list of behaviors you may have engaged in. You will be asked to indicate how many times you have engaged in the behaviors with various people using the following scale:

A	**B**	C	D	E	F	G
Never	**Once**	**Twice**	**3-5 Times**	**6-10 Times**	**11-20 Times**	**More than 20 Times**

How many times have you ever done any of the things listed below to any person *as **part of a gang or group***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

How many times have you ever done any of the things listed below to any ***family member (excluding your child or wife)***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

A	**B**	C	D	E	F	G
Never	**Once**	**Twice**	**3-5 Times**	**6-10 Times**	**11-20 Times**	**More than 20 Times**

How many times have you ever done any of the things listed below to ***male friends***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

How many times have you ever done any of the things listed below to *female* ***friends (excluding girlfriends)***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

A	**B**	C	D	E	F	G
Never	**Once**	**Twice**	**3-5 Times**	**6-10 Times**	**11-20 Times**	**More than 20 Times**

How many times have you ever done any of the things listed below to ***people at work***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

How many times have you ever done any of the things listed below to ***acquaintances***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

A	**B**	C	D	E	F	G
Never	**Once**	**Twice**	**3-5 Times**	**6-10 Times**	**11-20 Times**	**More than 20 Times**

How many times have you ever done any of the things listed below to ***strangers***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

How many times have you ever done any of the things listed below to ***ex-wives and ex-girlfriends*?**

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

A	**B**	C	D	E	F	G
Never	**Once**	**Twice**	**3-5 Times**	**6-10 Times**	**11-20 Times**	**More than 20 Times**

How many times have you ever done any of the things listed below to someone ***as part of a job requirement*****?**

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

How many times have you ever done any of the things listed below to someone ***at any other time than those listed above (excluding children in your care and wives/girlfriends)***?

_____ 1. Insulted or swore at someone
_____ 2. Sulked and/or refused to talk about it
_____ 3. Stomped out of the room or house (or yard)
_____ 4. Did or said something to spite someone
_____ 5. Threatened to hit or throw something at someone
_____ 6. Threw or smashed or hit or kicked something
_____ 7. Threw something at someone
_____ 8. Pushed, grabbed, or shoved someone
_____ 9. Slapped someone
_____ 10. Kicked, bit, or hit someone with a fist
_____ 11. Hit or tried to hit someone with something
_____ 12. Beat someone up
_____ 13. Threatened someone with a knife or gun
_____ 14. Used a knife or gun on someone

APPENDIX G

SES

The following questions concern sexual experiences that you may have had. We know that these are personal questions, so we do not ask your name or other identifying information. Your answers are completely confidential. We hope that this helps you to feel comfortable answering each question honestly.

1. **I had oral sex with someone or had someone perform oral sex on me after...**
   Oral sex means contact between the mouth and either the penis or the female genital area.

		How many times in the past 12 months (please circle)?	**How many times since age 14 (please circle)?**	**Was the person you did this with male or female (please circle)?**
a.	I told lies, made promises about the future I knew were untrue, threatened to end the relationship or spread rumors.	0 1 2 3 or more	0 1 2 3 or more	Male Female
b.	I used strong arguments and continual pressure or showed displeasure *(got angry).*	0 1 2 3 or more	0 1 2 3 or more	Male Female
c.	I met someone who had been drinking alcohol or taking drugs and was conscious *but too drunk or out of it* to give consent or stop what was happening.	0 1 2 3 or more	0 1 2 3 or more	Male Female
d.	I threatened to use some degree of physical force.	0 1 2 3 or more	0 1 2 3 or more	Male Female
e.	I used some degree of physical force such as holding someone down with my body weight or pinning his or her arms.	0 1 2 3 or more	0 1 2 3 or more	Male Female

2. **I put my penis, my fingers, or objects *(such as a bottle, or a candle)* into a woman's vagina after** *(Even if the penetration was very slight and you did not ejaculate (cum))...*

		How many times in the past 12 months (please circle)?	**How many times since age 14 (please circle)?**
a.	I told lies, made promises about the future I knew were untrue, threatened to end the relationship or spread rumors.	0 1 2 3 or more	0 1 2 3 or more
b.	I used strong arguments and continual pressure or showed displeasure *(got angry).*	0 1 2 3 or more	0 1 2 3 or more
c.	I met someone who had been drinking alcohol or taking drugs and was conscious *but too drunk or out of it* to give consent or stop what was happening.	0 1 2 3 or more	0 1 2 3 or more
d.	I threatened to use some degree of physical force.	0 1 2 3 or more	0 1 2 3 or more
e.	I used some degree of physical force such as holding someone down with my body weight or pinning his or her arms.	0 1 2 3 or more	0 1 2 3 or more

3. **I put my penis, or my fingers or an object (such as a bottle, or a candle) into someone's anus (butt) after (Even if the penetration was very slight and you did not ejaculate (cum))...**

		How many times in the past 12 months (please circle)?	**How many times since age 14 (please circle)?**	**Was the person you did this with male or female (please circle)?**
a.	I told lies, made promises about the future I knew were untrue, threatened to end the relationship or spread rumors.	0 1 2 3 or more	0 1 2 3 or more	Male Female
b.	I used strong arguments and continual pressure or showed displeasure *(got angry).*	0 1 2 3 or more	0 1 2 3 or more	Male Female
c.	I met someone who had been drinking alcohol or taking drugs and was conscious *but too drunk or out of it* to give consent or stop what was happening.	0 1 2 3 or more	0 1 2 3 or more	Male Female
d.	I threatened to use some degree of physical force.	0 1 2 3 or more	0 1 2 3 or more	Male Female
e.	I used some degree of physical force such as holding someone down with my body weight or pinning his or her arms.	0 1 2 3 or more	0 1 2 3 or more	Male Female

4. **I tried to have oral sex with someone or tried to have them perform oral sex on me <u>but it did not happen</u> after:**

		How many times in the past 12 months (please circle)?	**How many times since age 14 (please circle)?**	**Was the person you did this with male or female (please circle)?**
a.	I told lies, made promises about the future I knew were untrue, threatened to end the relationship or spread rumors.	0 1 2 3 or more	0 1 2 3 or more	Male Female
b.	I used strong arguments and continual pressure or showed displeasure *(got angry).*	0 1 2 3 or more	0 1 2 3 or more	Male Female
c.	I met someone who had been drinking alcohol or taking drugs and was conscious *but too drunk or out of it* to give consent or stop what was happening.	0 1 2 3 or more	0 1 2 3 or more	Male Female
d.	I threatened to use some degree of physical force.	0 1 2 3 or more	0 1 2 3 or more	Male Female
e.	I used some degree of physical force such as holding someone down with my body weight or pinning his or her arms.	0 1 2 3 or more	0 1 2 3 or more	Male Female

5. **I tried to put my penis, my fingers, or objects (such as a bottle or a candle) into a woman's vagina <u>but it did not happen</u> after...**

		How many times in the past 12 months (please circle)?	How many times since age 14 (please circle)?
a.	I told lies, made promises about the future I knew were untrue, threatened to end the relationship or spread rumors.	0 1 2 3 or more	0 1 2 3 or more
b.	I used strong arguments and continual pressure or showed displeasure *(got angry).*	0 1 2 3 or more	0 1 2 3 or more
c.	I met someone who had been drinking alcohol or taking drugs and was conscious *but too drunk or out of it* to give consent or stop what was happening.	0 1 2 3 or more	0 1 2 3 or more
d.	I threatened to use some degree of physical force.	0 1 2 3 or more	0 1 2 3 or more
e.	I used some degree of physical force such as holding someone down with my body weight or pinning his or her arms.	0 1 2 3 or more	0 1 2 3 or more

6. **I tried to put my penis, my fingers, or objects (such as a bottle or a candle) into someone's anus (butt) <u>but it did not happen</u> after...**

		How many times in the past 12 months (please circle)?	**How many times since age 14 (please circle)?**	**Was the person you did this with male or female (please circle)?**
a.	I told lies, made promises about the future I knew were untrue, threatened to end the relationship or spread rumors.	0 1 2 3 or more	0 1 2 3 or more	Male Female
b.	I used strong arguments and continual pressure or showed displeasure *(got angry).*	0 1 2 3 or more	0 1 2 3 or more	Male Female
c.	I met someone who had been drinking alcohol or taking drugs and was conscious *but too drunk or out of it* to give consent or stop what was happening.	0 1 2 3 or more	0 1 2 3 or more	Male Female
d.	I threatened to use some degree of physical force.	0 1 2 3 or more	0 1 2 3 or more	Male Female
e.	I used some degree of physical force such as holding someone down with my body weight or pinning his or her arms.	0 1 2 3 or more	0 1 2 3 or more	Male Female

APPENDIX H

RSVAWS

You and your romantic partners (i.e. wives, girlfriends, etc.) have probably experienced anger or conflict. Below is a list of behaviors you may have done to a partner. Describe how often you have ever done any of the behaviors described below to a romantic partner or had these behaviors done to you by a romantic partner. Remember that all answers will be assigned a number that will not be linked to your identifying information. Please use the following scale:

A	B	C	D
never	once	a few times	many times

	Times I did this to a romantic partner: ↓	*Times a romantic partner did this to me:* ↓	
1.	____	____	Hit or kicked a wall, door or furniture
2.	____	____	Threw, smashed or broke an object
3.	____	____	Driven dangerously with a romantic partner in the car
4.	____	____	Threw an object at a romantic partner
5.	____	____	Shook a finger at a romantic partner
6.	____	____	Made threatening gestures or faces at a romantic partner
7.	____	____	Shook a fist at a romantic partner
8.	____	____	Acted like a bully toward a romantic partner
9.	____	____	Destroyed something belonging to a romantic partner
10.	____	____	Threatened to harm or damage things a romantic partner care about
11.	____	____	Threatened to destroy property
12.	____	____	Threatened someone a romantic partner cared about
13.	____	____	Threatened to hurt a romantic partner
14.	____	____	Threatened to kill himself
15.	____	____	Threatened a romantic partner with a club-like object
16.	____	____	Threatened a romantic partner with a knife or gun
17.	____	____	Threatened to kill a romantic partner
18.	____	____	Threatened a romantic partner with a weapon

Times I did this to a romantic partner: ↓	*Times a romantic partner did this to me:* ↓		*Times I did this to a romantic partner:* ↓	*Times a romantic partner did this to me:* ↓	
19. ____	____	Acted like you wanted to kill a romantic partner	29. ____	____	Slapped a romantic partner with the palm of your hand
20. ____	____	Held a romantic partner down, pinning them in place	30. ____	____	Slapped a romantic partner with the back of your hand
21. ____	____	Pushed or shoved a romantic partner	31. ____	____	Slapped a romantic partner around their face and head
22. ____	____	Shook or roughly handled a romantic partner	32. ____	____	Kicked a romantic partner
23. ____	____	Grabbed a romantic partner suddenly or forcefully	33. ____	____	Hit a romantic partner with an object
24. ____	____	Scratched a romantic partner	34. ____	____	Stomped on a romantic partner
25. ____	____	Pulled a romantic partner's hair	35. ____	____	Choked a romantic partner
26. ____	____	Twisted a romantic partner's arm	36. ____	____	Punched a romantic partner
27. ____	____	Spanked a romantic partner	37. ____	____	Burned a romantic partner with something
28. ____	____	Bit a romantic partner	38. ____	____	Used a club-like object on a romantic partner

Times I did this to a romantic partner: ↓	*Times a romantic partner did this to me:* ↓	
39. ____	____	Beat a romantic partner up
40. ____	____	Used a knife or gun on a romantic partner
41. ____	____	Demanded sex whether a romantic partner wanted to or not
42. ____	____	Made a romantic partner have oral sex against their will
43. ____	____	Made a romantic partner have sexual intercourse against their will
44. ____	____	Physically forced a romantic partner to have sex
45. ____	____	Made a romantic partner have anal sex against their will
46. ____	____	Used an object on a romantic partner in a sexual way

For the items described above, was the romantic partner(s) (please circle)…

Female Male Both

APPENDIX I

LAP

Before you begin this task, please write the page number you are currently working on in the rest of the questionnaire packet: _____

LISTENING TASK

For each of the four musical selections, please circle the number to indicate how much you agree or disagree with the statements.

1=strongly agree; 2= agree; 3=somewhat agree; 4=neither agree nor disagree; 5=somewhat disagree; 6=disagree; 7=strongly disagree

Musical Sample 1							
I like this particular song.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**
My friends like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Musical Sample 2							
I like this particular song.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**
My friends like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Musical Sample 3							
I like this particular song.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**
My friends like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Musical Sample 4							
I like this particular song.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**
My friends like this type of music in general	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Which of the seven tapes available has been selected to be administered to the other participant (please circle)?

Extremely Pleasant	Pleasant	Somewhat Pleasant	Neutral	Somewhat Aversive	Aversive	Extremely Aversive

—OR—

How did the participant rate the additional musical selection (please circle)?

Extremely Pleasant	Pleasant	Somewhat Pleasant	Neutral	Somewhat Aversive	Aversive	Extremely Aversive

APPENDIX J

Experimenter Manual

SET UP

- Survey Room (20E)—setup done by Experimenter 1
  - Place tape sign to room door that reads "Session B"
  - Place the sealed box at the front of the room.
  - Check room for sufficient chairs, space at tables, etc.
  - Get all forms from confederate (subject sign-in w/ clipboard, consents, questionnaires, debriefing questionnaires, and debriefing forms).
  - Bring extra pens to room.
  - Bring blank paper to write down subject numbers for experimenter 2.
  - Forms
    - Check all questionnaire packets. Be sure each is stamped with subject numbers on all pages. Make sure there are 10 packets ready.
    - Check for ten copies of consent form.
    - Check for ten copies of debriefings form.
    - Check for ten copies of debriefing questionnaire.
    - Check for subject sign-in form.
- Experiment Room(20A)—Set up done by Experimenter 2
  - Set up audio tape and headphones on table. Place set of tapes next to this.
  - Check set up of tape player and headphones. Make sure tape is rewound and that tape player is running.
  - Check confederate sample form to ensure presence.
  - Place sign on door that reads "Session C"
- Confederate—go alone to room

INTRODUCTION/INFORMED CONSENT

1. Wait until 5 minutes after scheduled time for all participants to arrive. As participants arrive, have then write name on sign-in form. You will return this form to me to ensure that they receive credit for participation.

2. Experimenter 1 says:

Thank you all for coming today.

This is an experiment that examines musical preferences and their relationship to aggressive behavior. You will be asked to complete two tasks today--answering some questionnaires and completing a listening task. The first thing you will be asked to do is complete some questionnaires that will ask about factors that may influence your musical tastes. Please be assured that all

responses will be kept confidential and that your name or other identifying information will not be connected with your responses. For this reason, we ask that you do not write any identifying information, such as your name or student ID, on the packet of questionnaires that I will give you. You may take as much time as you like to fill out the questionnaires. When you are done, please place your packet in this box. [Indicate the box at the front of the room.] **During the time you are answering the questionnaires, someone will bring you one-by-one to another room where you and another participant from the other group being tested at the same time as this group will complete a musical preferences listening task. While you are filling out the questionnaire, you will see a number that will be used for your data at the top of each page; someone will call this number to ask you to do the listening task. Using numbers allows us to prevent identifying information such as your name or student number to be connected to the confidential information you provide. You will be able to finish answering the questions when you return.**

Before we begin, I will distribute consent forms. Please take time to read through these forms. If you have any questions, please feel free to ask. When you have completed your consent forms, please return them to me.

3. Distribute and then collect all consent forms.

Thank you. I will now distribute the questionnaire packets. Please remember not to place your name or other identifying information anywhere on the packet.

4. Distribute packets of questionnaires to participants.

5. Write down the numbers of the questionnaire packets distributed on a piece of paper and set this outside the door for Experimenter 2.

EXPERIMENT

1. Select Participant Order

   As soon as the list of subject numbers appears outside the door, close your eyes and point at random to the page. Beginning with the number your finger is closest to, call the subject numbers in order (restarting at the top of the page once you reach the end).

2. Call for participants

   Experimenter 2 calls for first participant by stating the following: **Will the person whose packet is stamped with the number ___ please come with me.**

3. Escort the subject to the experiment room.

4. Upon arriving in the room, experimenter 2 states:

   This is [*confederate name***]. Please turn to the last of your packet and write down the page number you were working on when you were called in. (wait for them to do this). First you will both be asked to listen to four 30-second musical samples taken from different genres and asked to respond to three statements about each sample on a 7-point scale ranging from "strongly agree" to "strongly disagree." You may write your responses on the sheet while the samples are playing.**

   Distribute headphones to both participants, being certain the confederate is given the headset marked with red.

   Play tape.

   The confederate will also pretend to complete the listening task.

5. Then, state the following:

   Before you got here, we flipped a coin and [*confederate name*] **was picked to do the listening task. To randomize the piece he/she listens to, we would like you to pick one of these seven tapes to be played** [point to tapes]**. Please feel free to select**

from the full range of tapes, as all tapes must be administered eventually. Please write your selection on the bottom of the page where indicated.

Wait until subject completes this, then excuse him.

DEBREIFING

1. When all subjects have completed questionnaires and experimental protocols, experimenter 1 will debrief then in room 20E.
    - Experimenter 1 states:

    Thank you all for participating in today's experiment. Now that we've finished, I'd like to share some of the details of the experiment with you. First of all, I'd like to ask for some feedback about today's experiment. I'm passing out a separate questionnaire which asks you to indicate whether you feel you know the true purpose of today's experiment. If yes, I'd like you to briefly describe what you thought that was.

    - Distribute sheets. Allow 5 minutes for people to answer these.
    - Collect sheets.
2. Debrief:

    Read the following:

    As you may now have realized, the true purpose of today's experiment was not made clear to you. The purpose of today's study was to learn about how a history of witnessing domestic violence may affect behavior in adulthood. Psychologists are interested in studying this issue because of the high prevalence of domestic violence in our society and the fact that children often witness this violence. It is expected that research in this area will help to inform the development of interventions for children living with domestic violence as well as interventions for adults exposed to domestic violence as children.

One of the hardest things for experimenters to measure is aggressive/violent behavior. Real in-lab observation of aggression is almost never possible because of ethical concerns. Simply asking people abut their tendency to be aggressive or violent not likely to result in valid data because it can be socially stigmatizing to do so. For this reason, we used two ways to measure aggressive behavior today. The first was that we asked you about violent or aggressive things you may have done on questionnaires that you could fill out privately and that we could not tie to a specific person. The second was we measured aggression was using the "listening task". People's selections of the unpleasant or pleasant music for another person to hear are used as an approximation of aggression. Because we needed people to respond as naturally as possible to this situation, we could not tell you of the true purpose of this task.

All the information we collected in today's study will be kept confidential. We are not interested in any one individual's responses; rather, we want to look at the general patterns that emerge when the data are aggregated together.

We are also aware that this study asked some very direct questions about past or current violence you may have done or witnessed. Answering questions such as these may make you feel uncomfortable or upset. If this is the case, please feel free to speak with me privately about your experience. I'm handing out a sheet of paper that goes over most of this information for you to take with you. We do ask that you keep information about this study confidential, as others may be planning to participate in the future.

[Distribute debriefing forms to all participants.]

Thank you again for your participation!

CLEAN UP

Experimenter 1

- **Return box to cabinet.**
- **Place completed questionnaires, consent forms, participation information, and debriefing questionnaires in locked files.**
- **Return "Session B" paper to cabinet.**
- **Go over checklist on inside of cabinet.**
- **Make sure both rooms are locked and return all keys to lock boxes.**

Experimenter 2

- **Rewind sample tape and return to cabinet.**
- **Return tape player and headphones to cabinet.**
- **Return "Session C" paper to cabinet.**
- **Return set of preferences tape to cabinet.**

APPENDIX K

MUSICAL PREFERENCES & RELATIONSHIPS STUDY
CONSENT FORM

This is a study examining college age males' experiences of relationships between men and women as well as their musical preferences. If you choose to participate in the study we will be asking you to complete two parts, surveys and a listening task. In the first part, you will be asked to fill out some questionnaires about things about your friends, family, personal experiences, and personal beliefs. We will be asking about both other relationships you observed as a child as well as your own relationships in adulthood. The second part of the study will be a listening task, in which you will listen to several musical selections and be asked to answer questions about them.

To ensure the confidentiality of the information you provide for us, we will be collecting information from you without your name or other identifying information. If you choose to participate in the study today, you will be provided with forms to fill out that have been pre-stamped with a subject number on each page. We will use this subject number for our records and will not keep a record of which subject number goes with which participant. To ensure the confidentiality of this process, we ask that you do not write your name or subject number anywhere on the packet. The study will take 1 minutes to 1 ½ hours to complete. Three ½ hour credits for research participation are available toward psychology course requirements. Records of participation for research credit will be kept separate from the information you provide and will not contain your subject number for the project.

Some of the questions we ask may seem very blunt or graphic. You have the right to refuse to answer any questions or to withdraw from this study at any point with no penalty or negative consequences. Your decision about whether to participate or not will not affect your relationship with any agencies or Michigan State University. If you have any questions, please ask us. If you have any questions about the study later, you can contact Dr. Anne Bogat at (517) 353-0812. If you have questions about your rights as a participant in this research study you may contact Dr. Peter Vasilenko at (517) 355-2180.

I have read this form and agree to participate.

_____	_____	_____
Signature of Participant	Print Name	Date
_____		_____
Witness		Date

Anne Bogat, Ph.D.
107E Psychology Building
Michigan State University
Department of Psychology

Peter Vasilenko, Ph.D.
202 Olds Hall
Michigan State University
East Lansing, MI 48824

APPENDIX L

Musical Preferences

We would like to get a general sense of the types of musical you enjoy. We are also interested in how these compare to the musical tastes of people you are romantically involved with. Below are two lists of seven types of music that people listen to. Please rank how much you enjoy these types of music. We would also like you to provide us with your best guess about how your most recent or current romantic partner (i.e. your current girlfriend or most recent ex-girlfriend) would rank these types of music.

Please rank how much you like the following musical genres from 1 (favorite) to 7 (least favorite).

____Classical

____Jazz

____Rap/Hip-Hop

____R&B

____Alternative

____Oldies

____World music

Please rank the musical preferences of your current or most recent romantic partner from 1 (favorite) to 7 (least favorite). If you are not sure, make your best guess.

____Classical

____Jazz

____Rap/Hip-Hop

____R&B

____Alternative

____Oldies

____World music

APPENDIX M

FOLLOW-UP

Thank you for your participation in the study today. The purpose of today's study was to learn about how a history of witnessing domestic violence may affect behavior in adulthood. Psychologists are interested in studying this issue because of the high prevalence of domestic violence in our society and the fact that children often witness this violence. It is expected that research in this area will help to inform the development of interventions for children living with domestic violence as well as interventions for adults exposed to domestic violence as children.

One of the hardest things for experimenters to measure is aggressive/violent behavior. Real in-lab observation of aggression is almost never possible because of ethical concerns. Simply asking people abut their tendency to be aggressive or violent is not likely to result in valid data because it can be socially stigmatizing to do so. For this reason, we used two ways to measure aggressive behavior today. The first was that we asked you about violent or aggressive things you may have done on questionnaires that you could fill out privately and that we could not tie to a specific person. The second way we measured aggression was using the "listening task". People's selections of the unpleasant or pleasant music for another person to hear are used as an approximation of aggression. Because we needed people to respond as naturally as possible to this situation, we could not tell you of the true purpose of this task.

All the information we collected in today's study will be kept confidential. We are not interested in any one individual's responses; rather, we want to look at the general patterns that emerge when the data are aggregated together.

If you have any questions about your participation in the study today, you can contact Dr. G. Anne Bogat at (517) 353-0812. If you have questions about your rights as a participant in this research study you may contact Dr. Peter Vasilenko at (517) 355-2180. We are also aware that this study asked some very direct questions about past or current violence you may have done or witnessed. Answering questions such as these may make you feel uncomfortable or upset. If your participation in the experiment today has caused you to experience concerns, anxiety or otherwise distressed you and you feel you could benefit from discussing these concerns with a psychotherapist, MSU students may contact the MSU Counseling Center at (517) 355-8270.

Thank you again for your participation!

APPENDIX N

MUSICAL PREFERENCES & RELATIONSHIPS ON-LINE STUDY
CONSENT FORM

This is a study examining college age males' experiences of relationships between men and women as well as their musical preferences. To be eligible to participate in this study, you must be a male who has had or currently has a romantic relationship with a female that lasted for at least one month. If you choose to participate in the study we will be asking you to complete survey questions related to musical preferences. You will be asked to fill out some questionnaires about things about your friends, family, personal experiences, and personal beliefs. We will be asking about both other relationships you observed as a child as well as your own relationships in adulthood.

To ensure the confidentiality of the information you provide for us, we will be collecting information from you without your name or other identifying information. Data will be transmitted to the experimenter without your name or any other identifying information (such as student identification number). The study will take 45 minutes to 1 hour to complete. Two ½-hour credits for research participation are available toward psychology course requirements.

The following risks and benefits may arise as a result of your participation in this study. As a result of your participation in this research project, you are expected to benefit educationally by gaining direct knowledge of how psychology research is conducted. Your participation in this research is also expected to contribute to the understanding of how men and women interact in romantic relationships. Some of the questions we ask may seem very blunt or graphic. It is possible that you may experience distress as a result of answering the more sensitive questions on the questionnaires.

You have the right to refuse to answer any questions or to withdraw from this study at any point with no penalty or negative consequences. Your decision about whether to participate or not will not affect your relationship with any agencies or Michigan State University. If you have any questions, please ask us. If you have any questions about the study later, you can contact Dr. Anne Bogat at (517) 353-0812 via e-mail at bogat@msu.edu or at 107E Psychology Building, Michigan State University, Department of Psychology, East Lansing, MI 48824. If you have questions about your rights as a participant in this research study you may contact Dr. Peter Vasilenko at (517) 355-2180, via e-mail at UCRIHS@msu.edu, or at 202 Olds Hall, Michigan State University, East Lansing, MI 48824.

If you have read this consent form and agree to participate in the study, please click where indicated below.

☐ I have read this form and agree to participate.

APPENDIX O

MUSICAL PREFERENCES & RELATIONSHIPS ON-LINE STUDY
FOLLOW-UP

Thank you for your participation in the study today. The purpose of today's study was to learn about how a history of witnessing domestic violence may affect behavior in adulthood. Psychologists are interested in studying this issue because of the high prevalence of domestic violence in our society and the fact that children often witness this violence. It is expected that research in this area will help to inform the development of interventions for children living with domestic violence as well as interventions for adults exposed to domestic violence as children.

The reason we were not able to tell you the true purpose of the experiment was that the on-line survey you completed is part of a larger research study. In this larger study, we used an in-lab experiment to measure aggression. Real in-lab observation of aggression is almost never possible because of ethical concerns. Simply asking people abut their tendency to be aggressive or violent is not likely to result in valid data because it can be socially stigmatizing to do so. In the in-lab procedure, participants in the study completed a "listening task". People were brought into a room with another person, an experimenter pretending to be another subject in the experiment (called a "confederate"). Participants were asked to select an audiotape for the confederate to listen to. People's selections of the unpleasant or pleasant music for another person to hear were used as an approximation of aggression. Because we needed people to respond as naturally as possible to this situation, we could not tell them of the true purpose of this task. Because we want your responses to survey questions to be able to be combined with those from the in-lab experiment, we could not tell you the true purpose of the experiment either.

All the information we collected in today's study will be kept confidential. We are not interested in any one individual's responses; rather, we want to look at the general patterns that emerge when the data are aggregated together.

If you have any questions about your participation in the study today, you can contact Dr. G. Anne Bogat at (517) 353-0812. If you have questions about your rights as a participant in this research study you may contact Dr. Peter Vasilenko at (517) 355-2180. We are also aware that this study asked some very direct questions about past or current violence you may have done or witnessed. Answering questions such as these may make you feel uncomfortable or upset. If your participation in the experiment today has caused you to experience concerns, anxiety or otherwise distressed you and you feel you could benefit from discussing these concerns with a psychotherapist, MSU students may contact the MSU Counseling Center at (517) 355-8270.

Thank you again for your participation!

APPENDIX P

LISREL Syntax for Direct Models

Direct Model Bidirectional Group

```
DA NI=36 NO=250
RA= bidir.psf
LA
GENDER      ETHNIT   FAMILYIN    AGE        RELSTAT
RSVAWSPG    MRSVAPA  MRSVAPB    FRSVAPA    FRSVAPB
HGIS        HS       RRMAS      GVQGANG    GVQFAM
GVQMFR      GVQFFR   GVQWORK    GVQACQ     GVQSTRAN
GVQEXES     GVQJOB   GVQOTHER   SESY   SESL
MRSVAWSA    MRSVAWSB FRSVAWSA   FRSVAWSB   DISCR
ABSDISCR    MTOF     FTOM       ADMTOF  ADFTOM
GVQSUM
SE
21 34 25 36 7 8 9 10/
MO NX=4 NK=1 NY=4 NE=1 lx=fu,fr ly=fu,fr td=sy,fi te=sy,fi ga=fu,fi
FR td 1 1 td 2 2 td 3 3 td 4 4
FR te 1 1 te 2 2 te 3 3 te 4 4
fr td 3 1
fr td 2 1
fr te 4 2
fr te 4 3
fr ga 1 1
LK
cipv
LE
genviol
PD
OU mi rs me=ml ad=off
```

Covariance Matrix

	GVQEXES	ADMTOF	SESL	GVQSUM	MRSVAPA	MRSVAPB
GVQEXES	82.63					
ADMTOF	57.28	96.33				
SESL	47.99	74.27	156.28			
GVQSUM	401.71	371.09	348.36	5209.63		
MRSVAPA	11.85	15.46	8.29	103.90	22.93	
MRSVAPB	25.51	54.28	45.62	307.94	29.39	108.60
FRSVAPA	10.32	12.20	7.46	102.44	17.93	27.51
FRSVAPB	25.42	54.25	46.05	324.65	28.43	107.97

Covariance Matrix

	FRSVAPA	FRSVAPB
FRSVAPA	18.94	
FRSVAPB	27.40	109.26

Direct Model Unidirectional F to M group

```
DA NI=36 NO=154
 RA= unidirFtoM.psf
 LA
 GENDER      ETHNIT    FAMILYIN    AGE        RELSTAT
 RSVAWSPG    MRSVAPA   MRSVAPB     FRSVAPA    FRSVAPB
 HGIS        HS        RRMAS       GVQGANG    GVQFAM
 GVQMFR      GVQFFR    GVQWORK     GVQACQ     GVQSTRAN
 GVQEXES     GVQJOB    GVQOTHER    SESY   SESL
 MRSVAWSA    MRSVAWSB  FRSVAWSA    FRSVAWSB   DISCR
 ABSDISCR    MTOF      FTOM        ADMTOF  ADFTOM
 GVQSUM
 SE
 21 34 25 36 7 8 9 10/
 MO NX=4 NK=1 NY=4 NE=1 lx=fu,fr ly=fu,fr td=sy,fi te=sy,fi ga=fu,fi
 VA 0 lx (1,1)
 FR td 1 1 td 2 2 td 3 3 td 4 4
 FR te 1 1 te 2 2 te 3 3 te 4 4
 fr td 3 1
 fr td 2 1
 fr te 4 2
 fr te 4 3
 fr ga 1 1
 LK
 cipv
 LE
 genviol
 PD
 OU mi rs me=ml ad=off
```

Covariance Matrix

	GVQEXES	ADMTOF	SESL	GVQSUM	MRSVAPA	MRSVAPB
GVQEXES	97.12					
ADMTOF	55.91	202.41				
SESL	39.93	60.43	208.19			
GVQSUM	587.21	527.63	342.41	8130.51		
MRSVAPA	12.36	23.10	0.54	183.94	30.57	
MRSVAPB	33.54	66.66	43.86	393.90	40.71	137.59
FRSVAPA	8.58	21.41	2.30	169.28	21.38	28.53
FRSVAPB	41.22	72.75	44.99	537.95	43.82	148.65

Covariance Matrix

	FRSVAPA	FRSVAPB
FRSVAPA	27.63	
FRSVAPB	34.99	182.37

Direct Model Unidirectional M to F group

```
DA NI=36 NO=103
RA= unidirMtoF.psf
LA
GENDER      ETHNIT    FAMILYIN    AGE         RELSTAT
RSVAWSPG    MRSVAPA   MRSVAPB     FRSVAPA     FRSVAPB
HGIS        HS        RRMAS       GVQGANG     GVQFAM
GVQMFR      GVQFFR    GVQWORK     GVQACQ      GVQSTRAN
GVQEXES     GVQJOB    GVQOTHER    SESY   SESL
MRSVAWSA    MRSVAWSB  FRSVAWSA    FRSVAWSB    DISCR
ABSDISCR    MTOF      FTOM        ADMTOF  ADFTOM
GVQSUM
SE
21 34 25 36 7 8 9 10/
MO NX=4 NK=1 NY=4 NE=1 lx=fu,fr ly=fu,fr td=sy,fi te=sy,fi ga=fu,fi
FR td 1 1 td 2 2 td 3 3 td 4 4
FR te 1 1 te 2 2 te 3 3 te 4 4
fr td 2 1
fr td 3 1
fr te 4 2
fr te 4 3
fr ga 1 1
LK
cipv
LE
genviol
PD
OU mi rs me=ml ad=off
```

Covariance Matrix

	GVQEXES	ADMTOF	SESL	GVQSUM	MRSVAPA	MRSVAPB
GVQEXES	78.26					
ADMTOF	66.05	136.32				
SESL	40.37	64.89	87.65			
GVQSUM	399.31	408.86	284.15	5598.29		
MRSVAPA	2.38	0.49	-0.45	56.62	26.47	
MRSVAPB	21.36	38.63	18.36	239.34	29.00	176.89
FRSVAPA	2.11	-1.31	1.44	47.21	18.10	36.77
FRSVAPB	11.60	29.01	9.61	181.15	20.64	137.70

Covariance Matrix

	FRSVAPA	FRSVAPB
FRSVAPA	22.53	
FRSVAPB	32.14	126.54

APPENDIX Q

LISREL Syntax for Mediated Models

Mediated Model Bidirectional Group

```
 DA NI=36 NO=250
 RA= bidir.psf
 LA
 GENDER      ETHNIT   FAMILYIN    AGE        RELSTAT
 RSVAWSPG    MRSVAPA  MRSVAPB    FRSVAPA    FRSVAPB
 HGIS        HS       RRMAS      GVQGANG    GVQFAM
 GVQMFR      GVQFFR   GVQWORK    GVQACQ     GVQSTRAN
 GVQEXES     GVQJOB   GVQOTHER   SESY   SESL
 MRSVAWSA    MRSVAWSB FRSVAWSA   FRSVAWSB   DISCR
 ABSDISCR    MTOF     FTOM       ADMTOF  ADFTOM
 GVQSUM
 SE
 11 12 13 21 25 34 7 8 9 10/
 MO NX=4 NK=1 NY=6 NE=2 lx=fu,fr ly=fu,fi td=sy,fi te=sy,fi ga=fu,fi
be=fu,fi  ps=sy,fi
 FR td 1 1 td 2 2 td 3 3 td 4 4
 FR td 1 2
 fr td 1 3
 !freed because high modification index and parallel items
 FR te 1 1 te 2 2 te 3 3 te 4 4 te 5 5 te 6 6
 PA LY
 3(1 0) 3(0 1)
 fr ga 1 1
 !drop above line for direct model
 fr ga 2 1
 !drop above line for mediated only model
 fr be 2 1
 !drop above line for direct model
 fr ps 1 1 ps 2 2
 LK
 cipv
 LE
 atgen avaw
 PD
 OU mi rs me=ml ef ad=off
```

Mediated Model Bidirectional Group

Covariance Matrix

	HGIS	HS	RRMAS	GVQEXES	SESL	ADMTOF
HGIS	1107.98					
HS	224.96	90.35				
RRMAS	305.19	71.81	181.87			
GVQEXES	41.02	14.26	13.44	82.63		
SESL	150.19	24.51	60.58	47.99	156.28	
ADMTOF	83.62	18.60	30.16	57.28	74.27	96.33
MRSVAPA	19.97	5.87	7.75	11.85	8.29	15.46
MRSVAPB	68.39	12.12	24.99	25.51	45.62	54.28
FRSVAPA	16.73	5.21	6.69	10.32	7.46	12.20
FRSVAPB	67.12	12.25	25.32	25.42	46.05	54.25

Covariance Matrix

	MRSVAPA	MRSVAPB	FRSVAPA	FRSVAPB
MRSVAPA	22.93			
MRSVAPB	29.39	108.60		
FRSVAPA	17.93	27.51	18.94	
FRSVAPB	28.43	107.97	27.40	109.26

Mediated Model Unidirectional F to M group

```
 DA NI=36 NO=154
 RA= unidirFtoM.psf
 LA
 GENDER      ETHNIT   FAMILYIN    AGE        RELSTAT
 RSVAWSPG    MRSVAPA  MRSVAPB    FRSVAPA    FRSVAPB
 HGIS        HS       RRMAS      GVQGANG    GVQFAM
 GVQMFR      GVQFFR   GVQWORK    GVQACQ     GVQSTRAN
 GVQEXES     GVQJOB   GVQOTHER   SESY   SESL
 MRSVAWSA    MRSVAWSB FRSVAWSA   FRSVAWSB   DISCR
 ABSDISCR    MTOF     FTOM       ADMTOF  ADFTOM
 GVQSUM
 SE
 11 12 13 21 25 34 7 8 9 10/
 MO NX=4 NK=1 NY=6 NE=2 lx=fu,fr ly=fu,fi td=sy,fi te=sy,fi ga=fu,fi
be=fu,fi  ps=sy,fi
 FR td 1 1 td 2 2 td 3 3 td 4 4
 FR td 1 3
 FR td 1 2
 !freed because high modification index and parallel items
 FR te 1 1 te 2 2 te 3 3 te 4 4 te 5 5 te 6 6
 PA LY
 3(1 0) 3(0 1)
 fr ga 1 1
 !drop above line for direct model
 fr ga 2 1
 !drop above line for mediated only model
 fr be 2 1
 !drop above line for direct model
 fr ps 1 1 ps 2 2
 LK
 cipv
 LE
 atgen avaw
 PD
 OU mi rs me=ml ef ad=off
```

Mediated Model Unidirectional M to F group

Covariance Matrix

	HGIS	HS	RRMAS	GVQEXES	SESL	ADMTOF
HGIS	986.97					
HS	178.12	77.67				
RRMAS	281.80	61.57	200.29			
GVQEXES	63.39	13.23	18.52	97.12		
SESL	162.51	12.82	42.88	39.93	208.19	
ADMTOF	133.05	22.11	12.55	55.91	60.43	202.41
MRSVAPA	20.43	-0.16	1.58	12.36	0.54	23.10
MRSVAPB	102.66	-0.04	27.21	33.54	43.86	66.66
FRSVAPA	0.23	-0.63	-2.42	8.58	2.30	21.41
FRSVAPB	117.17	5.98	31.51	41.22	44.99	72.75

Covariance Matrix

	MRSVAPA	MRSVAPB	FRSVAPA	FRSVAPB
MRSVAPA	30.57			
MRSVAPB	40.71	137.59		
FRSVAPA	21.38	28.53	27.63	
FRSVAPB	43.82	148.65	34.99	182.37

Mediated Model Unidirectional M to F group

```
 DA NI=36 NO=103
 RA= unidirMtoF.psf
 LA
 GENDER      ETHNIT    FAMILYIN     AGE         RELSTAT
 RSVAWSPG    MRSVAPA   MRSVAPB     FRSVAPA     FRSVAPB
 HGIS        HS        RRMAS       GVQGANG     GVQFAM
 GVQMFR      GVQFFR    GVQWORK     GVQACQ      GVQSTRAN
 GVQEXES     GVQJOB    GVQOTHER    SESY   SESL
 MRSVAWSA    MRSVAWSB  FRSVAWSA    FRSVAWSB    DISCR
 ABSDISCR    MTOF      FTOM        ADMTOF  ADFTOM
 GVQSUM
 SE
 11 12 13 21 25 34 7 8 9 10/
 MO NX=4 NK=1 NY=6 NE=2 lx=fu,fr ly=fu,fi td=sy,fi te=sy,fi ga=fu,fi
be=fu,fi  ps=sy,fi
 FR td 1 1 td 2 2 td 3 3 td 4 4
 FR td 1 3
 FR td 1 2
 !freed because high modification index and parallel items
 FR te 1 1 te 2 2 te 3 3 te 4 4 te 5 5 te 6 6
 PA LY
 3(1 0) 3(0 1)
 fr ga 1 1
 !drop above line for direct model
 fr ga 2 1
 !drop above line for mediated only model
 fr be 2 1
 !drop above line for direct model
 fr ps 1 1 ps 2 2
 LK
 cipv
 LE
 atgen avaw
 PD
 OU mi rs me=ml ef ad=off
```

Mediated Model Unidirectional M to F group

Covariance Matrix

	HGIS	HS	RRMAS	GVQEXES	SESL	ADMTOF
HGIS	1151.04					
HS	240.22	93.69				
RRMAS	359.10	78.68	224.56			
GVQEXES	57.72	17.99	20.79	78.26		
SESL	107.88	28.46	31.11	40.37	87.65	
ADMTOF	87.45	26.35	46.38	66.05	64.89	136.32
MRSVAPA	-6.50	-8.07	-2.24	2.38	-0.45	0.49
MRSVAPB	17.17	-3.15	9.15	21.36	18.36	38.63
FRSVAPA	-15.23	-9.39	-9.33	2.11	1.44	-1.31
FRSVAPB	-15.26	-13.45	1.94	11.60	9.61	29.01

Covariance Matrix

	MRSVAPA	MRSVAPB	FRSVAPA	FRSVAPB
MRSVAPA	26.47			
MRSVAPB	29.00	176.89		
FRSVAPA	18.10	36.77	22.53	
FRSVAPB	20.64	137.70	32.14	126.54

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