4-20-2010

He Said, She Said: (Dis)agreement about the Occurrence of Intimate Partner Violence among Young Adult Couples

HarmoniJoie Noel
University of Nebraska at Lincoln, hnoel3@gmail.com

HE SAID, SHE SAID: (DIS)AGREEMENT ABOUT THE OCCURRENCE OF INTIMATE PARTNER VIOLENCE AMONG YOUNG ADULT COUPLES

by

HarmoniJoie Noel

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Major: Sociology

Under the Supervision of Professor Kimberly A. Tyler

Lincoln, Nebraska

May, 2010

HE SAID, SHE SAID: (DIS)AGREEMENT ABOUT THE OCCURRENCE OF INTIMATE PARTNER VIOLENCE AMONG YOUNG ADULT COUPLES

HarmoniJoie Noel, Ph.D.

University of Nebraska, 2010

Advisor: Kimberly A. Tyler

Using a sample of 1,269 dating, cohabitating, and married young adult couples, my dissertation explores the extent of disagreement about violence between heterosexual romantic partners, how the prevalence and common predictors of intimate partner violence (IPV) change because of disagreement, and how errors in the cognitive response process can explain disagreement. Disagreement occurs when one partner reports physical violence in their relationship but the other partner does not. Male and female-perpetrated violence are analyzed separately because disagreement may operate differently for these two types of violence. As a result of disagreement among partners, estimates of violence based on individual assessments may be unreliable and potentially could produce biased results. Having accurate estimates of the prevalence of partner violence is important, for example, because many social policy and funding decisions are based on the magnitude of the problem. For instance, greater or fewer resources could be devoted to services that help victims of partner violence depending on the perceived need. Results from my study show that disagreement about relationship violence is substantial and does have an effect on the prevalence of reported violence and conclusions about some common predictors of IPV. This means that previous findings using proxy data (i.e. one-partner data) may not adequately represent the couple and may be different from those studies that use couple data. In addition, some patterns of overreporting and underreporting IPV are a result of breakdowns in the cognitive response process. By identifying and understanding the causes of disagreement the goal of my dissertation is to help survey methodologists and partner violence researchers work towards reducing or accounting for disagreement in order to improve the accuracy and reliability of estimates for intimate partner violence.

Acknowledgements

My dissertation is the culmination of my graduate career and looking back I have fond memories of working hard to develop myself as a sociologist and methodologist, challenging myself to meet my goals and do my very best, and building professional and personal relationships that will hopefully last a lifetime. Earning my doctorate is a major accomplishment but I did not do it alone; I have had a team of supporters behind me all along.

There is one person that has had more of an impact on my dissertation and my graduate career than anyone else. I would like to extend special thanks to my Advisor, Dr. Kimberly Tyler, for her encouragement, advice, and guidance through the past five years. She has always pushed me to succeed and meet my goals. Over the years she has been an academic role model and friend.

I have also been blessed with a fantastic dissertation committee. I would like to thank Dr. Christina Falci, Dr. Kristen Olson, Dr. Helen Moore, and Dr. David DiLillo for serving on my dissertation committee. I could not have done this without them. I greatly appreciated their support of my research, willingness to provide advice or answer questions, and their helpful feedback that improved my dissertation. Dr. Christina Falci has been particularly important in my development as a scholar because of the skills I learned as her research assistant. I have Dr. Kristen Olson to thank for introducing me to the Survey Research and Methodology program which has had a profound influence on shaping my future career path.

I would also like to thank the University of Nebraska-Lincoln Sociology Department for providing a nurturing environment for me to grow as a scholar. Through the department's financial support I was able to get the contract for my dissertation data. I would also like to thank the Ogle family for the full academic fellowship that allowed me to finish my dissertation.

Last but certainly not least, I would like to thank my family and friends who have supported me through my whole life and this most recent accomplishment. My parents have been my biggest fans and their pride and encouragement keeps me going. From the twisty slide when I was three to my doctorate at twenty-seven they have always been saying, "You can do it! Go for it!" and I know I will hear them say this for many years to come. Grant and Freckles have kept me sane through this whole process with their playful personalities, necessary distractions, and ability to make me laugh.

To sum up what this experience has meant to me my brother Brandon said it best: The number of sleepless nights studying…countless. The amount of early coffee breaks…20. The pride in being a ninja doctor…priceless. THANK YOU ALL!

Table of Contents

Title Page……. i

Abstract……... ii

Acknowledgements……. iii

Table of Contents…… iv

List of Figures, Tables, and Graphs……. v

Chapter 1: Introduction…… 1

Chapter 2: Theoretical Explanations and Literature Review……... 7

Chapter 3: Methodology…….. 51

Chapter 4: Results…… 62

Chapter 5: Discussion and Conclusion…… 98

References……... 121

Figures, Tables, and Graphs…… 140

Appendix……. 160

List of Figures, Tables, and Graphs

Figure 1: Add Health Study Design…… 51
Figure 2: Add Health Sample Design……. 53
Figure 3: Cross-tabulations of Male and Female Reports of MPV and FPV …..... 65
Figure 4: Hypotheses for Predictors of MPV and FPV…….. 145
Figure 5: Hypotheses for Multinomial Logistic Regressions for MPV ……. 147
Figure 6: Hypotheses for Multinomial Logistic Regressions for FPV …….. 151
Table 1: Cross-tabulations of Male and Female Reports of MPV and FPV ……. 140
Table 2: Patterns of Predictors of MPV and FPV ……. 146
Table 3: Bivariate Multinomial Logistic Regression Models for MPV ……..... 148
Table 4: Blocked Multinomial Logistic Regression Models for MPV ……. 149
Table 5: Full Multinomial Logistic Regression Models for MPV ……..... 150
Table 6: Bivariate Multinomial Logistic Regression Models for FPV ……..... 152
Table 7: Blocked Multinomial Logistic Regression Models for FPV …….. 153
Table 8: Full Multinomial Logistic Regression Models for FPV ……..... 154
Table 9: Commitment Interaction Predicting Female Underreport Victim……... 155
Table 10: Unemployment and Commitment Interactions Predict Female Underreport Perpetration…… 156
Graph 1: Prevalence of Male-Perpetrated Violence……... 141
Graph 2: (Dis)agreement about Male-Perpetrated Violence…….. 142
Graph 3: Prevalence of Female-Perpetrated Violence…… 143
Graph 4: (Dis)agreement about Female-Perpetrated Violence……... 144
Graph 5: Effect Female Commitment on Female Underreport Victimization by Male Commitment..... 157
Graph 6: Effect Female Unemployment on Female Underreport Perpetration by Male Unemployment…….. 158
Graph 7: Effect Female Commitment on Female Underreport Perpetration by Male Commitment ……. 159

Notes: MPV = Male-Perpetrated Partner Violence. FPV = Female-Perpetrated Partner Violence.

CHAPTER 1: INTRODUCTION

Intimate partner violence (IPV) is a serious social problem that affects millions of people each year (Tjaden and Thoennes 2000). It is also a very sensitive and controversial topic with many theoretical and methodological challenges for research. For instance, there is an ongoing debate between researchers about the amount of violence that men and women commit in heterosexual relationships. Previous findings have been inconsistent; some studies find men are more violent than women (Dobash et al. 1992; Schwartz and DeKeseredy 1993), while others show women are slightly more violent (Archer 2000; Melton and Belknap 2003; Straus 1993). Some of these inconsistencies may be due to gender differences in the reporting of violence. For example, men may be less willing to report perpetrating violence because of the stigma associated with hitting a woman in our society (Szinovacz and Egley 1995).

Much of the data on IPV comes from individual reports from one partner describing his or her perpetration and victimization with the assumption that the other partner would agree. Proxy reports are often used to save costs (Mathiowetz and Groves 1985), even though it is assumed that self reports are more accurate than proxy reports (O'Muircheartaigh 1991). The empirical findings, however, are mixed (Moore 1988). In the case of a shared experience, such as intimate partner violence, both partners should theoretically make the same report. Research shows, however, that many couples disagree (Armstrong et al. 2002; Schafer, Caetano, and Clark 2002). Disagreement occurs, for example, when a male reports perpetrating physical violence against his partner, but his partner does not report being victimized. As a result of discrepant partner

reports of violence, estimates of partner violence based on individual assessments may be unreliable and potentially could produce biased results.

Most studies on discrepant reports of partner violence are descriptive. As such, very little research has looked at the impact of disagreement on predictors of partner violence. Of those studies that have, there is an indication that results differ (e.g., the significance of predictors changes) when comparing one-partner and couple level reports that take into account disagreement (Schafer et al. 2002; Szinovacz and Egley 1995). These results suggest that one-partner reports should be interpreted with caution and additional research using couple level data should be conducted to understand more about the causes and consequences of disagreement.

The underlying question is why do partners disagree about violence in their relationship? Researchers have theorized that disagreement about partner violence is due to response bias, usually in the form of social desirability where perpetrators underreport partner violence because it is stigmatized by society. While most studies offer explanations for disagreement post-hoc, only a few studies have examined predictors of underreporting violence (Anderson 1997; Szinovacz and Egley 1995). Although response bias is a plausible explanation for disagreement about partner violence, there are other possible explanations such as memory or comprehension issues. Previous studies do not synthesize the various reasons for disagreement into a coherent theoretical framework or examine the mechanisms behind disagreement without making the assumption that social desirability is the only cause of disagreement. As such, my study applies a framework derived from methodological research on how respondents answer survey questions in order to understand discrepant partner reports of violence.

The *cognitive response process* (Tourangeau, Rips, and Rasinski 2000) has been used in the survey methodology literature to describe how respondents answer survey questions. To answer a question about the frequency of a particular behavior respondents must have some retrievable memory of the behavior, understand what the question is asking, make a judgment about how what they recall fits into the given response options, and finally decide whether they are going to modify their response before reporting a final answer. Breakdowns or differences in how men and women answer survey questions may help explain disagreement about the occurrence of partner violence. Studying the cognitive response process is important because gender differences in the prevalence of violence found in studies based on one-partner reports may be confounded with gender differences in reporting (i.e. under or overreporting violence) and therefore lead to erroneous conclusions about who is more violent and the prevalence of IPV. By identifying and understanding the causes of disagreement, survey methodologists and partner violence researchers can work to reduce or account for disagreement in order to improve the accuracy and reliability of estimates for partner violence.

Having consistent results of the prevalence of violence across studies is important for future research and policy decisions on this topic. For instance, if there are a substantial number of couples who disagree, then whether the female or male partner is interviewed could have a significant impact on the population prevalence estimates of partner violence. Knowing the prevalence of partner violence is important because many social policy and funding decisions are based on the magnitude of the problem. As an example, additional or fewer resources could be devoted to services that help victims of partner violence depending on the perceived need. Substantial disagreement also means

that estimates based on one-partner reports may be biased in unknown ways because the assumption that both partners would make the same report is violated. Alternatively, if disagreement is not that common and does not affect results for predictors of partner violence, then using less expensive one-partner reports may be justifiable. Most large-scale studies that ask about partner violence only interview one of the partners because it is less expensive than interviewing both partners of a couple (Armstrong et al. 2002). It would be useful to know if results using one-partner reports are similar to couple reports because then we would have more confidence in the majority of research done on partner violence that uses one-partner reports. Additionally, we would have more confidence that differences across studies are true differences and not related to whether one-partner or couple data was used.

To my knowledge research on partner violence and survey methodological approaches to measurement error have not been explicitly combined. As such, my study adds to the existing literature by applying proxies for breakdowns in the stages of the cognitive response process used in the survey methodology literature to the study of IPV to explain why romantic partners disagree about relationship violence. My study also contributes to the literature on IPV in other important ways. First, I use a large, national sample of couples that to my knowledge has not previously been used to examine disagreement about partner violence. Second, the sample I use is unique because it focuses on young adulthood, which is a life stage particularly susceptible to partner violence (Caetano, Vaeth, Ramisetty-Mikler 2008). Third, my study goes beyond simple descriptive statistics of disagreement by measuring the effect that disagreement has on common predictors of IPV. Additionally, my study makes a contribution to the survey

methodology literature by testing proxies of the cognitive response process in the context of secondary data, which has rarely been done.

Using a national sample (n = 1,269) of dating, cohabitating, and married heterosexual young adults, I seek to answer the following three research questions. First, how much disagreement is there between partners and what effect does this have on the prevalence of reported violence found in this sample? Second, do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used? Third, how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence?

This dissertation includes five chapters. Chapter 1 introduces IPV as a serious social problem and describes the importance of studying disagreement among partners. In addition, I introduce the cognitive response process as a potentially useful mechanism for understanding discrepant partner reports of violence. Because I seek to combine two separate bodies of literature with their own relevant theories (i.e. partner violence literature and the survey methodology literature on the cognitive response process), Chapter 2 combines both the theoretical explanations and literature review for predictors of IPV, disagreement in reports of IPV, and the cognitive response process. Chapter 3 (Methodology) provides a description of the data, sample, and measures used to answer my research questions. Chapter 4 (Results) is organized according to my three research questions. Procedures used to test each research question are followed by the analytic results. Chapter 5 (Discussion/Conclusion) includes a summary of the results found for each research question, the strengths and limitations of the dissertation, and suggestions for future research. In addition, based on the findings from this dissertation there is a

discussion of the implications for theories of IPV, service providers who interact more closely with couples experiencing IPV, and researchers in the area of IPV and survey methodology.

CHAPTER 2: THEORETICAL EXPLANATIONS AND LITERATURE REVIEW

I draw on two separate literatures (partner violence and survey methodology) to generate the common predictors of IPV and the predictors of disagreement among couples regarding the occurrence of IPV. Within the partner violence literature, I make use of the feminist perspective and the family violence perspective to generate the predictors of IPV. Although numerous theories have been used to explain IPV, the feminist and family violence perspectives are the most commonly utilized sociological frameworks. A debate regarding the role of gender and perpetration continues between researchers utilizing these two perspectives. For example, many researchers using the feminist perspective find that men are more violent (Schwartz and DeKeseredy 1993), while family violence researchers find that men and women have similar rates of violence (Straus 1993). This debate will be described in further detail below. From the survey methodology literature, I draw on the cognitive response process to explain discrepancies between partners' reports about the occurrence of IPV.

To my knowledge, the partner violence and measurement error literatures have not been explicitly combined. As such, my study makes a contribution to both literatures by applying the cognitive response process used in the measurement error literature to the study of IPV to explain why romantic partners disagree about relationship violence. To begin, I will first discuss the most common perspectives (i.e. feminist and family violence) that are used to explain IPV. Second, I will review the debate between researchers using these perspectives about the role of gender and perpetration and then discuss the theoretical explanations for female violence. Third, I will review the literature on predictors of IPV and disagreement about partner violence to show the prevalence and

effect it has on regression models of IPV predictors. Finally, I will explain the cognitive response process and explore how it can be applied to disagreement about partner violence.

Theories Explaining IPV

Feminist Perspective

The study of domestic violence grew out of the feminist movement in the 1970s and it was at this time that family violence became viewed as a social problem (Gelles 1997). Feminists study domestic violence because it is seen as a salient example of patriarchal power and control over women. Historically, men's violence was a legal and acceptable means of controlling and disciplining women (Muehlenhard and Kimes 1999). The home was viewed as a private place where women's exploitation and abuse was accepted as part of the man's right as head of the household. As a result, the family is often seen as an institution that reproduces women's oppression. Feminists argue that a patriarchal society that perpetuates beliefs that women are meant to serve and satisfy men's desires is at the root of abusive men's justification for violence against women (Anderson and Umberson 2001; Bancroft 2002; Dobash and Dobash 1998).

Feminist researchers studying IPV focus on power dynamics between men and women as the primary cause of IPV. Research on women from domestic violence shelters has often been used by feminists to show how abusive men control their female partners through economic dependency, isolation, emotional abuse, intimidation, minimizing the violence, male privilege, threats, and by manipulation involving their children (Pence and Paymar 1993). While this type of violence certainly does occur, there are also examples

of couples where control is not a central component of the relationship and where females are violent towards their partners. The feminist perspective is not as useful for understanding these violent relationship dynamics, which is why it is also important to consider the family violence perspective when examining such issues.

Family Violence Perspective

The family violence or family conflict perspective has been used to study numerous forms of violence within the family including child abuse, sibling abuse, and partner abuse with both male and female perpetrators. This research is generally traced back to the early work of Straus (1971) and Gelles (1974). Although much of the current family violence research does not explicitly use a particular theoretical model, the family violence perspective has historical connections to systems theories (Straus 1973) and is useful for understanding intimate partner violence.

According to systems theories, the family is viewed as a social system with interconnected parts where the actions of one family member affect all other members (Murray 2006). Violence is seen as a product of the system and has many diverse causes. The factors related to family violence generally include characteristics of the family (i.e. social class, length of marriage), individual characteristics (i.e. education, alcohol use), the instigating role of stress, and societal norms about the acceptance of family violence. Many of these factors are interrelated and can have reciprocal relationships where effects have multiple causes, and effects also can influence the causal mechanisms (Murray 2006). For example, depression has been found to be both a predictor and outcome of partner violence (Anderson 2002).

One of the major contributions from this line of research on family violence was the creation of the Conflict Tactics Scales (CTS). The CTS was the first systematic measurement of partner violence for survey research and after three decades, it is still the most widely used instrument (Straus 1979). In 1996 the CTS went through a major revision that among other things included the addition of new physical violence items (Straus et al. 1996) (see Appendix A for a full description of the physical violence items in the CTS2). Both versions of the CTS have been shown to have high construct validity, internal consistency reliability, and test-retest reliability on the physical violence measures (Straus 1979; Straus et al. 1996; Vega and O'Leary 2007). The CTS is especially important because it was designed to measure both male and female violence. There are, however, some critiques that have been raised about how well this scale measures male and female violence. For example, one of the main critiques of both the CTS and CTS2 is that these scales do not measure the context of violent situations. As such, we do not know "why" men and women use physical violence (DeKeseredy and Schwartz 1998). As a result, it is impossible to know who instigated the violence and also whether some violence was used in self-defense (Dobash et al. 1992). Although there are limitations with these scales, it is important to understand both male and female violence in order to move toward resolving the debate about who is more violent.

Gender Debate

Gender is one of the most controversial factors when studying IPV because there are mixed findings as to whether females or males are more violent in intimate relationships. Several researchers have found that men perpetrate violence more often than women (Catalano 2007; Dobash et al.2000; Gover, Kaukinen, and Fox 2008;

Rennison and Welchans 2000). For example, of the 16,000 men and women in the National Violence against Women Survey (NVAW), 25% of women compared to 7.6% of men reported that they were raped and/or physically assaulted by an intimate partner in their lifetime (Tjaden and Thoennes 2000). Similarly, according to the National Crime Victimization Survey (NCVS), women are five times more likely to be victimized by an intimate partner than men (Craven 1997). Women are also more likely to be injured during physical assaults (Felson and Cares 2005). For example, 41.5% of women were injured during their most recent assault compared to 19.9% of men (Tjaden and Thoennes 2000).

In contrast, numerous researchers find that women perpetrate violence at slightly higher rates than men (Anderson 2002; Capaldi and Owen 2001; Halpern et al 2001; Harned 2002; Melton and Belknap 2003; Robertson and Murachver 2007; Shafer et al. 2002; Straus 1993; Straus and Gelles 1990; Szinovacz and Egley 1995; Williams and Frieze 2005). For example, in a nationally representative sample of 6,002 married or cohabitating couples, Straus and Gelles (1990) found that women had slightly higher rates of perpetrating physical violence than men (12.4% versus 11.6%, respectively). Similarly, using the National Survey of Families and Households, 8% of men and 8% of women reported perpetrating intimate partner violence and 9% of men and 7% of women reported victimization in the year prior to the study (Anderson 2002).

Johnson's work (1995, 2006) suggests that the gender debate can be explained by both the feminist and family violence perspectives because the real issue is that there are several types of IPV with varying levels that are differentially found in clinical, community, and national probability samples. For example, clinical (i.e. domestic

violence shelter) samples most often find that men are more violent whereas national probability samples tend to find that men and women are violent at nearly equivalent rates (see results from the NVAW and NCVS above for exceptions). In other words, the differences that researchers have found in terms of prevalence rates for men and women could be explained by the different types of samples that have been used to study violent couples.

There are four types of violence according to Johnson's typology: intimate terrorism, mutual violent control, violent resistance, and situational couple violence. He identifies *intimate terrorism* as escalating violence in conjunction with other tactics primarily for the purpose of control, with males most often being the perpetrator in these relationships. If the female also uses similar control tactics, Johnson describes this pattern as *mutual violent control* because both partners battle for control. A third pattern, termed *violent resistance*, occurs when one partner is violent and controlling and the other partner responds with violence out of self-defense. Finally, *situational couple violence* tends to be less severe, more mutual, and is not based on a pattern of control but instead erupts out of a volatile situation.

Relationships that include more severe violence such as intimate terrorism are more likely to come to the attention of social services such as domestic violence shelters or court mandated batterer intervention programs and therefore end up in 'clinical' or community samples drawn from these sources. On the other hand, national probability surveys are more likely to include couples experiencing situational couple violence because it is more common in the general population. Given that most large surveys do

not measure the context of relationship violence (e.g., self-defense), it is often impossible to determine the underlying reasons for violence.

Comparative studies have been conducted to determine whether different types of violence are more commonly found in particular samples. Using 1970s data on male perpetration, Johnson (2001) found that only 11% of violence in a general sample was considered intimate terrorism, whereas 68% of violence in a court sample and 79% of violence in a shelter sample was identified as such. These findings are similar to more recent results from 2002 British data where 33% of violence in a general sample was considered intimate terrorism compared to 88% in a shelter sample (Graham-Kevan and Archer 2003). Similarly, in a meta-analysis of sex differences in aggression between heterosexual partners, Archer (2000) found that IPV reported in agency samples was primarily male-perpetrated whereas IPV reported in general samples was almost equivalent between males and females. Overall, these studies indicate that feminist researchers using agency samples such as domestic violence shelters are more likely to come across couples experiencing intimate terrorism which is characterized by male dominance and violence. Alternatively, family violence researchers using national probability samples are more likely to survey couples experiencing situational couple violence that is characterized by mutual violence where both partners are violent.

Explaining Female Violence

Most research on partner violence has focused on male violence and as a result less is known about the causes of female violence. There is a lack of theory that explains women's use of violence and how similar or different it is from men's violence. Swan and Snow (2006), however, reviewed literature on female perpetration of violence and

developed a theoretical model that puts women's violence into context. They found that because violent women often experienced abuse in their childhood and now in their current relationship, they are more likely to have developed avoidant coping strategies, which then leads to more violence. The authors also explain how women's reasons for using violence are sometimes different than men's. For example, due to their likelihood of being in an abusive relationship, women reported perpetrating violence out of self-defense and fear, to protect their children, or in retribution for their partner's abuse. Men in contrast are much more likely to use violence as a control tactic in order to instill fear in their partners (Swan and Snow 2006).

Both the feminist and family violence perspectives are important when studying IPV because of their theoretical and empirical contributions to the field. In accordance with the feminist perspective, gender will be a central focus of my study. All models will be analyzed separately for male and female-perpetrated violence because the nature and effect of disagreement on predictors of IPV may vary. In addition to gender, family violence researchers have also examined additional predictors including relationship characteristics, abuse histories, internalizing behaviors, and demographic characteristics, each of which is examined in detail below.

Predictors of IPV

Relationship Characteristics

Several relationship characteristics have been found to be correlated with IPV including relationship status, relationship duration, and relationship satisfaction. In terms of relationship status, previous studies reveal that couples who cohabit have the highest

rates of violence followed by those who are married and dating, respectively (Magdol et al.1998; Stets and Straus 1990). The differences across relationship status may be more distinct for women than men. A recent study found that this pattern held for women, but cohabitating and married men reported similar levels of perpetration and victimization, although both were still higher than daters (Brown and Bulanda 2008).

Relationship duration is another important relationship characteristic to consider when examining IPV, although the findings are mixed. Using a sample of adult couples from the U.S., DeMaris and colleagues (2003) found that couples who had been together for less time were at an increased risk for male and female physical violence. In contradiction, other research using a younger sample of daters found that relationship duration was positively associated with males and females perpetrating physical violence (Gaertner and Foshee 1999).

Relationship satisfaction is another characteristic used as a predictor of IPV. Although relationship satisfaction has been used as a predictor of IPV, it has also been used as an outcome (Williams and Frieze 2005). Most of the research in this area has been cross-sectional and as a result the causal direction of the association cannot be established. Results of a meta-analysis reveal that there is a negative relationship between marital satisfaction and male and female physical violence (Stith et al. 2008). The negative relationship between marital satisfaction and perpetration was stronger for males than females, while the negative relationship with victimization was stronger for females. They also found that regardless of gender, victims of IPV reported lower levels of martial satisfaction than offenders (Stith et al. 2008). Similarly, other research has shown that

perpetration of common couple violence increases for both male and female dating adolescents when relationship satisfaction decreases (Gaertner and Foshee 1999).

Childhood Abuse

Childhood maltreatment is another strong predictor of physical violence in intimate relationships. In fact, histories of child abuse are one of the most consistent predictors of partner violence perpetration and victimization for both men and women (Delsol and Margolin 2004; Field and Caetano 2005; Foshee et al. 2004; Gelles 1997; Gil-Gonzalez et al. 2006; Heyman and Slep 2002; Rich et al. 2005; Straus, Gelles, and Steinmetz 1981). For example, men and women who experienced childhood physical abuse by an adult caretaker were twice as likely to experience IPV (physical assaults, rape, or stalking) as an adult (Tjaden and Thoennes 2000). Childhood sexual abuse is also a risk factor for adulthood IPV. Women and men with a history of childhood sexual abuse were almost twice as likely to experience or perpetrate physical violence, respectively, in adulthood compared to those without an abuse history (Dilillo et al. 2001; Whitfield et al. 2003).

Men who had been physically or verbally abused as a child or witnessed parental abuse were significantly more likely to perpetrate emotional and severe physical violence against their wives (Margolin, John, and Foo 1998). In a study of couple violence, men who had experienced severe physical abuse as a child were more than five times as likely to perpetrate nonreciprocal physical violence and over twice as likely to perpetrate reciprocal violence compared to those without such a history (McKinney et al. 2008). For their female partners in the same study, severe physical child abuse was associated with a fivefold increase in their perpetration of reciprocal violence, but was not associated with

their nonreciprocal perpetration or victimization. Other research finds that females who are the primary perpetrators of violence had experienced greater levels of child physical, emotional, and sexual abuse than women who were more often the victim (Swan and Snow 2003).

Internalizing Behaviors

Substance use is an internalizing behavior that is commonly used as a predictor of IPV. Most studies find a positive relationship between substance use (i.e., drugs and/or alcohol) and IPV in both national (DeMaris et al. 2003) and clinical samples (Drapkin et al. 2005; Kilpatrick et al. 1997; Lipsky et al. 2005). Results from several meta-analyses suggest that there is a small to moderate effect size for the relationship between alcohol use/abuse and male physical violence (Foran and O'Leary 2008; Stith et al. 2004), and a small effect size for female violence (Foran and O'Leary 2008). Foran and O'Leary (2008) also examined moderating effects and found that there was a larger association between heavy alcohol use and physical violence in clinical samples (i.e. groups of batterers or alcoholics) compared with non-clinical samples.

In a meta-analysis of studies examining drug use and IPV, using cocaine and a combination of two or more drugs was significantly associated with physical violence (Moore et al. 2008). Moore and colleagues also found that these associations were stronger when men were identified as the drug user and perpetrator and when the female was the drug user and victim. For example, there were small to moderate effects for the relationship between men's use of cocaine, marijuana, and other stimulants and male physical violence. Additionally, there was a moderate effect for female cocaine use and

male violence, which means female cocaine users are at an increased risk of physical victimization (Moore et al. 2008).

Depressed mood is another internalizing behavior related to IPV. Although many studies have looked at depressed mood as a consequence of IPV, it has also been used to predict IPV. Depressed mood has been positively associated with IPV perpetration and victimization (Anderson 2002; Lipsky et al. 2005). Other studies show inconsistent results that vary by gender and offender/victim status. For instance, in a study of married and cohabitating couples depression was not related to male perpetration or victimization, but was a protective factor for female victims of reciprocal and nonreciprocal violence (Caetano, Vaeth, and Ramisetty-Mikler 2008). In contrast, Lehrer and colleagues (2006) found that women with a history of adolescent depressive symptoms were at risk for moderate to severe physical violence in young adulthood even after controlling for childhood abuse and adolescent dating violence. Similarly, Stith and colleagues (2004) found a moderate effect size between female physical violence victimization and depression in their meta-analysis. Unlike Caetano and colleagues (2008), Kessler et al. (2001) found that depression was only related to male perpetration of minor violence using married or cohabitating participants from the National Comorbidity Survey.

Demographics

Demographic characteristics such as race and ethnicity have been explored in relation to IPV. In general, Asian/Pacific Islander women and men report lower rates of lifetime physical assaults than other minorities, while African American and American Indian/Alaskans have higher rates than other racial groups, but the differences diminish after controlling for other sociodemographic (i.e., education) and relationship

characteristics (i.e., cohabitation) (Tjaden and Thoennes 2000). Some studies do not find any racial differences in the amount of violence experienced by women (Gondolf, Fisher, and McFerron 1988; Lockheart 1991).

Most research has found higher rates of physical IPV victimization for African American women compared to White women (Frias and Angel 2005; Tjaden and Thoennes 2000; Weston, Temple and Marshall 2005). African American males and females are more likely to be in a mutually violent relationship than Whites (Caetano, Vaeth, and Ramisetty-Mikler 2008). Mixed results emerge when other racial and ethnic comparisons are made. For example, Weston et al. (2005) found that African American women experienced mild and moderate physical violence significantly more often than Mexican women, whereas Frias and Angel (2005) found similar rates of physical violence between Mexican and African American women. In a study of women in mutually violent relationships where they were the primary perpetrator, African American women were more likely to perpetrate minor physical violence than their White or Mexican American counterparts, but Whites were more likely to perpetrate moderate physical violence (Weston et al. 2005).

Using the National Violence Against Women Survey (NVAW), little difference was found between Hispanic and Non-Hispanic men or women's reports of physical assaults in their lifetime (Tjaden and Thoennes 2000). In contrast, Caetano et al. (2008) found that Hispanics were more likely to experience male-perpetrated and mutual violence compared to Whites.

Socioeconomic status is one of the most consistent predictors of IPV. Although partner violence occurs across the socioeconomic spectrum, low socioeconomic status is

associated with an increased risk of partner violence (Hutchison et al. 1994; O'Donnell, Smith, and Madison 2002; Straus and Gelles 1990). Education is an important predictor of women's victimization. For instance, low income women with less than a high school degree are at an increased risk of experiencing physical violence compared to women with more than a high school degree (Frias and Angel 2005). Family income is also related to female victimization. According to data from the National Crime Victimization Survey, women (but not men) living in households with an annual income of less than $7,500 were almost seven times more likely to be victimized than women living in households with annual incomes of $75,000 or more (Rennison and Welchans 2000). However, women with a higher socioeconomic status than their male partner are at a greater risk for violence. Women who have higher incomes (Anderson 1997; McCloskey 1996; Melzer 2002), who are employed when their husbands are not (Macmillan and Gartner 1999), who have more occupational prestige (Yllö and Bograd 1988), and who are more educated (Gelles 1974; O'Brien 1971) than their male partners are more likely to be abused. As for perpetration, men with lower social class status are more likely to use violence against their partners (Hoffman, Demo, and Edwards 1994; Hotaling and Sugarman 1986; Okun 1986). Based on the previous literature on predictors of IPV that I have reviewed here, I provide my hypotheses for the direction of the relationships (i.e. positive or negative) between common predictors and IPV in Figure 4. The directions for some of these relationships are ambiguous and thus are shown with both a positive and negative sign. If the direction of the relationship is unknown or difficult to predict then they are shown with a question mark.

Limitations of Previous Research

Much of the research on IPV uses individual data where one partner reports for both partners' experiences with violence. For instance, one partner is asked about how often they perpetrated violence in the last year and it is assumed that their partner's report of victimization would be identical. Theoretically, they should be the same because partner violence is a shared experience, however, due to measurement error (i.e. disagreement) this is often not the case (Armstrong et al. 2002). The detection of measurement error in the form of discrepancies between partner's reports of violence is only possible with couple level data where both partners are interviewed about their perpetration and victimization. Depending on the difference between couples who agree and those who disagree, measurement error could have an important effect on both the prevalence of violence as well as on the relationship between risk factors and IPV.

It can be difficult to disentangle deliberate misreporting from the other sources of error in the response process (Tourangeau et al. 2000), although external sources of validation can be very helpful in detecting response editing. For example, in a study about reports of abortion, Jones and Forrest (1992) found that only about half of the abortions recorded in abortion clinics were self-reported in a survey context. Unfortunately, external validation is generally not available for reports of partner violence; therefore we do not know what the "true" value is or which partner's report is closer to the truth.

Disagreement about the Occurrence of IPV

Disagreement over IPV is evident when one partner reports that violence occurred in their relationship, but the other partner does not. Disagreement is measured at the couple level by comparing the individual male and female partner reports. A couple report, therefore, is a combination of the male and female partner reports. Previous research has shown that there is disagreement about the occurrence of IPV among partners, but the amount of disagreement varies from less than ten percent to over fifty percent depending on the study (Armstrong et al. 2002). Disagreement rates tend to be the highest in clinical samples such as those from domestic violence shelters or abuser rehabilitation programs, lowest in national probability samples, and somewhere in the middle for community samples. For example, in a clinical sample of 104 married couples where the husband was in a spousal violence treatment program, 30% of the couples disagreed about the occurrence of male violence and 37% of the couples disagreed about female violence before treatment began (Fals-Stewart, Birchler, and Kelley 2003). In a nationally representative sample of 1,635 cohabitating and married couples 8% disagreed about the existence of any male violence and 11% disagreed about any female violence in their relationship (Schafer et al. 2002). Finally, in a community sample of 50 heterosexual dating college students, 26% disagreed about the occurrence of male violence and 34% disagreed about female violence (Perry and Fromuth 2005). It is not surprising that disagreement tends to be lower in national and community population samples because they have a lower prevalence of violence (Jouriles and O'Leary 1985) and there is a correlation between the presence of violence and disagreement about violence.

There tends to be more agreement about the nonoccurrence of violence than there is about the occurrence of violence (Armstrong et al. 2002). For instance, in an analysis of 4,088 couples from the National Survey of Families and Households, 66% of couples were in agreement about their nonviolent status for male-perpetrated violence, whereas 29% agreed that there was violence (Szinovacz and Egley 1995). In the same study, 70% of couples agreed about the nonoccurrence of female-perpetrated violence, but only 25% agreed about the occurrence of this type of violence. This means that agreement is confounded with the presence of violence (i.e. violent or nonviolent). Therefore, agreement can be separated into agreement where both partners report violence and where both partners do not report violence.

Disagreement can also be separated into two types based on the gender of the partner and whether or not they report violence. For example, the male could report violence when the female did not, or the female could report violence when the male did not. Previous research is mixed regarding the prevalence of these different types of disagreement. Some researchers find that when there is disagreement among couples, the female partner is more likely to report violence than her male partner for both victimization and perpetration. For example, Schafer and colleagues (1998) used a sample of 1,635 couples and found that women were significantly more likely to report violence regardless of the sex of the perpetrator. Specifically, females reported more victimization (4.4%) than their partners reported perpetrating (3.8%) and they also reported perpetrating more violence (7.6%) than their partners reported experiencing (3.6%). In contrast, others find that men are more likely to report perpetration and victimization than their female partner. Perry and Fromuth (2005) found that 26% of their

50 dating couples disagreed about male violence; men reported perpetrating violence more often (16%) than women reported being victimized (10%). Additionally, 34% of couples disagreed about female violence; the male partner was more likely to report violence (20%) compared to the female partner (14%) (Perry and Fromuth 2005).

The final pattern of reporting found in previous literature suggests that both men and women are more likely to report violence when they are the victims. For instance, of the 210 couples where at least one partner reported male violence, Anderson (1997) found that it was more common for females to report victimization (n = 97) than males to report perpetration (n = 47) when their partner did not report violence. Further, among the 208 couples where female violence was reported by at least one of the partners, males were more likely to report victimization (n = 76) than females were to report perpetration (n = 57) when their partner did not report violence (Anderson 1997).

Overall, there is also a pattern for more disagreement about female violence than male violence across dating, cohabitating, and married couples (Archer and Ray 1989; Perry and Fromuth 2005). For example, in a sample of 1,635 married and cohabitating couples there was less agreement for the occurrence of female violence (Kappa = .36) than male violence (Kappa = .39) (Schafer, Caetano, and Clark 1998). There may be more disagreement about female-perpetrated violence because our societal definitions of it are not clearly defined.

Disagreement can have important consequences for the prevalence of violence. In some couples both partners report violence, but in others there is disagreement and only one partner reports violence. For couples who disagree, there is no way to know which report is correct, but most previous research errs on the side of using any report of

violence as an indication of the presence of violence (Caetano et al. 2008; DeMaris et al. 2003; O'Leary, Slep, and O'Leary 2007). As a result, the prevalence of violence will be higher when couples who disagree are included with couples who agree there is violence. For instance, Perry and Fromuth (2005) studied 50 heterosexual dating couples and found that 60% were considered physically violent when at least one of the partners reported violence, but this dropped to 28% when both partners had to agree that violence occurred. As a result of disagreement, the prevalence of violence will vary across the male report, female report, and couple reports where both partners reported violence or either partner reported violence. As an example, among the 1,635 couples studied by Schafer and colleagues (2002), 9.3% of males reported perpetrating violence, 9.8% of females reported victimization, 5.2% of couples had both partners report male violence, and 13.6% of couples had either partner report male violence. Looking at female-perpetrated violence in the same study, 14.6% of females reported perpetration, 10.6% of males reported victimization, 6.2% of couples had both partners report female violence, and 18.2% of couples had either partner report female violence. In addition to affecting prevalence estimates, disagreement may also affect the relationships between common predictors and IPV.

The Effect of Disagreement on Predictors of IPV

The effect of measurement error (i.e., disagreement about the occurrence of violence in relationships), on regression coefficients predicting partner violence is an area in need of study. As discussed above, most of the literature on disagreement about partner violence is descriptive in that it only shows how much disagreement there is among

couples but does not reveal what effect disagreement has on multivariate models predicting partner violence or why there is error in romantic partner's reports of violence.

There are a few studies that have looked at the effect of disagreement on predictors of IPV. Schafer and colleagues (2002) found that the pattern of relationships between commonly used predictors such as child abuse, education, attitudes towards IPV, substance use and IPV changed depending on the reporter (i.e., female report, male report, average of male and female report, both partners report violence, or either partner reports violence). For example, men's experience of being physically abused as a child was related to male violence when using the male report or the average of the two partner's reports. However, when using the female's report or the couple reports where both or either of the partners reports violence, male childhood physical abuse was not significantly related to male violence. Similar changes were also found for female violence on several variables. For example, men's education was related to female violence based on the female report and average of the male and female reports, but was not significant when using the male report or either of the couple reports. Other variables such as women's impulsivity were consistently related to both male and female violence across all reports. Although the author's identified significant relationships, they did not provide the regression coefficients so it is impossible to know whether the size or direction of the relationship changed across models. Based on these findings, regression results for predictors of IPV do change depending on the reporter and how disagreement about IPV is handled, but some variables are affected more than others (Schafer et al. 2002).

Other studies have also found that the effect of disagreement on predictors of IPV is variable-specific. For instance, Szinovacz and Egley (1995) found that some predictors of IPV such as wife's age, both partner's reports of heated arguments, and wife's marital happiness were consistent predictors across male reports, female reports, and couple level report where either partner reported violence. Other predictors, however, such as provider role attitudes and husband's race had inconsistent relationships with IPV depending on the reporter. For example, provider role attitudes was significantly related to the husbands' and couple estimates of wife's injury, but not to estimates based on the wife's report. The effect of husband's race on IPV was in opposite directions based on husbands' and wives' reports such that Black husbands were more likely and their wives less likely to report violence. They conclude that there is systematic gender bias in reporting of violence and this bias can change the pattern of results that are found for predictors of IPV. They also found that differences in reports were restricted to questions about conflict and violence instead of other questions about their marriage such as marital satisfaction, which suggests a social desirability effect. Other meta-analytic research has found support for a social desirability effect on reports of IPV (Sugarman and Hotaling 1997). Results from their study highlight the importance of examining both male and female violence because the pattern of covariates was different for these two types of violence (Szinovacz and Egley 1995).

Previous research suggests that couples disagree about relationship violence and that this disagreement has some effect on multivariate predictors of IPV. Couple reports and one-partner reports overlap by definition. As a result, substantial differences in results for couple and one-partner estimates can only result if there are substantial

differences between the male and female reports. If the male and female reports were exactly the same then there would be no disagreement and the one-partner and couple reports would be identical. Under these circumstances the relationships between the independent and dependent variables would be the same regardless of whose report was used. When disagreement between partners is present, however, estimates of IPV can change depending on which report is used and this can affect the relationships between variables in our models. Changes due to disagreement should result in more pronounced differences among odds ratios and consequently their significance levels (Szinovacz and Egley 1995).

The exact changes for specific covariates, however, are difficult to predict because measurement error in reports of violence are conditional on the violence questions that were asked, which can vary by study. The effects of measurement error are also difficult to predict because such errors can affect coefficients in unknown and unpredictable ways. Measurement error in categorical variables has been called misclassification and previous research on this topic suggests that the effect of this type of error depends on the mechanisms behind the misclassification. For example, if the categorical outcome variable is misclassified, but the mechanism behind the misclassification is the same for each category of the independent variable, then the misclassification is said to be nondifferential and coefficients generally follow a pattern of attenuation (Kuha and Skinner 1997). Alternatively, when misclassification in the outcome variable varies across the independent variable because the mechanism behind the misclassification is related to the independent variable, then the misclassification is said to be differential. Empirically, misclassification is often related to the independent

variables. The effects of differential misclassification on regression estimates is often difficult to predict (Goldberg 1975; Greenland and Robins 1985; Kuha and Skinner 1997).

Although it is difficult to predict how the significance of IPV predictors may vary across the male, female, and couple level reports of IPV when analyzing my second research question, I hypothesize that male characteristics (i.e. the male's report of drug use) are more likely to be significantly related to the male reports of IPV (i.e. the male's report of perpetration) in comparison to the female reports of IPV because people may have a more accurate perception about their own characteristics and experiences than other people such as their partner (O'Muircheartaigh 1991). Similarly, I expect that female characteristics are more likely to be significantly related to the female reports of IPV in comparison to the male reports of IPV. In support of these hypotheses I found higher correlations between male characteristics and male reports of IPV in comparison to female characteristics and male reports of IPV (results not shown). Likewise, I found higher correlations between female characteristics and female reports of IPV in comparison to male characteristics and female reports of IPV (results not shown). Hypotheses for the couple characteristics are more difficult to generate because they apply to both partners and the couple report of IPV combines the male and female reports of IPV. Using the same logic as that for male and female characteristics, however, I would hypothesize that couple characteristics are more likely to be significantly related to the couple report of IPV. These hypotheses are shown in Figure 4. Positive and negative signs are used to show the direction of the hypothesized relationships for predictors of IPV. In addition, I hypothesize that the male characteristics are more likely to be

significantly associated with the male report of both perpetration and victimization compared to the female or couple report. Similarly, the female characteristics are more likely to be associated with the female report of perpetration and victimization compared to the male or couple report. Some of the directions of the relationships are ambiguous and thus are shown with both a positive and negative sign. When the direction of the relationship is unknown or difficult to predict, they are designated by a question mark. The direction of the relationship is only given to make the interpretation of significant relationships easier to follow because the focus of my second research question is on how the significance of predictors varies across the male, female, and couple reports of IPV. Previous literature suggests that measurement error can affect some predictors of IPV, but the next step is to understand why partners disagree about violence.

Why do Couples Disagree?

Cognitive Response Processing Errors

When disagreement about a shared experience such as partner violence occurs, this suggests that there is measurement error in the reports of violence. In order to understand how measurement error arises, survey methodologists and cognitive psychologists have developed the *cognitive response process* as a theoretical framework to understand how respondents answer survey questions. The cognitive response process generally includes five components: encoding, comprehension, retrieval of information, judgment, and response (Eisenhower, Mathiowetz, and Morganstein 1991; Tourangeau 1984; Tourangeau and Rasinski 1988). The steps of the cognitive response process are not sequential; respondents can backtrack to previous stages or skip stages altogether.

Also, there can be considerable overlap among stages as they take place, which can make it difficult to distinguish the stage in which errors occurred. Most importantly, reporting errors can occur at one or more of these steps. As a result, reporting errors can have multiple causes due to errors or breakdowns in different stages of the response process. Although the process is the same, errors may occur differently for men and women when answering questions about male and female violence. Previous research has not disentangled which stage or stages of the cognitive response process are responsible for disagreement about partner violence.

Disagreement occurs when one partner reported violence but the other partner did not. Disagreement then leads to a problem of 'he said; she said' because in my data I do not know whose report is right or wrong. I am assuming that the "truth" about partner violence can be known – that either there has been violence in a couple's relationship or there has not. Therefore one of the partner's reports represents the "truth" when there is disagreement; I just do not know which one. For example, if the male reported violence but the female did not then it is possible that either of their reports is more accurate. If his report of violence was correct, then her report would be an underreport. Alternatively, if her report of the absence of violence was correct, then his report would be an overreport. Both underreports and overreports of violence are possible. Therefore, I will also discuss how proxies for errors in the cognitive response process may be more likely to lead to potential underreports or overreports of violence for each partner.

Before I describe how errors at each stage of the cognitive response process could affect reports of partner violence it is important to set the context for how respondents in the Add Health data answered questions about partner violence because errors are context

and question specific. Add Health respondents completed the questions on partner violence using a Computer Assisted Self Interviewing (CASI) system where they read and answered the questions on a laptop without the assistance of the interviewer. They read the following introduction before answering questions about relationship violence: "No matter how well a couple gets along, there are times when they disagree or fight. Couples have many ways of settling their differences. Please indicate how often each of the following things has occurred in your relationship with <PARTNER>." If a respondent was identified as being in a relationship for one year or more then the interviewer rephrased the instructions to say, "Please indicate how often each of the following things has occurred *in the past year* in your relationship with <PARTNER>." The reports of partner violence included in this study are based on a question about physical violence that is answered both in terms of perpetration: "How often have you slapped, hit, or kicked <PARTNER>?" and victimization: "How often has <PARTNER> slapped, hit, or kicked you?" Both questions used the same response scale: 0 = never, 1 = once, 2 = twice, 3 = 3-5 times, 4 = 6-10 times, 5 = 11-20 times, 6 = more than 20 times, 7 = this hasn't happened in the past year, but did happen before then. Although the respondents were asked to respond to this question on a frequency scale, the responses are dichotomized into the presence or absence of violence (0 = no violence, 1 = at least one incident of violence) for the analyses because of the low frequency of violence reported. Below I describe each of the steps of the cognitive response process, the proxies in my data that I am using to represent potential error in the process, and how these errors in the cognitive response process could lead to disagreement in the form of underreporting or overreporting for each partner.

Encoding

The encoding stage relates to how an event is stored into memory. This stage of the cognitive process is out of the control of the researcher because it occurs before a survey question is asked. Several problems occurring at the encoding stage can lead to reporting errors later on in a survey context. People experience more stimuli in their environments than they are able to encode into memory and if a memory of an event is not formed then it will be impossible to retrieve this information when asked about it in a survey (Tourangeau 2000). More recent events that are distinct from other events and occur with greater intensity (both negative and positive) are more likely to be encoded elaborately, which makes recall more likely (Tourangeau et al. 2000). Elaborate encoding can occur through rehearsal where events are thought about or discussed more frequently after they occur.

There are also different ways in which memories are stored. According to Tulving (1983) there are two types of memory: episodic and semantic. Episodic memory is the storage of specific events that are chronologically located, whereas semantic memory is the more abstract storage of concepts, meaning, and interrelationships. The meaning of an event or experience appears to be more commonly stored rather than an exact record of the event (Eisenhower et al. 1991). Memories are also malleable; memories can be integrated with other relevant information to create a representation of an event and as a result can change over time (Tourangeau et al. 2000). Additionally, people can fill in missing details or distort information to be more consistent with schemas for how things should be related (Eisenhower et al. 1991).

Partner violence is an experience that will likely be encoded and stored into memory because it will stand out in a person's mind and be thought about after the fact; however, there could be variation in the level of elaboration depending on the specific violent behavior and characteristics of the partner. Characteristics of the partner including their focus on managing the relationship and depressed mood may also affect the encoding process. Women may engage in more elaborate encoding than men because of their greater focus on managing relationships. Women are socialized to place more importance on interpersonal relationships and are more responsible for managing the quality of their relationships (Putrevu 2001; Ross and Holmberg 1992). Some support for this has been found in qualitative interviews where both men and women reported that they thought women could recall relationship facts more accurately than men (Armstrong et al. 2001). As a result of women's greater focus on the relationship, women may encode events about partner violence more elaborately because they spend more time thinking about things that could affect the quality of their relationship such as violence. I will use measures of female relationship management as a proxy for elaborate encoding in my analyses.

Elaborate encoding may help women store and remember events of violence better than their partners. Subsequently, more elaborate encoding may make it easier for women to retrieve memories of partner violence when asked about them in a survey. Consequently, women may report more perpetration and victimization compared to their partners. If the female partner reports violence but the male partner does not, then there is disagreement according to the way I have dichotomized violence. In situations where the female partner reports violence but her partner does not, then her report may be more

accurate than his because of her more elaborate encoding. If her report is more accurate, then his report may be an underreport of violence. Therefore, I hypothesize that higher female relationship management will be positively related to the male partner potentially underreporting perpetration and victimization.

Depressed mood may also be related to more elaboration of events during the encoding process because people who are depressed may be more likely to interpret situations negatively and ruminate over these situations after they happen (O'Leary and Arias 1988). As a result, these events may be easier to encode because they are associated with stronger emotions and are rehearsed repeatedly (Tourangeau et al. 2000). If depressed mood does affect the encoding process then people who are more depressed may be more likely to report perpetration and victimization compared to their partners. If depression affects the encoding process such that the depressed partner reports violence when their partner does not, then there is disagreement in their reports. The report of violence could either be more accurate or less accurate depending on how depression affects the encoding process. For example, if partner violence happened and the depressed partner spent more time thinking about the event afterwards then they may be able to remember situations of partner violence better than their partner when asked about them in a survey. In this scenario, the depressed partner's report that violence occurred may be more accurate and therefore their partner may be underreporting violence. If depression is a proxy for more elaborate encoding and more accurate reports, then I would expect to see a positive relationship between male depression and female underreports of perpetration and victimization. Likewise, I would expect to find a

positive relationship between female depression and male underreports of perpetration and victimization.

Alternatively, depression could affect the encoding process in a way that leads to the reduced accuracy of reports of violence. For instance, depression could affect how someone perceives other people's behaviors in such a way that they interpret behaviors more negatively than they were intended. As an example, the depressed partner could interpret a "playful" slap on the shoulder as a sign of violence even though their partner did not intend it to be that way. Additionally, depression could affect how people interpret and modify their memories of events over time such that memories of events become more negative. If depression affects the encoding process in such a way that reports of violence are less accurate, then these reports could be potential overreports. Under this scenario, I would expect that male depression would be positively related to male overreports of perpetration and victimization. Similarly, I would expect that female depression would be positively related to female overreports of perpetration and victimization.

Comprehension

Comprehension is the process people go through when trying to understand a survey question (Graesser, McMahen, and Johnson 1994). A well written question should minimize personal interpretation and maximize the cultural common ground of experiences to establish a shared meaning of the words and question as a whole (Eisenhower et al. 1991). However, well written questions are difficult to create and several problems can occur that result in reporting errors. For example, respondents may define vague concepts differently than how the researcher intended and there may be

variability in respondents' definitions. Violence has been considered a vague concept where there is substantial variability in respondent's interpretation (Belson 1981). Men and women may have different interpretations of what constitutes violence, which could lead to discrepancies in their reports. The question in Add Health does not use the word violence, but it does ask respondents to report on the frequency of several violent behaviors including slapping, hitting, and kicking. Some respondents may define these behaviors differently. For example, some respondents may think any physical contact using the hands counts as a hit, whereas others may define hitting as a closed-fisted punch. Males may report less victimization because they do not take female violence seriously and therefore do not define their partner's behavior as violent. For example, one study found that some men who experienced female partner violence laughed about it or thought it was funny, whereas women did not make similar reports about male violence (Holtzworth-Munroe 2005). Men may not take their female partner's violence as seriously because previous research has shown that there are different consequences for male and female victims of partner violence (Felson and Cares 2005). For example, women are more likely to be seriously injured or killed as a result of partner violence according to results from the National Crime Victimization Survey (Craven 1997).

Ambiguity about how a respondent's experiences match what the question is asking for is another problem that can occur at the comprehension stage because respondents may not know which circumstances to include as violent. There is ambiguity between the context and question wording of physical behaviors used in the Add Health data. For example, the introduction to the questions sets up violence in the context of couple disagreement or fighting to settle differences, but the actual question wording asks

respondents to indicate how often each of the following violent behaviors has occurred in their relationship. Respondents may be confused about whether they should only include behaviors that occurred in a disagreement or fight with their partner or whether they should include all occurrences of these behaviors in the duration of their relationship. If respondents include all occurrences of behaviors in their relationship then females' reports of perpetration may be inflated because they are more likely to engage in playfully slapping their partner (Perry and Fromuth 2005). Also, acts of self-defense are not differentiated from acts of initiation when using the CTS (Straus 1990); therefore respondents could include acts of self-defense when answering the question on slapping, hitting, or kicking their partner. Both partners may count acts of self-defense as physically assaulting their partner, but previous research on the motivations for violence suggest that this may be more common for women (Swan and Snow 2006).

Unfortunately, the Add Health data does not include questions that would be good proxies for the breakdowns in the comprehension stage mentioned above. However, if disagreement about partner violence is due to a breakdown in comprehension stemming from different definitions of a situation, then it is plausible that there could be similar comprehension issues with other aspects of the relationship. Relationship satisfaction could be a proxy for breakdowns at the comprehension stage of the cognitive response process because satisfaction is subjective and could affect how each partner perceives events in their relationship, including violence. Partners who are more satisfied with their relationship may not perceive behaviors or situations as violent even though less satisfied partners would define them as violent. Highly satisfied partners may not have an accurate perception about the current state of their relationship because they do not think anything

is wrong with their relationship but their partner might think otherwise. Therefore, partners with higher relationship satisfaction may be less likely to report violence even if their partner does report violence. If relationship satisfaction is a proxy for breakdowns in comprehension that alter the perceptions of partners with higher satisfaction such that they do not report violence that actually occurred, then these could be potential underreports. If this were happening then I would expect that higher male relationship satisfaction would be positively related to male underreports of perpetration and victimization. Likewise, I would expect higher female relationship satisfaction to be positively related to female underreports of perpetration and victimization.

Additionally, there could be an interaction effect between male and female relationship satisfaction such that there is an added effect when one partner is much more satisfied than the other partner. Having one partner much more satisfied than the other could be an indication of major differences in how they perceive their relationship. Different perceptions of a relationship could lead to differences in how they comprehend survey questions about their relationship, including questions about violence. I expect that female underreporting will be more likely when the female is more satisfied than her partner. Similarly, I expect that male underreporting will be more likely when the male partner is more satisfied than his partner.

Retrieval of Information

Retrieval of information describes how people recall (i.e. remember) past behaviors from memory when asked about them in a survey context (Tourangeau et al. 2000). Research in the areas of cognitive psychology and survey research has identified that the timing of events, such as when events happened and how close events are to the

time frame they are asked to report about, can affect errors in recall (Jobe, Tourangeau, and Smith 1993). There is considerable overlap between how well a memory was encoded and how well it is retrieved.

The timing of the event is important for recalling past events. Research has consistently shown that people have an easier time remembering more recent events (Bradburn, Rips and Shevell 1987; Tourangeau et al. 2000) compared to distant ones. Many studies show that the number of events reported decreases as the reference period (i.e. time frame given in a survey question) increases (Sudman and Bradburn 1973; Tourangeau et al. 2000). For example, respondents asked to report about violence in the past week should have an easier time than if they were asked about violence in the past year because the time period is shorter. Murray Straus, the creator of the original Conflict Tactics Scales (CTS), acknowledges that recall error is more likely when using a one year reference period to measure physical IPV in the CTS in comparison to a shorter time period (Straus 1990). His rationale for the one year reference period is that IPV is generally a rare event and a shorter reference period would further skew the distribution of IPV (Straus 1990). If more recent events are easier to recall then relationship duration could be a proxy for errors during the retrieval of memories about partner violence. Specifically, couples who have been together for a longer period of time should be less accurate in their recall of violence. Therefore, longer relationship duration may be positively related to disagreement about partner violence. I do not have a specific hypothesis about which partner would be more likely to make an error because of the longer time period, but the likelihood of either partner making an error increases as the length of the relationship increases.

How close events are to the reference period is another factor affecting recall. Respondents can make errors in the temporal placement of events such that they include events that happened before the reference period (forward telescoping) or forget to include events that happened during the reference period (backward telescoping) (Tourangeau et al. 2000). Add Health respondents are asked to, "Please indicate how often each of the following things has occurred in your relationship with <PARTNER>." If a respondent was identified as being in a relationship for one year or more then the interviewer rephrased the instructions to say, "Please indicate how often each of the following things has occurred *in the past year* in your relationship with <PARTNER>." For people in relationships for less than one year, the reference period is their entire relationship, but for couples together longer than one year their reference period is the past year. The beginning of a relationship is most likely a more salient temporal boundary than the last calendar year so it may be easier for couples with shorter relationship durations to remember violent events. Those couples who have been together longer than one year may make more telescoping errors when trying to place violent events within the last year. Again, I do not have a hypothesis for which partner would be more likely to make the telescoping error, but I think that the likelihood of either partner making this kind of error increases for couples in longer relationships.

In the Add Health data there is an additional response option that allows couples who have been in a relationship longer than one year to report that although violence hasn't happened in the past year, it did occur previously. This additional response option theoretically allows them to report whether they have experienced any violence in the duration of their relationship. By dichotomizing the reports of violence (0 = no violence,

1 = at least one report of violence) I used this additional response option to minimize the effect of telescoping by making the reference period the length of their relationship for all couples regardless of how long they have been together. In other words, even if a respondent makes an error when reporting about violence that happened in the last year they can still indicate whether or not there has been violence at some point in their relationship and be accurate according to the dichotomization of violence.

Other respondent behaviors that affect memory ability may also affect recall of relevant information. Substance use may hinder a person's capacity to retrieve information because drugs and alcohol can affect memory ability (Panuzio et al. 2006). Therefore, substance use such as drug and alcohol use could be a proxy for errors in the retrieval stage of the cognitive response process. Medina and colleagues (2004) interviewed couples where the male partners were polysubstance abusers in their first year of abstinence and found that cocaine and PCP usage were significantly related to increased disagreement about female-perpetrated violence. The effects of substance use on memory ability can be both immediate and long term. For example, some people experience blackouts where they have no memory of the events that occurred while consuming large quantities of alcohol. Substance use may also permanently damage a person's ability to store and retrieve memories (Medina et al. 2004). Therefore, people who use substances should be less likely to report violence relative to their partner. Specifically, male and females who have used drugs and have gotten drunk more frequently in the past year are expected to underreport perpetration and victimization.

Judgment

Judgment is the process of integrating, supplementing, or estimating the information that has been retrieved from memory (Tourangeau et al. 2000). Behavioral frequency questions, such as the partner violence questions in Add Health, ask the respondent to give a frequency for how often a behavior has occurred during a specified time period. Overall, more difficulties during the encoding and retrieval stages will lead to more subjective judgment and estimation when deciding what answer to give. Judgment and retrieval are difficult to disentangle for behavioral frequency questions (Tourangeau et al. 2000).

There are four broad strategies for estimating frequencies of a behavior (Tourangeau et al. 2000). The tally method of retrieval and judgment is the most accurate because respondents have an exact tally of the number of times a behavior has occurred, but is generally the least frequent (Tourangeau et al. 2000). The next strategy is the recall and count method which involves respondents recalling specific events and then totaling them up. This strategy is most often used when the event occurs infrequently (Blair and Burton 1987). The recall and count method is prone to both underestimation because people forget events and also overestimation because of telescoping where they include events that happened outside the reference period. Another strategy, rate-based estimation, occurs when respondents are not able to recall specific events over the whole reference period but instead can calculate a rate or average frequency for a smaller period of time and then use the rate to extrapolate to the full time period (Blair and Burton 1987). The final judgment strategy, impression-based estimation, is the least accurate because the estimate is only based on an impression of how often something has occurred

(Tourangeau et al. 2000). The strategies people use depend on the behavior they are asked to report on. For instance, Brown and Sinclair (1997) found that 28% of their respondents had an exact tally of their number of sexual partners, but in a different study looking at the frequency of child immunizations respondents did not use this strategy at all (Willis et al. 1999). Studies examining the relative use of these judgment strategies across different behaviors suggest that only a minority of people use the recall and count method (Tourangeau et al. 2000), which suggests that a considerable amount of estimation is occurring.

It is unclear why men and women would use different judgment strategies when estimating the frequency of a sensitive topic unless in an attempt to edit their answers (Tourangeau et al. 2000). If the process is the same for men and women then I do not expect errors at this stage to differentially affect the male and female reports of violence in a way that would cause disagreement. Therefore, no proxies of the judgment stage are included in models predicting disagreement in reports of violence.

Response

Finally, at the response stage respondents select and report an answer. It is at this stage that response editing can occur where respondents actively decide to report something different than the truth. Of the five components of the cognitive response process, this stage has been given the most empirical attention in relation to sensitive topics such as IPV because of the potential social desirability bias (Sugarman and Hotaling 1997). Social desirability effects are common with sensitive topics because respondents want to present themselves favorably and in-line with social norms. As such,

they tend to underreport socially undesirable behaviors and overreport socially desirable behaviors (Sudman and Bradburn 1974).

Perpetration of violence is stigmatized in our society and therefore may be susceptible to a social desirability bias where violence is systematically underreported (Sugarman and Hotaling 1997). Studies have found that men report less perpetration of violence compared to their partner's reports of victimization (Berns 2001; Goodrum et al. 2001; Heckert and Gondolf 2000; Perry and Fromuth 2005). Alternatively, female violence may not be as susceptible to social desirability effects because there is less social stigma associated with female-perpetrated violence (Beyers et al. 2000; Caetano et al. 2002; Cook and Harris 1995; Hannon et al. 2000; Simon et al. 2001; Sorenson and Taylor 2005). Szinovacz and Egley (1995) found evidence that social desirability was a major reason behind discrepant reports about partner violence. Specifically, they found that differences in partner reports about aspects of the marital relationship that could be susceptible to social desirability (i.e. marital conflicts) were significantly related to husband's underreporting of his perpetration and victimization whereas differences in socially desirable relationship characteristics (i.e. marital happiness) were not. People who have a greater need for social approval or need to conform to social standards may be more susceptible to social desirability effects where they underreport perpetration (Crowne and Marlowe 1964; DeMaio 1984). Men and women who score higher on social desirability characteristics are expected to underreport perpetration.

Other forms of response editing are also possible. For example, disagreement may be more likely in relationships where one partner is more economically dependent on the other. Applying the socioeconomic model to female underreporting of perpetration (i.e.

where the male reported victimization but the female did report perpetration compared to females who did report perpetration), Anderson (1997) found that low status women paired with high status men were more likely to underreport perpetration. Alternatively, men were more likely to underreport perpetrating violence (i.e. where the female reported victimization but the male did report perpetration compared to males who did report perpetration) when they had both lower and higher educational status than their partner (Anderson 1997). I will use unemployment to measure economic dependency and this will serve as a proxy for potential errors at the response stage where respondents may choose to edit their answers. Men and women who are unemployed may be more economically dependent on their partners and therefore may have more to lose if their relationship were to end. As a result, they may not report violence because they do not want to admit that their relationship has problems for fear of losing their partner. I expect that male unemployment will be positively related to the potential for male underreports of perpetration and victimization. Similarly, I expect that female unemployment will be positively related to the potential for female underreports of perpetration and victimization. In addition, I anticipate that there could be an interaction effect between male and female unemployment. Partners who are unemployed when their partner is employed are expected to be even more likely to underreport their perpetration or victimization.

Emotional investment in the relationship may also be a proxy for response editing that could lead to disagreement about partner violence. Partners who are more emotionally invested in their relationship may have more to lose if it were to end (Perry and Fromuth 2005). I will use relationship commitment to measure emotional investment

in the relationship. More committed partners may be more likely to underreport violence because they do not want to admit to anything that could jeopardize the stability of their relationship. Therefore, I hypothesize that there will be a positive association between male and female relationship commitment and underreporting of perpetration and victimization. I also expect that there could be an interaction effect between male and female relationship commitment. There could be an added effect on underreporting if one partner is much more committed than the other partner.

Masculinity may also be related to response editing. Male victims may edit their true responses about violence because they are embarrassed to admit that their female partner used physical violence against them. Male victims may feel emasculated by their victimization because perceptions of masculinity suggest that men should be stronger, more aggressive, and able to dominate women (Caetano et al. 2002; Gray and Foshee 1997; Moffitt et al. 1997) and as a result may underreport victimization. At the same time, masculinity may also be related to overreporting perpetration because some researchers have suggested that men with higher levels of masculinity may overreport perpetration in order to reinforce their masculinity (Moffitt et al. 1997).

Privacy can also have an impact on answers to sensitive questions. People may be less likely to report partner violence when someone else is present or listening to their interview (Straus et al. 1996). Self-administered surveys generally produce higher estimates of sensitive behaviors than face-to-face or telephone surveys because respondents do not have to make reports in front of an interviewer and there is less potential for response editing due to the presence of others such as parents or a spouse (Tourangeau and Smith 1996; Tourangeau et al. 2000). Perpetrators may be less likely to

report violence if someone else is present during their interview because they do not want to admit to using violence against their partner. Victims may be fearful of reporting violence if their abuser is present during their interview. As a result, respondents who had someone else present and listening to their interview may be more likely to underreport perpetration and victimization.

Breakdowns in the cognitive response process (CRP) may be related to disagreement in respondent's reports of partner violence because they affect how each partner goes through the process that ultimately leads to their survey response. Based on the literature review of the cognitive response process, Figure 4 shows the hypothesized direction of relationships between proxies of the CRP and the different types of disagreement (overreporting perpetration, overreporting victimization, underreporting perpetration, and underreporting victimization) for male-perpetrated violence and Figure 5 shows the hypotheses for female-perpetrated violence. These hypotheses are based on analyzing two separate multinomial logistic regression models. In one model the reference category is agreement about the absence of violence so that overreports can be assessed (see Column 1 and 2). In the other model, the reference category is agreement about the presence of violence so that underreports can be assessed (see Column 3 and 4). More details about these models will be provided in Chapter 4 under the results section for Proxies of the Cognitive Response Process Predicting Disagreement.

Because my research question is about how proxies for breakdowns in the cognitive response process can explain disagreement about IPV, I have specific hypotheses for positive relationships where proxies are expected to be related to disagreement of some type. Almost all of the proxies have specific hypotheses about how

they are expected to be related to disagreement in the form of either underreporting or overreporting. For instance, there may be some proxies that could be related to female underreports and other proxies that could be related to her overreports of violence. An exception is relationship duration because that is one proxy where I do not have specific hypotheses for whether it will lead to underreporting or overreporting. Instead, I hypothesized that longer relationship duration should be related to more disagreement, but I do not know which type will be more likely so all of them are possibilities. The hypotheses for depressed mood are also somewhat different from the other proxies because I have two competing hypotheses for how depression could affect types of disagreement.

I have only included hypotheses for positive relationships because these are based on where theory suggests that breakdowns in the cognitive response process could lead to disagreement. It is logical that if a proxy is positively related to the female underreporting perpetration, for example, then the same proxy could be negatively related to the female overreporting perpetration but I do not always expect this to be the case. In other words, just because a proxy for a breakdown in the cognitive response process could increase potential underreporting does not mean that it would necessarily reduce potential overreporting. In addition, many of the relationships are unknown because there is not enough theory or previous literature to make an informed hypothesis. For instance, it is often difficult to make informed hypotheses about how female characteristics (i.e. female drug use) will affect disagreement where the male under or overreports violence and vice versa for male characteristics explaining female disagreement.

Research Questions

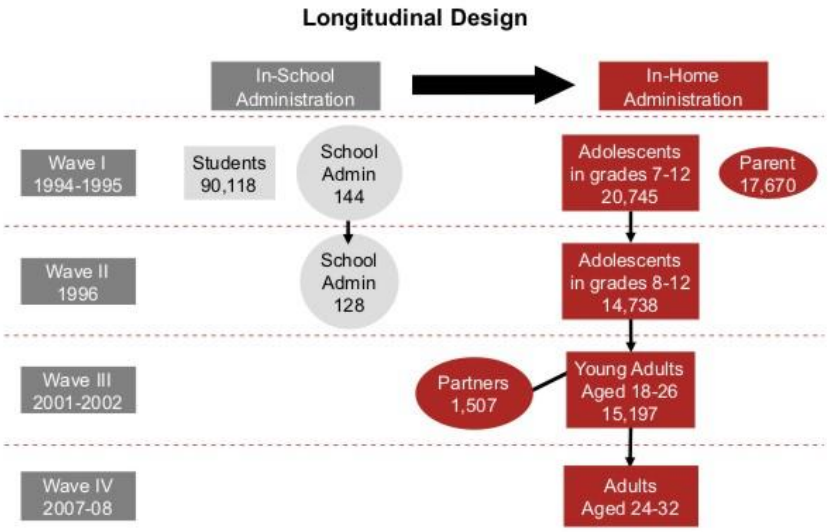
The purpose of my study is to answer three research questions. First, how much disagreement is there between partners and what effect does this have on the prevalence of reported violence found in this sample? Second, do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used? Third, how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence?

CHAPTER 3: METHODOLOGY

Data

For this study I use the Romantic Partner data, which is a subsample from the National Longitudinal Study of Adolescent Health (Add Health) data (see Figure 1, which shows the sample design of the full Add Health study to provide a context for the Romantic Partner sample). The Add Health study used a clustered and stratified sample design to select 20,745 students enrolled in 7th to 12th grade from 132 public and private schools across the U.S., beginning in 1994-1995. Wave III consisted of 15,197 follow-up in-home interviews with Wave I respondents who could be located in 2001-2002 and 1,507 in-home interviews with some of their romantic partners (Chantala 2006; Harris 2007). The response rates for the four waves of data collection are as follows: 78.9%, 88.2%, 77.4%, and 80.3%.

Figure 1: Add Health Study Design (Add Health Website 2009).



The target population for the Wave III Romantic Partner sample consisted of: "Couples in 2001 where at least one member of the couple was enrolled in US schools during the 1994-1995 academic year for the specified grades" (Chantala 2006). While

Add Health is a probability sample, the Romantic Partners sample is quasi-probability because although there was randomization initially, the final respondents were selected using a purposive design to reach a quota sample. The selection processes started with approximately fifty percent of the original Wave III sample randomly flagged for potential selection into the Romantic Partner interview. A computer algorithm evaluated the list of previous relationships provided by the respondent to determine recruitment into the Romantic Partner study based on the following four criteria: partners had to be current, of the opposite sex, at least 18 years old, and in a relationship with the original Add Health respondent for at least three months. Although IPV can occur in homosexual relationships (Burke and Follingstad 1999), this data only includes heterosexual partners; therefore they are the focus of my study.

Selected Add Health respondents were asked to give their partners a letter of introduction that invited them to participate in the couple sample. If their partner was available immediately then the Add Health interviewer tried to give them the letter and complete their interview on the same visit. All interviews were done in-person using a computer assisted personal interviewing (CAPI) system with the sensitive questions self-administered on a laptop computer (CASI). Sampling was done using a purposive design to obtain a quota sample of about 1,500 couples that consists of one-third married, one-third cohabiting, and one-third dating partners. Data collection was limited to about 1,500 couples due to cost restraints (Add Health Codebooks 2008). Figure 2 shows the breakdown of sample sizes for each of the stages of selection into the Romantic Partners' sample.

Figure 2. Add Health Sample Design.

Sample Size	Wave III
In-Home (total)	15,197
Random Selection Half Wave 3 sample	7,598
Eligible Partner Frame	3,982
Interviewed Partner	1,507

Sample Selection

The analytic sample for my study was reduced from 1,507 to 1,269 couples as a result of missing data on the dependent variable, several inconsistencies in the data, and the use of sampling weights. Of the 238 couples that were not included in the analytic sample, 10 of the Romantic Partners did not have enough data to be matched to an original Add Health respondent. Of those who could be matched, 103 Romantic Partners were missing the entire two sections on their romantic relationship histories, which include the questions on partner violence. A conversation with the Add Health data manager revealed that these 103 cases were missing these sections as a result of an error during data collection. After successfully matching the Add Health respondent with their Romantic Partner, two couples were removed from the sample because they had the same partner ID number. Additionally, one couple was removed because both partners had the same gender, which should not have occurred because heterosexuality was one of the eligibility criteria for the Romantic Partner sample. Although this was likely a data processing error I could not determine which partner's gender was coded incorrectly based on the available data. All analyses are weighted and as a result 81 couples were excluded because they did not have valid sampling weights. Finally, 41 couples were deleted because they had missing data on the IPV questions that made up the dependent

variable. Given that this study focuses on measurement error in reports of IPV, it did not seem appropriate to impute missing reports of IPV.

To maintain an analytic sample size of 1,269 couples, item nonresponse in the independent variables was handled using multiple imputation in IVEware, a SAS callable software application designed to run the Sequential Regression Imputation Method (Raghunathan et al. 2001). Ten complete data sets were created and then combined using Rubin's combining rules (Rubin 1987) in IVEware. The amount of missing data on the independent variables was relatively small (see Appendix D and E for observed *N*'s). To account for the complex survey design, coefficients were adjusted with sampling weights and standard errors were adjusted for stratification and clustering. Unfortunately, a sampling weight specific to the selection of couples into this sample is not available; therefore, the weight applies to the selection of the partner that was the original Add Health respondent. The stratification and cluster variables also apply to the original Add Health design.

Measures

Dependent Variable

Partner Violence. In this study I define partner violence as the occurrence of physical violence at some point in the duration of the current relationship. In the Add Health data the respondent reads and answers questions on partner violence using a CASI system. They read the following introduction before answering the set of relationship violence questions: "No matter how well a couple gets along, there are times when they disagree or fight. Couples have many ways of settling their differences. Please indicate

how often each of the following things has occurred *[if LONG = 1, add: "during the past year"]* in your relationship with <PARTNER>."

This study is based on two measures of physical violence: perpetration and victimization. The question on perpetration asks: "How often have you slapped, hit, or kicked <PARTNER>?" The same question is asked from the victim's standpoint: "How often has <PARTNER> slapped, hit, or kicked you?" Both questions have the same response options: 0 = never, 1 = once, 2 = twice, 3 = 3-5 times, 4 = 6-10 times, 5 = 11-20 times, 6 = more than 20 times, 7 = this hasn't happened in the past year, but did happen before then. Due to high positive skew where the majority of respondents report no violence, the two physical violence items above (i.e., perpetration and victimization) were dichotomized (0 = no violence reported in the relationship, 1 = at least one incident of violence was reported in the relationship).

By asking each partner about his or her perpetration and victimization, measures of male and female individual reports were created. *Male Report Perpetration* is the male's report of his own perpetration and *Male Report Victimization* is the male's report of his own victimization. *Female Report Perpetration* is the female's report of her own perpetration and *Female Report Victimization* is the female's report of her own victimization. Different combinations of the male and female reports of perpetration and victimization were used as the outcomes for the analyses addressing the three research questions and will be discussed in more detail in Chapter 4.

The dichotomization of violence is consistent with how previous researchers have studied disagreement about IPV, but it may have consequences when testing proxies for breakdowns in the cognitive response process. It may be easier to detect effects of these

proxies at some stages of the cognitive response process more than others when using dichotomized reports of violence. For instance, deliberate altering of the truth at the response stage may be easier to detect with the dichotomization of violence because a respondent may decide not to report any violence even though there was some violence. Errors at the other stages of the process, however, may not be as easy to detect because they may be more likely to affect the degree (more or less) of reporting. The dichotomization of violence means that some disagreement will be undetected (i.e. when both partners report violence but the frequency is different), but as a result it captures the most extreme form of disagreement where one partner reports some violence but the other does not. The majority of disagreement found in my data will be captured by the dichotomization of violence. Cross-tabulations of the original frequency of violence questions for male-perpetrated and female-perpetrated partner violence (shown in Appendix B and C, respectively) show that most of the disagreement between the male and female reports occurs where one partner reported no violence but the other partner reported some violence. In these situations where only one partner reported at least some violence, the frequency of violence was usually low (i.e. once or twice).

Independent Variables: Predictors of IPV

To address the second research question [do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used?] couple level, male, and female characteristics are used in the models predicting the probability of IPV (see Appendix D for a descriptive table of all the variables used in these analyses). The means or percentages reported below are based on the imputed data after applying the sampling weights. Relationship status, relationship duration, and race

were all measured at the couple level. *Relationship status* identifies couples who are dating, cohabitating, or married. There were inconsistencies in some of the couple's reports of relationship status (n = 135). In order to resolve the inconsistencies, the more committed status was chosen (i.e. married over cohabitating). Cohabitation is the reference category in the multivariate analyses. In this sample 26% of couples are dating, 36% are married, and 37% are cohabitating. *Relationship duration* was created by subtracting each partner's age at the start of their romantic relationship from their current age. If there were inconsistencies in the partner's reports then the female report was considered the baseline and if the male report was within two years above or below her report then the female report was used, but if the inconsistencies fell outside this range then the couple's score was considered missing (n = 92). Relationship duration ranged from 0 to 14 years (Mean = 3.17, s.d. = 2.24). *Couple race* was determined by comparing the male and female partner's individual reports of race. If both partners identified as the same race then they were coded into their respective races: Couple White, Couple Black, or Couple Hispanic. Because of small sample sizes, partners who both identified as Asian or both identified as Native American were combined into Couple Other, but the majority of this category was Asian. If the partners identified as being of different races then they were coded as Couple Mixed. Couple White is the reference category in the multivariate analyses. Among the couples in this sample, 68% are both White, 10% are both Black, 5% are both Hispanic, and 2% are both either Asian or Native American, and 15% are Mixed.

The following characteristics were all measured in the same way but separately for males and females: relationship satisfaction, childhood physical abuse, childhood

sexual abuse, alcohol use, drug use, depressed mood, education, and unemployment. *Relationship satisfaction* is based on the question, "In general, how satisfied are you with your relationship with <PARTNER>?" with responses ranging from 1 = very dissatisfied, 2 = somewhat dissatisfied, 3 = neither dissatisfied or satisfied, 4 = somewhat satisfied, to 5 = very satisfied (Males: Mean = 4.66, s.d. = .73; Females: Mean = 4.67, s.d. = .79). *Childhood physical abuse* is measured as a continuous variable based on the question, "By the time you started 6th grade, how often had your parents or other adult care-givers slapped, hit, or kicked you?" (0 = never, 1 = one time, 2 = two times, 3 = three to five times, 4 = six to ten times, 5 = more than ten times). Childhood physical violence ranged from 0 = never to 5 = more than ten times (Males: Mean = 1.01, s.d. = 1.67; Females: Mean = .78, s.d. = 1.48). *Childhood sexual abuse* was measured by the question, "By the time you started 6th grade, how often had one of your parents or other adult care-givers touched you in a sexual way, forced you to touch him or her in a sexual way, or forced you to have sexual relations?" (0 = never, 1 = one time, 2 = two times, 3 = three to five times, 4 = six to ten times, 5 = more than ten times). Seven percent of females and four percent of males reported any child sexual abuse; therefore, a dichotomous variable was used where 0 = never and 1 = at least one child sexual abuse experience.

Alcohol use was based on the question: "During the past 12 months, on how many days have you been drunk or very high on alcohol?" on a scale from 0 = none, 1 = one or two days, 2 = once a month or less, 3 = two or three days a month, 4 = one or two days a week, 5 = three to five days a week, to 6 = every day or almost every day (Males: Mean = 1.22, s.d. = 1.44; Females: Mean =.81, s.d. =1.10). *Drug use* is a dichotomous variable representing the use of any illicit drug in the past year including: cocaine, crystal meth,

any other type of illegal drug such as LSD, PCP, ecstasy, mushrooms, inhalants, ice, heroin, or prescription medicines not prescribed for the respondent; or injected any illegal drug such as heroin or cocaine (0 = did not use in past year; 1 = used at least one form of an illicit drug at least once in the past year). Among these young adults, 14% of males and 10% of females reported using at least one form of an illicit drug at least once in the past year.

Depressed mood consisted of nine items from the Center for Epidemiological Studies Depression scale (CES-D) (Radloff 1977). The CES-D requires respondents to reflect upon their experiences during the week prior to the interview and includes items such as "I felt that I could not shake off the blues, even with help from my family and my friends" and "I was bothered by things that don't usually bother me." Responses ranged from 0 (never or rarely) to 3 (most of the time or all the time). Positive items were reverse coded so that higher scores indicated more depressive symptomology ($\alpha = .80$ for males; $\alpha = .83$ for females). The scale ranged from 0 to 25 for males (Mean = 3.86, s.d. = 3.72) and 0 to 24 for females (Mean = 5.08, s.d. = 4.32). *Education* is a continuous variable measuring the highest grade or year of regular school the respondent completed. For males, the scale ranged from 7 to 21 years of education (Mean = 12.67, s.d. = 1.99) and 6 to 20 years of education for females (Mean = 12.86, s.d. = 1.96). *Unemployed* is a dichotomous variable that represents respondents who are not working for pay for at least 10 hours a week and not currently attending regular school (i.e. not vocational or trade school) versus those who are employed for more than 10 hours a week or attending school at least part-time (0 = employed, 1 = unemployed). Unemployment takes into account school status because this is a young adult population between the ages of 18 to

26 and many of them are not working but attending college full time. In this sample, 15% of males and 24% of females reported being unemployed.

Independent Variables: Proxies of the Cognitive Response Process (CRP)

Several of the predictors of IPV used to address the second research question [do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used?] were also used as proxies of the cognitive response process when predicting disagreement for the third research question (how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence?) including: depressed mood, relationship duration, relationship satisfaction, alcohol use, drug use, and unemployment. See Appendix E for a descriptive table of all the variables used in the analyses that address the third research question. The means or percentages reported below are based on the imputed data after applying the sampling weights. One modification was made to the drug use variable in the CRP models. Drug use in the CRP models includes marijuana use because although marijuana use is not commonly included as an illicit drug when predicting IPV, it can still have an effect on a person's memory which was the purpose of the drug variable in the CRP models. According to this coding, 36% of males and 30% of females reported using at least one type of drug, including marijuana, at least once in the past year. There were also several new variables. *Female relationship management* was measured by the female's response to the question, "In your relationship with <PARTNER>, what proportion of the time do you try to notice and respond to <PARTNER>'s mood changes?" where responses ranged from 0 = hardly never, 1 = less half time, 2 = half time, 3= more half time, to 4 = most time (Mean = 3.00, s.d. = 1.18). *Social desirability* was measured by

the question, “Do you agree or disagree that your behavior often depends on how you think other people want you to behave?” Responses were reverse coded so that higher scores represent higher social desirability (1 = strongly disagree, 2 = disagree, 3= neither agree nor disagree, 4 = agree, 5 = strongly agree). This variable was measured in the same way for males and females (Males: Mean = 2.30, s.d. = .98; Females: Mean = 2.33, s.d. = .97). *Relationship commitment* was measured by the male and female reports of their commitment to their relationship based on the question, “How committed are you to your relationship with <PARTNER>?” on a scale from 1 = not at all committed, 2 = somewhat committed, 3 = moderately committed, 4 = very committed, to 5 = completely committed (Males: Mean = 4.55, s.d. = .94; Females: Mean = 4.70, s.d. =.78).

Male masculinity was measured by the sum of males’ responses to how often he thinks the following statements are true of him: “I am independent; I am assertive; I am forceful; I am dominant; and I am aggressive.” Higher values on this scale represent more masculinity (1 = never or almost never true, 2 = usually not true, 3= sometimes but infrequently true, 4 = occasionally true, 5 = often true, 6 = usually true, 7 = always or almost always true). The masculinity scale ranged from 1 to 35 (Mean = 21.33, s.d. = 5.70, $\alpha = .83$). *Lack of Privacy* is a dichotomous variable representing the interviewer’s report about whether or not there “Was a third person present during any portion of the interview—not just walking through the area where the interview was being conducted, but listening to or taking part in the interview process” (0 = no 1 = yes). This variable was created in the same way for males and females. According to interviewer reports, 37% percent of males and 30% of females had a third person present during their interview.

CHAPTER 4: RESULTS

The results are divided into three sections according to my three research questions. My three research questions are: 1) how much disagreement is there between partners and what effect does this have on the prevalence of reported violence found in this sample, 2) do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used, and 3) how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence? First I provide a preview of my findings for all three research questions and then I discuss the procedures and findings for each research question in detail.

Preview of Findings

Overall, the results for my first research question showed that disagreement [i.e. where one partner reported intimate partner violence (IPV) but the other partner did not] does exist. The prevalence of male and female violence varied across the three reports of violence: the male partner's report, the female partner's report, and the combined couple report where either partner reported violence. For example, when comparing the male and female reports of IPV, I found that females were more likely to report both perpetration and victimization compared to their male partners. In addition, there was also more disagreement in partner's reports of female-perpetrated violence compared to male-perpetrated violence.

The results for my second research question showed that the significance of many predictors of IPV varied depending on whether the male partner's report, the female

partner's report, or the couple report was used to estimate partner violence. For example, some predictors such as female alcohol use were only significant when predicting the female report of perpetration, but not the male or couple reports of female-perpetrated violence. Few predictors of IPV were significant across all three reports of violence (i.e. male, female, and couple reports).

With regard to my third research question, I found some evidence that breakdowns or errors in stages of the cognitive response process [i.e. how respondent's encode (e.g., store) memories, comprehend survey questions, retrieve memories, and edit their responses] were related to underreports and overreports of male-perpetrated and female-perpetrated partner violence. As an example, higher relationship commitment was related to underreporting perpetration for males and females. This finding provides support for the hypothesis that people who are more invested in their relationship may have more to lose if it were to end; therefore, they deliberately edit their responses for fear of it jeopardizing the stability of their relationship.

Disagreement and the Prevalence of IPV

The purpose of the first research question was to determine how much disagreement there is between partners and how this disagreement affects the reported prevalence of IPV. The prevalence of IPV was compared across three reports of violence including the male partner's report, the female partner's report, and the couple report where either partner reported violence. Differences across these three reports provided evidence of how disagreement in reports of violence affected the prevalence of violence found in my sample. Disagreement can only be measured when using couple level data;

therefore, couples were separated into those who agreed there was violence, those who disagreed about violence, and those who agreed there was no violence in their relationship to measure how much disagreement there was between partners.

To address the first research question (how much disagreement is there between partners and what effect does this have on the prevalence of reported violence found in this sample?) contingency tables of reported IPV were created for both male and female-perpetrated violence (see Figure 3 below). To see how disagreement affects the prevalence of violence, the male report of violence (see equation 1 below) was compared to the female report of violence (see equation 2 below) and the couple report where either partner reports violence (see equation 3 below). These comparisons show what the prevalence of IPV would be when using different reports of violence. The male and female reports show the prevalence of violence when only using one-partner reports, as is commonly done when studying partner violence. The assumption is that their reports should be the same or at least be a good proxy for the other partner. If the male and female reports are different then this shows that there is disagreement in their reports. If there is disagreement then the couple report will also be different from the one-partner reports. The couple report where either partner reports violence can be broken down into couples who agreed there was violence (see equation 4 below) and those who disagreed about violence (see equation 5 below). These couples can be compared to those who agreed there was no violence (see equation 6 below). These comparisons show how much disagreement there is between male and female partners.

Figure 3. Cross-tabulations of Male and Female Reports of Male-Perpetrated and Female-Perpetrated Partner Violence.

	Male-Perpetrated Partner Violence				Female-Perpetrated Partner Violence		
	Female Partner				Female Partner		
Male Partner	No Violence (=0)	Yes Violence (=1)	Total	Male Partner	No Violence (=0)	Yes Violence (=1)	Total
No Violence (=0)	a	b		No Violence (=0)	a	b	
Yes Violence (=1)	c	d		Yes Violence (=1)	c	d	
Total				Total			

$$\hat{p}_{Male\ report\ violence} = \frac{c+d}{a+b+c+d} \quad \textbf{(Equation 1)}$$

$$\hat{p}_{Female\ report\ violence} = \frac{b+d}{a+b+c+d} \quad \textbf{(Equation 2)}$$

$$\hat{p}_{Either\ report\ violence} = \frac{b+c+d}{a+b+c+d} \quad \textbf{(Equation 3)}$$

$$\hat{p}_{Agree\ Violent} = \frac{d}{a+b+c+d} \quad \textbf{(Equation 4)}$$

$$\hat{p}_{Disagreement} = \frac{b+c}{a+b+c+d} \quad \textbf{(Equation 5)}$$

$$\hat{p}_{Agree\ Nonviolent} = \frac{a}{a+b+c+d} \quad \textbf{(Equation 6)}$$

Table 1 includes the actual unweighted numbers based on the male and female reports of violence. The results from Table 1 are depicted in graphical representation according to the proportions identified in equations 1 to 6. The prevalence of violence across different reports and the amount of disagreement in reports of violence are discussed first for male-perpetrated violence and then female-perpetrated violence.

Male-Perpetrated Violence

According to Graph 1, 7% of men reported perpetrating violence against their partner and 11% of women reported being victimized. Upon comparing male and female reports of violence, we see that 15% of couples had at least one partner who reported male-perpetrated violence. These reports show that women report more male-perpetrated violence than men. It is also clear that disagreement exists because the male and female

reports are different. As a result of disagreement, the prevalence of male-perpetrated violence changes depending on the report that is used. Specifically, the prevalence of male-perpetrated violence can range from 7% to 15% depending on the report. In addition, this shows that one-partner reports will provide a different estimate of the prevalence of male-perpetrated violence than the couple report. This means that studies using one-partner reports may find a different prevalence of violence than studies using couple level reports.

The 15% of couples where either partner reported violence from Graph 1 can be further divided (see Graph 2) into those couples who both agreed there was violence (3%) and couples who disagreed because only one partner reported violence (12%). Of the 12% of couples who disagreed about male-perpetrated violence, 8% of them disagreed such that the female reported victimization but the male did not report perpetration and 4% of them disagreed such that the male reported perpetration but the female did not report victimization (see Table 1). This shows that disagreement is four times more common than agreement about the presence of male-perpetrated violence. In other words, the majority of couples who are identified as experiencing male-perpetrated violence have only one partner reporting violence. It is not surprising, however, that the majority of couples (85%) agreed there was no male-perpetrated violence in their relationship because in general more couples are nonviolent than violent.

Female-Perpetrated Violence

More violence and disagreement about violence was identified for female-perpetrated violence than male-perpetrated violence. As indicated in Graph 3, 17% of males reported victimization, but 22% of females reported perpetrating violence. As with

male-perpetrated violence, women report more female-perpetrated violence than their partners. There is evidence of disagreement because the male and female reports of female-perpetrated violence are different. Upon comparing female and male reports of violence, 30% of couples had at least one partner reporting female-perpetrated violence. This shows that one-partner and couple reports provide different estimates of the prevalence of female-perpetrated violence. The prevalence of female-perpetrated violence ranged from 17% to 30% depending on the report that was used. This suggests studies using one-partner data may find different estimates of the prevalence of female perpetration than studies using couple level data.

The 30% of couples where either partner reported female-perpetrated violence from Graph 3 are separated into couples who agreed and disagreed about the presence of violence in Graph 4. According to Graph 4, 9% of couples both reported female-perpetrated violence compared to 21% of couples who disagreed that the female partner had been violent. Of the 21% of couples who disagreed about female-perpetrated violence, 14% of them disagreed such that the female reported perpetration but the male did not report victimization and 8% of them disagreed such that the male reported victimization but the female did not report perpetration (percentages may vary slightly due to rounding, see Table 1). As with male-perpetrated violence, there is more disagreement than agreement about female-perpetrated violence. This is the most interesting part of the graph because it suggests that data using only one partner's report may not adequately represent the couple. For example, 21% of the time their partner would not make the same report in my data. Once again it is not surprising that the majority of couples (70%) agreed on the absence of female-perpetrated violence.

Together the findings for male-perpetrated and female-perpetrated violence show that females were more likely to report both victimization and perpetration compared to their partners. This means that for some reason females perceive more violence in their relationship than males. In addition, female-perpetrated violence was more common in this sample. Twice as many couples had at least one partner reporting female perpetration compared to male perpetration in this sample (30% versus 15%, respectively). Disagreement about female-perpetrated violence was also more common: almost twice as many couples disagreed about the presence of female-perpetrated compared to male-perpetrated violence (21% versus 12%, respectively). Disagreement does affect the prevalence of IPV because the percentage of couples identified as experiencing male-perpetrated and female-perpetrated violence changed depending on whether the male report, female report, or couple report was used.

Predictors of IPV Across One-Partner and Couple Reports of IPV

The goal of the second research question [do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used?] was to determine if the significance of common predictors of intimate partner violence changed depending on the report of violence that was used to estimate IPV. Comparisons were made across the three reports of violence: the male partner's report, the female partner's report, and the couple report where either partner reported violence. Differences in the significance levels of the same predictor across these three reports would show that disagreement between the partners does affect the conclusions about common predictors of intimate partner violence.

To address the second research question separate logistic regression models were run predicting the probability of partner violence (1 = violence did occur at least once in the relationship, 0 = violence did not occur in the relationship) based on the male report, female report, and the couple report where either partner reports violence (see Table 2). All three regressions were run separately for male and female violence. Male and female predictors were included in all models because they both may be related to IPV. This allows me to control for the other partner's characteristics when they are both included in the same model. For example, both male and female depression were included in the models so that the effect of male depression controls for the effect of female depression and vice versa. Correlation analyses (results not shown) revealed that multicollinearity was not a concern between the male and female characteristics. Additionally, I conducted analyses for selected characteristics to see if the inclusion of the same characteristic for the other partner increased standard errors. My results again show that multicollinearity was not a concern. The main focus of these models is not to interpret the coefficients (which is why they are not provided in Table 2), but rather to see how the significance levels of coefficients (ranging from .001 to .10) vary across different reports of IPV (see Appendix F for a table with the coefficients). Therefore, *patterns* of significant coefficients (indicated by level of significance only) were compared across the six models. A pattern of coefficients that is significant across all three reports of IPV is shaded in darker gray while inconsistent patterns, where the coefficient for the same independent variable is significant for only some reports of IPV (e.g. significant for the male report but not the female report), are shaded in lighter gray. The direction of relationships (but not the actual odds ratios) are included to show how the predictors are

related to IPV. This makes the discussion of the results more meaningful because it provides a context for significant or nonsignificant findings.

In order to see how results vary by the report of violence that is used, the significance of predictors of IPV was compared across the three reports of violence: male report, female report, and couple report where either partner reports violence for male-perpetrated and female-perpetrated violence separately. Significant relationships that vary across reports of violence indicate that those predictors differentially affect partner's perceptions about IPV. If some variables are significant when using the female, but not the male report, then those predictors have a greater effect on her perceptions about IPV and vice versa. Measurement error due to disagreement in reports of violence is evidenced by inconsistent significant predictors of IPV across the three reports of violence. As a result, conclusions about the important predictors of IPV may change depending on the report of violence. Inconsistent findings that provide evidence for the effect of measurement error in reports of violence are discussed first, followed by consistent relationships that are robust to measurement error for male-perpetrated violence and then female-perpetrated violence.

Male-Perpetrated Violence

For male-perpetrated violence there were eight variables that were affected by disagreement (shown in the lighter gray shading across the first three columns in Table 2). Inconsistencies in the significance of predictors of IPV means that conclusions about the important predictors of IPV changes depending on the report of violence that was used. For example, according to the female report of victimization and the couple report we would conclude that dating couples were less likely to be involved in physically

abusive relationships compared to cohabitors; however, relationship status was not significant when using the male report of perpetration. Male relationship satisfaction was a protective factor against male-perpetrated violence when using the couple report only. Male drug use was an important risk factor for male-perpetrated violence according to only the male report. More depressed males were more likely to be perpetrators according to the male and couple report but not the female report. Female relationship satisfaction was a protective factor against male-perpetrated violence when using the female and couple report, but not the male report of violence. According to the couple report only, female physical childhood abuse was positively related to male-perpetrated violence. Female childhood sexual abuse would be identified as a risk factor for male perpetration when using the male or couple reports, but not the female report. Finally, more depressed females were also more likely to be victims but only when using the female report of violence. These eight predictors of male-perpetrated violence may be more susceptible to mixed findings across studies using one-partner versus couple level data because their relationship with IPV changed depending on the report of violence (i.e. male partner, female partner, couple) that was used.

There was one consistent predictor across reports of male-perpetrated violence (as shown by the dark gray across Columns 1 to 3 in Table 2). Relationship duration was positively related to male-perpetrated violence across all three reports of violence. This relationship was robust to changes in the report of violence which means this relationship may be more consistent across studies using one-partner versus couple level data. Next, the effects of measurement error on predictors of female-perpetrated violence are discussed.

Female-Perpetrated Violence

For female-perpetrated violence there were ten variables affected by disagreement (shown in the lighter gray shading across Columns 4 to 6 in Table 2). For example, according to the female report of perpetration and the couple report we would conclude that couples who are dating are less likely to be involved in relationships where the female was violent compared to cohabitors, but this was not found when using the male report of victimization. Male drug use was an important risk factor for female-perpetrated violence according to the male and couple reports but not the female report. Males who are more depressed were more likely to be victims according to the male report of victimization and the couple report, but not the female report of perpetration. When using the female report of perpetration or the couple report, male education was identified as a protective factor for female perpetration, but this was not found when using the male report of victimization. When using only the couple report, males who are unemployed were less likely to experience female-perpetrated violence. Female relationship satisfaction was a protective factor against female-perpetrated violence when using the female but not male or couple reports of violence. Female childhood sexual abuse was a risk factor for female-perpetrated violence according to the couple report, but not the other reports of violence. For alcohol use, females who used alcohol were more likely to perpetrate violence but only when using the females' reports of violence. According to the male report of victimization, female drug use was a protective factor against female-perpetrated violence. Finally, female unemployment was a protective factor for female perpetration according to the female report of violence, but not when using the male reports of violence. These ten predictors of female-perpetrated violence may be more

susceptible to mixed findings across studies using one-partner versus couple level data because their relationship with IPV changed depending on the report of violence (i.e. male partner, female partner, couple) that was used.

There were two consistent predictors of IPV across all three reports of female-perpetrated violence (as shown by the dark gray across Columns 4 to 6 in Table 2). Longer lasting relationships were more likely to experience female-perpetrated violence according to all three reports of violence. Additionally, more depressed females were more likely to be perpetrators when using all three reports of violence. These relationships were robust to changes in the report of violence that was used to measure female-perpetrated violence which means these relationships may be more consistent across studies using one-partner versus couple level data.

Patterns of Relationships across Male-Perpetrated and Female-Perpetrated Violence

Some of the variables affected by disagreement were similar for male-perpetrated and female-perpetrated violence (these patterns can be identified where the light gray shading goes across all six columns). For example, dating (vs. cohabiting), male drug use, male depressed mood, female relationship satisfaction, and female childhood sexual abuse had inconsistent relationships across the three reports of both male-perpetrated and female-perpetrated violence. Other variables were only inconsistent across male-perpetrated violence such as male relationship satisfaction and female physical abuse, which suggests that these predictors were more affected by disagreement in reports of male-perpetrated violence. These patterns are shown when the light shading only goes across Columns 1 to 3. Likewise, the variables that only varied across reports of female-perpetrated violence included male education and unemployment, female alcohol and

drug use, and female unemployment, as indicated when the light shading only goes across Columns 4 to 6.

Consistent with my hypotheses, there was a general pattern that *male* characteristics more often significantly predicted *male* reports of perpetration and victimization rather than the female reports of violence. For instance, male depressed mood was a better predictor of the male reports of IPV compared to female reports. Likewise, female characteristics significantly predicted female reports of perpetration and victimization more often than male reports of violence. For example, female relationship satisfaction was a better predictor of the female report of perpetration and victimization compared to her partner's reports of violence because the relationship was significant when using the female report but not the male report. These patterns did not hold for female childhood sexual abuse and male education.

Without making assumptions about the nature of the disagreement it is impossible to know which report is more accurate, but it is clear that measurement error in reports of violence does change the significant relationships between predictors and IPV. In other words, the overall conclusions about the characteristics of couples that are associated with a heightened or reduced prevalence of IPV vary depending on whether the male partner, female partner, or either partner report is used to measure relationship violence. Several of the predictors of IPV are also used as proxies of the cognitive response process when predicting disagreement for the third research question (how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence?). These include: depressed mood, relationship duration, relationship satisfaction, alcohol use, drug use, and unemployment. With the exception of relationship

duration, all of these predictors were affected by disagreement (i.e. the significance of their relationship to IPV varied across the three reports of violence), which suggests they may be good proxies for errors in the cognitive response process that could explain disagreement in male and female reports of IPV.

Proxies of the Cognitive Response Process Predicting Disagreement

The goal of the third research question (how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence?) was to examine whether proxies for errors in how respondents answer survey questions could predict disagreement in the form of underreporting or overreporting of violence. Different comparisons of disagreement and agreement were created to identify underreporting and overreporting for both the male and female partner's perpetration and victimization. These comparisons are described in more detail below.

To examine the third research question, two separate multinomial logistic regression models were estimated for male and female violence. To create the dependent variable for these models the male and female reports of IPV were compared to determine where there was disagreement and agreement in their reports of violence. There were two disagreement categories and two agreement categories that together make up the four category dependent variable for the multinomial logistic regression models: 1) disagreement where the male reported violence but the female did not, 2) disagreement where the female reported violence but the male did not, 3) agreement about the presence of violence, and 4) agreement about the absence of violence.

By using multinomial logistic regression, *comparisons* of these four categories that could represent both types of disagreement - overreporting and underreporting - for both the male and female partners were created. By examining both partners' underreports and overreports of violence I am allowing for either possibility because without validation data it is impossible to tell whose report represents the "truth" when there is disagreement. Without separating disagreement into underreporting and overreporting it is difficult to make sense of what the disagreement means when interpreting the results. By creating a comparison that could represent underreporting I can explore which proxies for breakdowns in the cognitive response process may be related to underreporting, if hypothetically that was the reason for disagreement. Concurrently, I can create a comparison to explore which proxies may be related to overreporting because this is the other viable explanation for the same pattern of disagreement.

For example, there are two explanations for disagreement where the male reports perpetration but the female does not report victimization: the male could be overreporting his perpetration or the female could be underreporting her victimization. By comparing couples who disagreed about male-perpetrated violence where the male reported perpetration but the female did not report victimization to couples where both partners did not report male-perpetrated violence I assessed the possibility that the male report of violence may be an overreport of perpetration relative to his partner's report. The assumption is that couples who agree have more reliable data than those who disagree. Among those couples who disagreed, the partner whose report of violence matched the couples in the reference category was assumed to be more accurate for that particular

comparison. Among the couples who disagreed in the example above, the female partner's report was assumed to be more accurate because she did not report violence and the couples in the reference category also did not report violence. Consequently, among the couples who were in disagreement the partner whose report did not match the reference category was assumed to be the report with measurement error for that particular comparison. Among the couples who disagreed in the example above, the male partner's report was seen as the report with error because he reported violence but the couples in the reference category did not. Because the female's report was seen as more accurate in this comparison and she did not report violence, then his report of perpetration was seen as a possible overreport. The other possibility was that the female underreported victimization.

By comparing the same couples who disagreed about male-perpetrated violence (i.e. where the male reported perpetration but the female did not report victimization) to those couples who both did report male-perpetrated violence, I assessed the possibility that the female report may be an underreport of victimization relative to her partner's report. By changing the reference category to couples who agreed about the presence of violence the male report matched the reference category and was seen as the more accurate report in this comparison. Because the male reported violence and was assumed to be more accurate in this comparison, then the female's report was seen as an underreport because she did not report violence. It is the *comparison* between the same type of disagreement (e.g., where the male reported perpetration but the female did not report victimization) and both types of agreement (i.e. where both partners reported

violence or both did not report violence) that allowed me to evaluate underreporting and overreporting of violence.

Overall, I am not saying that I know which partner's report was more accurate or that I think one partner's report should be more accurate. I tried to assess the possibility that *either* report could be more accurate (or less accurate) by examining both underreporting and overreporting. Previous research has made similar comparisons to evaluate underreporting, but they neglected to include overreporting because they assumed that underreporting is the most likely explanation for disagreement about IPV (Anderson 1997; Szinovacz and Egley 1995). I do not want to make this same assumption because both underreporting and overreporting of IPV are possible and we do not know whose report was more accurate so I want to assess both types of measurement error.

To create comparisons to assess underreporting and overreporting two separate multinomial regression models were estimated. These two multinomial regressions were estimated in the same way for both male-perpetrated and female-perpetrated violence. Each of these regressions used the same four category dependent variable: 1) disagreement where the male reported violence but the female did not, 2) disagreement where the female reported violence but the male did not, 3) agreement where both partners reported violence, and 4) agreement where both partners did not report violence. The difference between the two multinomial regression models was the reference category. In the regression model assessing underreporting the reference category was agreement about the presence of violence (see category 3 above). In the regression model

assessing overreporting the reference category was agreement about the absence of violence (see category 4 above).

For example, in the multinomial regression where agreement about the absence of violence (category 4) is the reference category then categories 1, 2, and 3 were compared to category 4. These comparisons allowed me to assess overreporting of IPV. The comparison between couples who disagreed because the male reported violence but the female did not (category 1) and couples who were in agreement about the absence of violence because both partners did not report violence (category 4) allowed me to assess *Male Overreporting*. Similarly, *Female Overreporting* was assessed by comparing couples who disagreed because the female reported violence but the male did not (category 2) to couples who were in agreement about the absence of violence because both partners did not report violence (category 4). Because I was only interested in explaining disagreement for my third research question, I did not include the comparison between the two agreement categories (i.e. agreement where both partners reported violence (category 3) and agreement where both partners did not report violence (category 4)) in my results.

In the multinomial regression where agreement about the presence of violence (category 3) was the reference category then categories 1, 2, and 4 were compared to category 3. These comparisons allowed me to assess underreporting of IPV. The comparison between couples who disagreed because the male reported violence but the female did not (category 1) and couples who were in agreement because both partners reported violence (category 3) allowed me to assess *Female Underreporting*. Likewise, *Male Underreporting* was examined by comparing couples who disagreed because the

female reported violence but the male did not (category 2) to couples who were in agreement because both partners reported violence (category 3). Because I was only interested in explaining disagreement, I did not include the comparison between the two agreement categories - category 4 (agreement where both partners did not report violence) and category 3 (agreement where both partners reportedviolence) - in my results.

The results for both overreporting and underreporting are shown together in Tables 3 to 5 for male-perpetrated violence and Tables 6 to 8 for female-perpetrated violence. These tables are different from what is typically expected when seeing multinomial logistic results because the reference category is not the same for all columns. The reference category is the same when assessing male and female overreporting (see Columns 1 and 2) and the same for male and female underreporting (see Columns 3 and 4).

To test my hypotheses, each proxy of the cognitive response process was entered into both of the multinomial logistic regression models (i.e. one where the reference category is agreement about the presence of violence and one where the reference category is agreement about the absence of violence) separately to examine their bivariate relationship with disagreement about male-perpetrated violence (Table 3) and female-perpetrated violence (Table 6). Then, proxies were analyzed as separate blocks according to stages of the cognitive response process (i.e. encoding, comprehension, and so forth). Proxies were analyzed as separate blocks instead of being stepped into the same model in a hierarchical structure because the stages of the response process are not always linear or hierarchical. For instance, respondents can go back and

forth between stages or skip stages altogether. The multivariate blocked analyses are shown in Table 4 for male-perpetrated violence and Table 7 for female-perpetrated violence. Finally, all of the proxies were put in the full model simultaneously to examine their multivariate relationship with disagreement about male-perpetrated violence (Table 5) and female-perpetrated violence (Table 8) controlling for all other proxies of the cognitive response process. Significant positive coefficients indicate that proxies used for breakdowns in the cognitive response process are related to some form of disagreement before and/or after controlling for all other proxies. These tables look different than what is typically expected for multinomial logistic regression results because the reference category is not the same for all models. This is because these tables combine the results from two multinomial logistic regression models where the reference category was different in each. According to my expectations discussed in the Cognitive Response Processing Errors section of Chapter 2, interactions between male and female relationship satisfaction, unemployment, and relationship commitment were also tested across the bivariate, blocked, and full models and significant interactions are shown in Tables 9 and 10. Graphs 5, 6, and 7 show significant interactions at the bivariate level for simplicity.

The results for male-perpetrated violence are discussed first, followed by the results for female-perpetrated violence. Findings are discussed for the bivariate, blocked, and full regression analyses at the same time, but changes to the significance level of the coefficients are indicated in the text and in the parentheses where the odds ratios are provided. For instance, if a finding for male-perpetrated violence is only significant in the bivariate and blocked analyses then the table reference in the text will direct the reader to Tables 3 and 4 and only the bivariate and blocked odds ratios will be reported in the

parentheses following the discussion of the finding. Results are discussed according to the stages of the cognitive response process and in the order that the proxies are listed in the tables. I go down the list of proxies and for each one discuss their relationship across the four patterns of disagreement (see Columns 1 to 4). I first discuss the findings that relate to specific hypotheses I made and then discuss additional findings. The bivariate, blocked, and full multinomial regression results predicting the likelihood of disagreement about male-perpetrated violence are shown in Tables 3 to 5. The bivariate, blocked, and full multinomial regression results predicting the likelihood of disagreement about female-perpetrated violence are shown in Tables 6 to 8. These tables look different than what is typically expected for multinomial logistic regression results because these tables combine the results from two multinomial logistic regression models where the reference category was different in each. The reason for the two multinomial regression models is reviewed below.

I have set up comparisons to assess *potential* underreporting and overreporting by both partners. I did this by running two multinomial logistic regression models where the reference category was agreement about the absence of violence when assessing possible overreporting and agreement about the presence of violence when assessing potential underreporting. I use the terminology of underreporting and overreporting as a way to provide some context or meaning to disagreement because it further elaborates on the possible scenarios for which partner had error in their report (e.g., she could have underreported victimization or he could have overreported perpetration). Using this terminology also simplifies the discussion of each comparison. I do not use

underreporting and overreporting as statements of fact because I do not know whose report was more accurate.

Male-Perpetrated Partner Violence

Encoding

Male Depressed Mood. As hypothesized, male depressed mood was associated with an increase in the odds of potential male overreports of perpetration compared to couples who agreed about the absence of male-perpetrated violence in Column 1 of Tables 3 to 5 (bivariate OR = 1.12, $p < .01$; blocked OR = 1.15, $p < .01$; full OR = 1.16, $p < .05$). Also, in Column 3 of Tables 3 to 5 the relationship between male depressed mood and potential male underreports of perpetration was negative such that higher levels of male depressed mood decreased the odds of the male partner potentially underreporting perpetration compared to couples who agreed about the presence of male-perpetrated violence (bivariate OR = .84, $p < .001$; blocked OR = .84, $p < .01$; full OR = .88, $p < .05$). These findings suggest that higher male depression may be related to an increased likelihood of male overreports of perpetration and a reduced likelihood of his underreports of perpetration.

Female Depressed Mood. Similar to male depressed mood and in accordance with hypotheses, in Column 2 of Tables 3 to 5, female depressed mood was associated with an increase in the odds of potential female overreports of victimization compared to couples who agreed about the absence of male-perpetrated violence (bivariate OR = 1.09, $p < .01$; blocked OR = 1.09, $p < .01$; full OR = 1.09, $p < .05$). In addition, female depressed mood decreased the odds of the female partner potentially underreporting victimization compared to couples who agreed about the presence of male-perpetrated violence as

shown in Column 4 of Tables 3 to 5 (bivariate OR = .81, $p < .001$; blocked OR = .80, $p < .001$; full OR = .85, $p < .05$). These findings suggest that higher female depression may be a proxy for error in the encoding stage that could be related to female overreports of victimization, but not underreports of victimization.

There were also a few significant findings that were not based on a specific hypothesis. For example, in Column 3 of Table 3 female depressed mood was related to a 5% decrease in the odds of the male partner potentially underreporting perpetration compared to couples who agreed about the presence of male-perpetrated violence, but this relationship was only marginally significant at the bivariate level (OR = .95, $p < .10$). In addition, female depressed mood became significantly related to a 10% decrease in the likelihood of the male potentially overreporting perpetration compared to couples who agreed about the absence of male-perpetrated violence in the multivariate models in Column 1 of Tables 4 to 5 (bivariate/blocked OR = .90, $p < .05$). Overall, these findings suggest that female depressed mood could be associated with an increased likelihood of potential female overreports, but not male overreports of male-perpetrated violence. In addition, there is some evidence that female depressed mood may reduce the likelihood for potential female or male underreports of male-perpetrated violence.

Female Relationship Management. I had hypothesized that female relationship management would be positively related to the male partner potentially underreporting perpetration because women's greater focus on the relationship may help them encode memories of violence more elaborately but this was not supported in the bivariate or multivariate findings for male-perpetrated violence.

Comprehension

Male Relationship Satisfaction. Contrary to expectations I did not find that higher male relationship satisfaction significantly increased the odds of the male partner potentially underreporting perpetration. Instead, I found that higher male relationship satisfaction reduced the odds of the male partner potentially overreporting perpetration by 35% compared to couples who agreed about the absence of male-perpetrated violence in Column 1 of Tables 3 to 4 (bivariate/blocked OR = .65, $p < .05$). Although I did not have a hypothesis for this relationship, in Column 2 of Tables 3 to 4 I also found that male relationship satisfaction was related to a 24% decrease in the odds of the female partner potentially overreporting victimization compared to couples who agreed about the absence of male-perpetrated violence (bivariate/blocked OR = .76, $p < .10$). Both of these findings suggest that higher male relationship satisfaction could be related to a reduced likelihood for potential overreports of male-perpetrated violence for either partner.

Female Relationship Satisfaction. As hypothesized, female relationship satisfaction increased the odds of the female partner potentially underreporting victimization compared to couples who agreed about the presence of male-perpetrated violence as shown in Column 4 of Tables 3 to 4 (bivariate OR = 1.86, $p < .05$; blocked OR = 1.90, $p < .05$). I also found that female relationship satisfaction was negatively related to the female partner potentially overreporting victimization. In fact, in Column 2 of Tables 3 to 5 female satisfaction reduced the odds of potential female overreports of victimization compared to couples who agreed about the absence of male-perpetrated violence (bivariate/blocked OR = .55, $p < .001$; full OR = .65, $p < .05$). These findings suggest that female relationship satisfaction could be a proxy for errors at the

comprehension stage of the cognitive response process that may be related to an increased likelihood of potential female underreports of victimization and reduced likelihood of possible female overreports of victimization. In addition, I tested for interactions between male and female relationship satisfaction for the four types of disagreement, but none were significant.

Retrieval

Relationship Duration. In accordance with hypotheses, there was some indication that longer relationships were associated with more disagreement. For instance, in Column 1 of Tables 3 to 5 longer relationships were associated with a 26-to-28% increase in the probability that the male partner could be overreporting perpetration compared to couples who agreed about the absence of male-perpetrated violence (bivariate OR = 1.26, $p < .01$; blocked OR = 1.27, $p < .01$; full OR = 1.28, $p < .01$). In Column 3 of Table 4 relationship duration was negatively associated with the male partner potentially underreporting perpetration in the multivariate blocked regression (blocked OR = .80, $p < .05$). These findings suggest that longer relationship duration may be a proxy for errors in the retrieval stage of the cognitive response process that could be related to an increased likelihood of potential male overreports of perpetration and a reduced probability of potential male underreports of perpetration.

Male Substance Use. I did not find support for my hypotheses for male alcohol and drug use. Contrary to my hypotheses,male alcohol use (see Column 3 of Tables 3 to 5) and male drug use (see Column 3 of Table 3) were negatively related to the likelihood of the male partner potentially underreporting perpetration compared to couples who agreed about the presence of male-perpetrated violence (alcohol use: bivariate OR = .61,

$p < .001$; blocked OR = .65, $p < .01$; full OR = .68, $p < .05$; and drug use: bivariate OR = .21, $p < .01$). Although I did not have formal hypotheses for these relationships, I also found that male alcohol use was negatively related to the male partner potentially overreporting perpetration compared to couples who agreed about the absence of male-perpetrated violence as shown in Column 1 of Table 3 (bivariate OR = .76, $p < .10$). In addition, male alcohol use (see Column 4 of Tables 3 to 5) and male drug use (see Column 4 of Table 3) were negatively related to the likelihood of the female partner potentially underreporting victimization compared to couples who agreed about the presence of male-perpetrated violence (alcohol use: bivariate OR = .49, $p < .001$; blocked OR = .58, $p < .05$; full OR = .58, $p < .05$; and drug use: bivariate OR = .27, $p < .05$). Overall, these findings suggest that male substance use may reduce the likelihood of potential male and female underreports of male-perpetrated violence and to some extent possible male overreports of perpetration.

Female Substance Use. My hypotheses were not supported for female substance use; in fact, my findings were in the opposite direction of what I had expected. For example, in Column 4 of Table 3 female alcohol and drug use reduced the odds of the female partner potentially underreporting victimization compared to couples who agreed about the presence of male-perpetrated violence (alcohol use: bivariate OR = .44, $p < .05$; and drug use: bivariate OR = .20, $p < .05$). Female drug use also reduced the likelihood that the male partner would potentially underreport perpetration compared to couples who agreed about the presence of male-perpetrated violence as shown in Column 3 of Table 3 (bivariate OR = .38, $p < .10$). These patterns of findings are very similar to the effects of male substance use and they suggest that female substance use may reduce the

likelihood of potential female underreports of victimization and to some extent reduce the probability of potential male underreports of perpetration.

Response Editing

Male Social Desirability. Although I hypothesized that male social desirability would be positively related to the male partner potentially underreporting perpetration, results revealed that male social desirability was positively related to possible male overreports of perpetration compared to couples who agreed about the absence of male-perpetrated violence. Though this relationship was marginally significant in both the bivariate and blocked multivariate analyses in Column 1 of Tables 3 to 4 (OR = 1.43, $p < .10$), it dropped to nonsignificance in the full model.

Female Social Desirability. Female social desirability was not expected to be related to male-perpetrated violence, but I found that higher female socially desirability the likelihood of potential male underreports of perpetration increased as shown in Column 3 of Tables 3 to 5 (bivariate OR = 1.71, $p < .05$; blocked OR = 1.72, $p < .05$; full OR = 1.54, $p < .10$).

Unemployment. Contrary to my hypotheses, male unemployment was negatively related to the male partner potentially underreporting perpetration compared to couples who agreed about the presence of male-perpetrated violence in Column 3 of Table 3 (OR = .22, $p < .05$). I also found that male unemployment was negatively related to the odds of the female partner potentially underreporting victimization compared to couples who agreed about the presence of male-perpetrated violence Column 4 of Tables 3 to 5 (bivariate OR = .14, $p < .05$; blocked OR = .13, $p < .05$; full OR = .13, $p < .10$). These findings provide evidence that male unemployment may somehow reduce the likelihood

for potential male and female underreports of male-perpetrated violence. Female unemployment, on the other hand, was not related to any of the reporting patterns for male-perpetrated violence. In addition, I tested for interaction effects between male and female unemployment in each of the models, but none were significant.

Relationship Commitment. As expected, higher male relationship commitment was related to the increased odds of potential male underreports of perpetration, as shown in Column 3 of Tables 3 to 4 (bivariate OR = 1.43, $p < .05$; blocked OR = 1.41, $p < .10$). I did not find that higher female relationship commitment significantly increased the odds of potential female underreports of victimization, although the odds ratio was in the hypothesized direction in Column 4 of Table 3 (bivariate OR = 1.34, ns). I also found that higher female relationship commitment reduced the odds of potential female overreports of victimization in Column 2 of Tables 3 to 4 (bivariate OR = .65, $p < .01$; blocked OR = .64, $p < .01$). In addition, I tested for interactions between male and female relationship commitment. I hypothesized that the positive effect of higher relationship commitment on underreporting would be stronger when one partner was much more committed than the other partner. I found a significant interaction between the effect of female and male relationship commitment on the likelihood of the female partner potentially underreporting victimization, but not in the hypothesized direction. That is, highly committed females were more likely to potentially underreport victimization when their partner was also highly committed (see Graph 5). This interaction was significant across all analyses (see Table 9).

Male Masculinity. My hypothesis that more male masculinity could increase the probability of potential male overreports of perpetration was not supported by the results

because male masculinity was not significantly related to the male partner potentially overreporting perpetration. There was, however, a marginally significant finding that I did not hypothesize. Male masculinity slightly reduced the odds of potential female underreports of victimization in Column 4 of Tables 3 to 4 (bivariate OR = .94, $p < .10$; blocked OR = .92, $p < .05$). Lack of Privacy. I did not find support for my hypothesis that a lack of privacy during their interview would increase potential underreporting of male-perpetrated violence by males and females. Instead, I found that female lack of privacy was related to the reduced odds of potential female overreports of victimization compared to couples who agreed about the absence of violence in Column 2 of Tables 3 and 5 (bivariate OR = .54, $p < .10$; full OR = .43, $p < .05$). In addition, female lack of privacy reduced the odds of potential male underreports of perpetration compared to couples who agreed about the presence of male-perpetrated violence in Column 3 of Table 3 (bivariate OR = .34, $p < .10$). Together these findings provide some evidence that the female's lack of privacy during her interview reduced the likelihood for potential female overreports and male underreports of male-perpetrated violence. The presence of a third person during the male interview was not significantly related to patterns of reporting male-perpetrated violence.

Female-Perpetrated Partner Violence

Encoding

Male Depressed Mood. As hypothesized, male depressed mood was positively related to the male partner potentially overreporting victimization. Specifically, higher male depressed mood increased the odds of potential male overreports of victimization by 12% compared to couples who agreed about the absence of female-perpetrated violence

across all models in Column 2 of Tables 6 to 8 (OR = 1.12, $p < .01$). In addition, male depressed mood was negatively related to the male partner potentially underreporting victimization. Higher male depressed mood reduced the odds of potential male underreports of victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Tables 6 to 8 (bivariate OR = .88, $p < .01$; blocked OR = .88, $p < .01$; full OR = .92, $p < .10$). Together these findings provide some evidence that male depressed mood may be a proxy for breakdowns in the encoding stage of the cognitive response process that are related to a greater possibility of potential male overreports and a lower probability of male underreports of victimization.

Female Depressed Mood. A very similar pattern of findings emerged for female depressed mood. As expected, higher female depressed mood was associated with an increase in the odds of potential female overreports of perpetration compared to couples who agreed about the absence of female-perpetrated violence in Column 1 of Tables 6 to 8 (bivariate OR = 1.08, $p < .001$; blocked OR = 1.08, $p < .001$; full OR = 1.07, $p < .05$). In addition, female depressed mood was related to the reduced odds of female potential underreports of female-perpetrated violence. For instance, higher female depressed mood reduced the odds of potential female underreports of perpetration in Column 3 of Tables 6 to 8 (bivariate OR = .90, $p < .01$; blocked OR = .91, $p < .05$; full OR = .90, $p < .05$). Contrary to the hypothesis that female depressed mood could be positively related to potential male underreports of victimization, instead female depressed mood and reduced the odds of male underreports of victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Table 6 (bivariate OR = .95, $p < .10$). These findings suggest that female depressed mood may serve as a proxy for errors

in the process of encoding memories that increase the likelihood of potential female overreports of perpetration. In addition, female depressed mood may reduce the likelihood of potential female underreports and to some extent male underreports of female-perpetrated violence.

Female Relationship Management. Although I hypothesized that female relationship management would be positively related to the male partner potentially underreporting perpetration because women's greater focus on the relationship may help them encode memories of violence more elaborately, this was not supported in the bivariate or multivariate findings for female-perpetrated violence.

Comprehension

Relationship Satisfaction. According to my hypotheses, higher male relationship satisfaction increased the risk of the male partner potentially underreporting victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Tables 6 to 7 (bivariate OR = 1.52, $p < .05$; blocked OR = 1.60, $p < .05$). Although female relationship satisfaction was not significantly related to potential female underreporting of perpetration, it was in the hypothesized direction in Column 3 of Table 6 (bivariate OR = 1.47, ns). With regard to female relationship satisfaction, higher female relationship satisfaction was related to a decrease in the odds of potential female overreports of perpetration compared to couples who agreed about the absence of female-perpetrated violence in Column 1 of Tables 6 to 8 (bivariate OR = .64, $p < .01$; blocked OR = .64, $p < .01$; full OR = .69, $p < .10$). Overall, these findings provide some evidence that relationship satisfaction may serve as a proxy for breakdowns in the comprehension stage of the cognitive response process. Specifically, higher male relationship satisfaction

may increase the likelihood of potential male underreports of victimization and higher female relationship satisfaction may decrease the likelihood of potential female overreports of perpetration. In addition, I tested for interactions between male and female relationship satisfaction, but none were significant.

Retrieval

Relationship Duration. I hypothesized that relationship duration would be positively related to disagreement of some kind, but I did not have a specific hypothesis for which type (i.e. male or female under or overreporting) would be most likely. I did find that relationship duration was related to male overreporting of victimization. Specifically, longer relationship duration was related to a modest increase in the odds of potential male overreports of victimization compared to couples who agreed about the absence of female-perpetrated violence in Column 2 of Tables 6 to 8 (bivariate OR = 1.11, $p < .10$; blocked OR = 1.12, $p < .10$; full OR = 1.12, $p < .10$). Further support for this relationship was found such that longer relationships were associated with a modest reduction in the odds of potential male underreports of victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Tables 6 to 8 (bivariate OR = .87, $p < .10$; blocked OR = .84, $p < .05$; full OR = .85, $p < .05$). These findings indicates that longer relationship duration may serve as a proxy for errors at the retrieval stage of the process respondents go through when answering survey questions such that the likelihood increases for potential male overreports and decreases for potential male underreports of female-perpetrated violence.

Substance Use. My hypotheses for male and female substance use were not supported. Contrary to expectations, male drug use was associated with an increased

likelihood of the male partner potentially overreporting victimization compared to couples who agreed about the absence of female-perpetrated violence in Column 2 of Tables 6 to 8 (bivariate OR = 1.99, $p < .05$; blocked OR = 2.73, $p < .01$; full OR = 2.35, $p < .05$). Additionally, male drug use reduced the odds of the male partner potentially underreporting victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Table 6 (bivariate OR = .52, $p < .10$). Male alcohol use was not related to any types of disagreement about female-perpetrated violence. Similarly, female drug use (see Column 3 of Table 6) and female alcohol use (see Column 3 of Tables 6 to 7) reduced the odds of female underreports of perpetration compared to couples who agreed about the presence of female-perpetrated violence (drug use: bivariate OR = .44, $p < .05$; and alcohol use: bivariate OR = .65, $p < .05$; blocked OR = .71, $p < .10$).Overall, male drug use may increase the likelihood of potential male overreports and reduce the likelihood of potential male underreports of victimization. Female substance use may decrease the likelihood of potential female underreports of perpetration.

Response Editing

Social Desirability. Contrary to my expectations, I found that male social desirability was negatively related to the odds of potential male underreports of victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Tables 6 to 8 (bivariate OR = .69, $p < .01$; blocked OR = .64, $p < .01$; full OR = .70, $p < .05$). Female social desirability was not significantly related to reporting patterns of female-perpetrated violence.

Male Unemployment. Although I hypothesized that male unemployment would be positively related to the odds of the male partner potentially underreporting victimization, the findings were in the opposite direction: male unemployment reduced the odds of potential male underreports of victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Tables 6 to 8 (bivariate OR = .17, $p < .001$; blocked OR = .20, $p < .001$; full OR = .21, $p < .01$). In addition I found that male unemployment reduced the odds of potential female overreports of perpetration compared to couples who agreed about the presence of female-perpetrated violence in Column 1 of Tables 6 to 8 (bivariate OR = .36, $p < .05$; blocked OR = .40, $p < .10$; full OR = .25, $p < .05$). In other words, male unemployment reduced the odds of potential male underreports and female overreports of female-perpetrated violence.

Female Unemployment. I hypothesized that female unemployment would be positively related to the odds of the female partner potentially underreporting perpetration and the odds ratio was in the hypothesized direction but was not statistically significant for example in Column 3 of Table 6 (bivariate OR = 1.45, ns). Female unemployment was not significantly related to any of the other comparisons for female-perpetrated violence. In addition, I tested for interactions between male and female unemployment on the likelihood of either partner underreporting female-perpetrated violence. I hypothesized that in a couple with an unbalanced employment status (i.e. where only one partner was unemployed); the person who was unemployed would be more likely to underreport violence. I found a significant interaction between the effect of female and male unemployment on the likelihood of the female partner potentially underreporting perpetration in the expected direction (see Graph 6). That is, unemployed females who

are coupled with employed males are more likely to potentially underreport perpetration than when their partner is also unemployed. This interaction was significant across all analyses (see upper portion of Table 10).

Relationship Commitment. In support of my hypothesis, the odds of the female partner potentially underreporting perpetration increased with higher female relationship commitment compared to couples who agreed about the presence of female-perpetrated violence in Column 3 of Tables 6 to 7 (bivariate OR = 1.53, $p < .10$; blocked OR = 1.57, $p < .10$). Additionally, the odds of the female partner potentially overreporting perpetration were reduced with higher female relationship commitment compared to couples who agreed about the presence of female-perpetrated violence in Column 1 of Tables 6 to 7 (bivariate OR = .72, $p < .01$; blocked OR = .72, $p < .05$). In other words, female relationship commitment may be a proxy for breakdowns in the response stage of the cognitive response process that are related to an increased risk for potential female underreporting and reduced risk for potential female overreporting of perpetration. Male relationship commitment was not significantly related to reporting patterns of female-perpetrated violence.

In addition, I tested for interactions between male and female relationship commitment on the likelihood of either partner underreporting female-perpetrated violence. I hypothesized that in a couple where one partner was more committed than the other, the more committed person would be more likely to underreport violence. I found a significant interaction between the effect of female and male relationship commitment on the likelihood of the female partner potentially underreporting perpetration, but not in the hypothesized direction (see Graph 7). Instead, I found that highly committed females

were more likely to potentially underreport perpetration when their partner was also highly committed. This interaction was only marginally significant in the bivariate analyses (see lower portion of Table 10).

Male Masculinity. Male masculinity was not significantly related to disagreement or agreement about female-perpetrated violence.

Lack of Privacy. I did not find support for my hypothesis that a lack of privacy during the respondent's interview would lead to more potential underreporting of female-perpetrated violence by males and females. Instead, I found that female lack of privacy reduced the odds of potential underreporting for males and reduced the odds of potential overreporting for females. Specifically, female lack of privacy reduced the likelihood of potential male underreports of victimization compared to couples who agreed about the presence of female-perpetrated violence in Column 4 of Tables 6 to 7 (bivariate OR = .42, $p < .01$; blocked OR = .44, $p < .10$).

Additionally, female lack of privacy reduced the odds of potential female overreports of perpetration compared to couples who agreed about the absence of female-perpetrated violence in Column 1 of Tables 6 to 8 (bivariate OR = .53, $p < .05$; blocked OR = .56, $p < .10$; full OR = .54, $p < .10$). The presence of a third person during the male interview was not significantly related to reporting patterns of female-perpetrated violence.

CHAPTER 5: DISCUSSION AND CONCLUSION

In the case of a shared experience, such as intimate partner violence, both partners should theoretically make the same report of violence. Research shows, however, that many couples disagree about violence in their relationship (Armstrong et al. 2002). Disagreement is an indication of measurement error in reports of violence: consequently, the prevalence or common predictors of partner violence may be unreliable or biased. The accuracy of data on partner violence is important for reconciling debates in the literature such as the different prevalence rates of intimate partner violence and for funding and policy decisions that affect the services provided to couples experiencing partner violence. As such, the purpose of my study was to answer three research questions. First, how much disagreement is there between partners and what effect does this have on the prevalence of reported violence found in this sample? Second, do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used? Third, how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence?

Disagreement and the Prevalence of Partner Violence

With regard to the first research question, the results from my study suggested that disagreement in partner's reports of intimate partner violence does exist and it has an effect on the prevalence of reported violence found in this sample. Disagreement ranged from 12% for male-perpetrated violence to 21% for female-perpetrated violence. Consistent with previous research (Perry and Fromuth 2005) there was more disagreement about female than male-perpetrated violence, which may be due to the lack

of clarity in societal definitions of female-perpetrated violence. That is, most research in this area has focused on male violence and thus less is known about the causes of female violence. Consequently, there are fewer theories that explain women's use of violence and how it is similar or unique from men's violence. In addition, it is possible that what is considered violent for women is more ambiguous than for men.

As a result of disagreement, the prevalence of IPV in this sample fluctuated depending on the report that was used. For example, females reported experiencing more victimization than males reported perpetrating (11% vs. 7%, respectively). When combining female and male reports into a couple report where either of the partners reported *male-perpetrated violence*, 15% of the couples were identified as violent. The prevalence of *female-perpetrated violence* also varied by the report that was used: females reported perpetrating more violence than their male partners reported experiencing (22% vs. 17%, respectively). Using the combined couple report, 30% of the sample had at least one partner report female-perpetrated violence.

Consistent with some previous literature on IPV using national samples (Anderson 2002; Shafer et al. 2002; Straus and Gelles 1990; Szinovacz and Egley 1995), my results revealed that female-perpetrated violence was reported more often than male-perpetrated violence. In fact, I found that female violence was reported twice as often as male violence when using the couple reports (30% vs. 15%, respectively). Other studies using a national sample of couples have found lower rates of violence and less disagreement between male and female-perpetrated violence. For example, in a nationally representative sample of 1,635 married or cohabitating couples, Shafer et al. (2002) found that female-perpetrated violence was more common than male-perpetrated

violence when using either partner's report of violence (18.2% versus 13.6%, respectively). One possible explanation for the higher prevalence of violence in my study is that IPV tends to decrease with age (Caetano et al. 2008; Rennison and Welchans 2000) and the Add Health respondents in my sample were mostly young adults with a median age of 22 for females and 23 for males, whereas the couples in Shafer et al.'s study were older adults with a median age of 42 and 45 for females and males, respectively. According to the crosstabs of the male and female reports of violence, there was more disagreement in the male and female reports regarding female-perpetrated violence than male-perpetrated violence. Most of the disagreement for both male and female-perpetrated violence occurred when one partner did not report violence but the other partner reported a low frequency of violence. The low frequency of violence suggests that these couples are not habitually violent such as those that report much higher frequencies of violence. Instead, disagreement over one or two reported incidences of violence may be occurring more often for female-perpetrated violence because couples' understanding of female violence is less defined. More disagreement where one partner reports violence but the other partner does not will inflate estimates of the prevalence of female-perpetrated violence when using a couple level report that represents either partner's report of violence. Therefore, more disagreement about female than male-perpetrated violence may explain why female-perpetrated violence was reported twice as often by at least one partner in my sample of couples. Based on the prevalence of reported violence identified in my study, females were more likely to report both perpetration and victimization compared to their male partners. We do not know, however, if these differences were due to her overreporting or his underreporting because

it is not possible to validate either report. For example, she could be overreporting perpetration if she reported behaviors such as playful slaps that he did not report as violence. Alternatively, he could be underreporting victimization if he is too embarrassed to admit that his partner hit him. Although previous findings on the prevalence of different disagreement patterns are mixed, some research has found a similar pattern of higher female reports for both perpetration and victimization (Schafer et al. 1998). My results followed a social desirability pattern for male-perpetrated violence but not female-perpetrated violence. Consistent with a social desirability pattern, previous studies have found that men underreport their perpetration of violence compared to their partner's reports (Perry and Fromuth 2005). Alternatively, female violence may not be as susceptible to social desirability effects because there is less social stigma associated with female-perpetrated violence (Caetano et al. 2002).

Predictors of Partner Violence

With regard to the second research question [do significant predictors of partner violence vary depending on which violence estimates (one-partner vs. couple) are used?] many of the common predictors of IPV were affected by disagreement in reports of violence, but a few were consistent across different reports of IPV. For example, female depression was a consistent predictor of female-perpetrated violence whereas relationship duration was a consistent predictor of IPV across male, female, and couple reports of violence, which means that these two predictors were robust to the effects of measurement error in reports of violence. Higher levels of female depression significantly predicted female-perpetrated (but not male-perpetrated) violence across all reports. In

addition, couples in longer lasting relationships were more likely to experience IPV regardless of the report that was used. Despite these two consistent findings, there were eight inconsistent predictors of male-perpetrated violence and ten inconsistent predictors of female-perpetrated violence, indicating that these variables were affected by disagreement. The predictors of *male-perpetrated violence* affected by disagreement included: relationship status, male and female relationship satisfaction, male drug use, male and female depression, and female childhood abuse. For *female-perpetrated violence*, the affected predictors included: relationship status, male and female drug use, male depression, male education, male and female unemployment, female relationship satisfaction, female childhood sexual abuse, and female alcohol use.

In comparing my findings to previous studies using a similar analysis, some of the predictors affected by measurement error were similar while numerous others were different. In terms of similarity, Schafer et al. (2002) for example also found that male education and female alcohol use were inconsistent predictors of female-perpetrated violence. In terms of difference, although Schafer and colleagues (2002) found that female childhood physical abuse was a consistent predictor of male-perpetrated violence, I found it to be inconsistent in my study. Further examples of differences come from the study by Szinovacz and Egley (1995) such that they identified male education as an inconsistent predictor of male-perpetrated violence and a nonsignificant predictor of female violence, which is contrary to what I found. They also found racial differences across reports of male and female-perpetrated violence, whereas I found no such differences in my study. It is difficult to make conclusions about the specific effects of measurement error across studies because this type of error depends on the way variables

were measured and collected in each study. What is clear, however, is that measurement error in reports of violence can have an effect on common predictors of IPV.

The consequence of measurement error in reports of violence is that conclusions drawn about the significant predictors of IPV change depending on the report that is used. For instance, some predictors were only significant when using the female report, male report, or couple report. More significant relationships were identified when using the couple report followed by the female report and then the male report. These results suggest that different predictors of IPV may be identified when using couple versus individual level data. Consequently, when comparing the results of previous studies it is difficult to identify whether significant or nonsignificant findings are true representations or a product of measurement error. Consistent findings suggest that these effects are robust to measurement error, but inconsistencies across studies are particularly challenging to disentangle.

Most previous research has assumed that disagreement is a result of underreporting perpetration because of a social desirability bias. Consequently, the couple report is considered more accurate because it captures violence even when one of the partners fails to report. If disagreement is due to overreporting (e.g., because one partner perceived behaviors to be violent when the other partner did not), then the couple report could also be an overreport of violence. The regression results do not support a theory of social desirability as the mechanism behind disagreement for either type of IPV. If social desirability were the main reason behind the disagreement in my study then there should be a consistent pattern of significant versus nonsignificant findings for both of the perpetrator's reports compared to both of the victim's reports, but this does not appear to

be the case. Instead the pattern of relationships is more dependent on the gender of the reporter. For example, male characteristics (i.e. *male* depressed mood) more often predicted male reports of violence rather than the female partner's report of violence. Specifically, male depression was significantly related to the male report of perpetration and victimization, but not the female reports of violence. This supports researchers who argue that self reports are more accurate than proxy reports because people have a more accurate perception about their own characteristics and experiences than others (O'Muircheartaigh 1991).

Cognitive Response Process and Disagreement about Violence

In terms of my third research question (how do proxies for breakdowns in the cognitive response process explain disagreement in male and female reports of violence?) I found some evidence that breakdowns in this process were positively related to disagreement in reports of IPV. At the encoding stage, depressed mood was a proxy for breakdowns or differences in how men and women encode memories that was significantly related to disagreement. I had two competing hypotheses for how depression would affect disagreement. I theorized that depression would lead to more elaborate encoding of memories such that the depressed partner would report violence when their partner did not, but I hypothesized that this pattern could either be a result of the depressed partner's overreport or their partner's underreport. If the depressed partner overreports violence then this is an indication that more elaborate encoding may produce errors in their report of violence. Alternatively, if depressed mood is related to their partner's potential underreports then the elaborate encoding may result in the depressed

partner's report being more accurate. I only found support for the hypothesis that depressed mood affects encoding in such a way that leads to the depressed partner overreporting violence. Across all models I consistently found that higher depressed mood for males and females was associated with a greater likelihood of potential overreports of both male-perpetrated and female-perpetrated violence. This means that depressed people could perceive and store memories of situations more negatively than their partners and then report violence when their partner does not in a survey context.

At the comprehension stage, I had hypothesized that different perceptions of the relationship may be the cause of differential comprehension of the violence questions that could lead to disagreement in reports. I used relationship satisfaction as a proxy for each partner's subjective perception of the relationship and an interaction between male and female relationship satisfaction to capture differential perceptions. I did not find that differential perceptions of relationship satisfaction predicted disagreement because the interactions were not significant. Higher relationship satisfaction, however, was related to underreporting victimization for both males and females. One possible explanation is that people who are more satisfied with their relationship do not perceive the same physical behaviors as violent compared to their partners so they do not report them as such. It is also possible that relationship satisfaction could be a proxy for the response stage of the cognitive response process if more satisfied partners are deliberately underreporting victimization.

At the retrieval stage, I hypothesized that breakdowns in a respondent's ability to recall physical violence would cause disagreement between the male and female reports of violence. Relationship duration served as a proxy for errors in retrieval that were

related to the timing or temporal placement of an event in memory. I found that males were more likely to overreport their perpetration and victimization when in a relationship of longer duration. This finding does not support the theory that couples who have been together longer would underreport violence because it is difficult to recall events over a longer reference period. In terms of telescoping errors, these findings suggest that forward telescoping where events that happened prior to the reference period are included is more likely than backward telescoping where events in the reference period are forgotten. Add Health respondents who were in a relationship longer than one year were asked to report on violence in the past year, which provides an opportunity for forward telescoping where respondents include events that happened prior to the past year. My finding that longer relationships were positively related to potential male overreporting of perpetration and victimization suggests that males may be more susceptible to including violent events that happened beyond the previous year of their relationship when answering questions on physical violence than their female partners. I worked to reduce the effects of telescoping when I dichotomized the violence question because I expanded the reference period for my variable beyond the past year by including respondent's reports of violence that had occurred at some point before the previous year, but it is possible that some respondents missed this extra response option.

In addition, I hypothesized that alcohol and drug use would proxy for errors in the retrieval process that were related to loss of memory and as a result would lead to underreporting of violence. Contrary to my expectations, male and female substance use was often negatively related to underreporting perpetration and victimization. Additionally, male drug use was positively related to the male partner overreporting

victimization. Perhaps drug use could have altered some men's perceptions of interactions with their partner that led them to perceive and recall violence that their partner did not report. A limitation related to the substance use measures is that they are not specific to acts of physical violence; therefore, we do not know if substance use occurred at the same time as partner violence. As a result, the effect of substance use on memories related to partner violence may not be direct. Previous research has found that higher female PCP use increased disagreement about female-perpetrated violence (Medina et al. 2004); however, they did not test the specific direction of disagreement (i.e. over or underreporting) which makes it difficult to discern whether my findings support or contradict their findings.

At the response stage, I hypothesized that respondents may deliberately edit their answers for a variety of reasons. As expected, I found that men and women who were more committed to their relationship were more likely to underreport perpetration. It is likely that people who are more invested in their relationship may have more to lose if it were to end; therefore, they underreport perpetration for fear of it jeopardizing the stability of their relationship. I hypothesized that when one partner was more invested than the other, the more committed partner would be more likely to underreport violence. The significant interaction effects, however, suggested that highly committed females were more likely to underreport perpetration and victimization when their partner was also highly committed. If partners feel they have more to lose in a relationship where both partners are highly committed then it is plausible that this situation may increase deliberate underreporting. I also found a significant interaction effect for male and female unemployment predicting the female partner underreporting perpetration. I hypothesized

that in a relationship with unbalanced economic resources, the person with fewer resources would be more likely to underreport violence because they are more dependent on the relationship. Consistent with my hypothesis, unemployed females with an employed partner were at an increased risk for underreporting perpetration. Couples where both partners were unemployed had the lowest risk for the female underreporting perpetration.

An unexpected finding occurred for social desirability predicting disagreement about male-perpetrated violence. Instead of male social desirability leading to underreports of perpetration, it actually increased the likelihood of their overreporting perpetration. This finding contradicts previous theoretical explanations that men are more likely to underreport perpetration because of a social desirability bias (Berns 2001; Goodrum et al. 2001; Heckert and Gondolf 2000; Perry and Fromuth 2005). Also unexpectedly, female social desirability was related to the male partner underreporting perpetration. Due to limitations in the Add Health data, it is possible that the measure I used may have been tapping something other than social desirability. That is, the question I used to measure social desirability asked respondents whether they agree or disagree that their behavior often depends on how they think other people want them to behave. This question was asked in the section on depression and self-esteem and may be measuring some of these aspects as well. If this is the case then it might explain why male social desirability was positively related to the male partner overreporting perpetration because this was also found for male depression.

Strengths and Limitations to the Current Study

My study makes several contributions to the partner violence and methodological literatures. To my knowledge research on partner violence and survey methodological approaches to measurement error have not been explicitly combined. As such, my study adds to the existing literature by applying proxies for breakdowns in the cognitive response process used in the survey methodology literature to the study of IPV to explain why romantic partners disagree about relationship violence. In addition, I created proxies for breakdowns in the cognitive response process in the context of secondary data, which has rarely been done. Most sociological surveys use observational data to understand phenomena such as IPV, therefore it is important to measure, understand, and account for measurement error in this context. I utilize a large, national sample of couples that to my knowledge has not previously been used to examine disagreement about partner violence. This sample is unique because it focuses on young adulthood, which is a life stage particularly susceptible to partner violence. My study also goes beyond simple descriptive statistics of disagreement by measuring the effect that disagreement has on common predictors of IPV.

Notwithstanding the strengths, there are some limitations to the generalizability of this study. For instance, the effect of disagreement is likely to change depending on the question used to measure violence. The Add health data combined three physical behaviors (i.e. hitting, slapping, kicking) into one question. Because these same items are asked as separate questions in the Revised Conflict Tactics Scales (CTS2; Straus et al. 1996), the specific variables found to be affected by disagreement in my study may not be directly comparable to other studies of IPV that have used the CTS2. I also used a

young adult sample that may have different disagreement patterns than other samples of older or younger couples and as such, my results may not be directly comparable to these studies. In addition, previous research has shown that disagreement varies by the type of sampling that is used. For example, nationally representative probability samples, such as Add Health, tend to have lower rates of disagreement than community or clinical samples where couples have already been identified as violent or at risk for violence (e.g. a domestic violence shelter sample). The types of violence couples identified in these different samples might also be different (Johnson 2006); therefore, the findings from my study may be most akin to other studies using a similar sampling strategy.

Although my study is unique because it used observational data to test the cognitive response process, it is also limited because I had to use indirect proxies for breakdowns or aspects of the cognitive process. Proxies are typically not as reliable as direct measures because they may be measuring other unrelated dimensions and consequently reduce the ability to find significant relationships or rule out other alternative explanations for findings. The Add Health data was not designed to test the cognitive response process and as a result finding proxies for some stages was difficult. For instance, I could not find proxies for the judgment stage because this is a process where respondents evaluate and perhaps estimate or expand on the information they retrieved from memory and with these data, it is impossible to know what respondents remembered or how they judged this information. Also, the judgment stage was not expected to differ for men and women, thus, it was unnecessary to find variables that may differentially affect the judgment process. In addition, errors in one stage of the cognitive response process are likely to affect errors at another stage. Although I grouped proxies

into the stages of the CRP that I thought they would have the greatest affect on, it is possible that these proxies influenced other stages. For instance, errors in how memories are encoded will likely affect how those memories are retrieved later on.

Sample size was another limitation. Although almost 1,300 couples is a large sample, it was divided into different categories of disagreement and agreement about IPV. Because IPV is considered a rare event where the majority of respondents did not report violence, the cell sizes for reports of violence became very small. For example, only 40 couples had both partners report male-perpetrated violence. As a result, the power to detect significant differences was reduced. As such, some of the nonsignificant findings may be a result of reduced analytic power instead of a true absence of an effect. In addition, the small sample size sometimes resulted in changes to the analyses. For example, for the second research question I had originally proposed to look at couple reports where both partners reported violence in addition to a couple report where either partner reported violence and the individual male and female reports. As a result of the small number of couples who both reported violence, the sample size for this analysis was considerably smaller than the other three reports. Consequently, it would be difficult to determine if changes in significant predictors across these four different reports were due to real changes or reduced analytic power in the analysis predicting both partners' reports of violence. Consequently, I decided to drop the fourth analysis and compare across the male, female, and either partner reports where the sample size was identical. Couple level analyses that focus on predictors or outcomes of IPV generally use the couple report where either partner reported violence so my analyses were consistent with

previous literature (Caetano et al. 2008; DeMaris et al. 2003; O'Leary, Slep, and O'Leary 2007).

Future Research

There is need for future research in the area of measurement error in reports of violence. My study focused on physical violence, but future research could investigate how measurement error affects predictors of different types of violence (i.e. sexual, psychological). Likewise, within these diverse types of violence there may be differences in how respondents go through the cognitive response process and this may affect patterns of disagreement. Additionally, although I was unable to determine if the reports of injury in this sample were direct consequences of the violent behaviors asked about, future research may want to include reports of injury as a way of determining the severity of violence. Disagreement could be investigated across the spectrum of severity or by comparing moderate to severe violence to determine if the cognitive response process differentially affects reports of violence depending on the severity.

Although it may complicate things considerably, future research could examine disagreement in the frequency of violence instead of dichotomizing violence into the presence or absence of it. Some errors in the cognitive response process may affect disagreement in reports of the frequency of violence that is not captured when violence is dichotomized. For instance, retrieval errors may cause one partner to forget more incidents of physical violence than their partner even though they both report that some violence has occurred. The benefit of this strategy is that more errors in the cognitive response process could be identified. As a result, the relationship between proxies for

errors in the cognitive response process and disagreement about violence could change. The benefit to researchers studying IPV may be less direct because they usually dichotomize violence instead of studying the frequency of violence.

In addition, future studies could use the same method of creating proxies for errors in the cognitive response process using observational data and apply it to other topics susceptible to reporting errors. For instance, other sensitive topics such as the number of sexual partners, abortion, and illicit drug use have also been shown to be affected by reporting errors (Tourangeau and Smith 1996). Breakdowns in the cognitive response process may also be helpful for explaining reporting errors on these topics. Future studies examining proxies for errors in the cognitive response process in observational data would be a beneficial contribution to the survey methodology literature because this has rarely been done. In addition, this research would provide a better understanding of reporting errors on these substantive topics.

Finally, my study focused on unidirectional violence, but it is possible that some of these couples experienced bidirectional violence where both partners are perpetrators and victims. Recent research reports that the predictors of unidirectional versus bidirectional violence may be different (Melander, Noel, and Tyler Forthcoming). Disagreement about these types of violence may also be different and worth investigating.

Conclusions/Implications

In conclusion, my study investigated the occurrence of disagreement and the effect it has on the prevalence of IPV, how predictors of IPV vary depending on the

report of violence that is used, and how proxies for breakdowns in cognitive response process explains disagreement in reports of IPV. My study is unique because it used observational data from a national sample of young adults that has not been previously used to study IPV or the cognitive response process. The findings of my study have important implications for theories of IPV, people who provide services to those affected by IPV, and researchers interested in IPV and the cognitive response process.

Implications for Theories of IPV and the Gender Debate

There is a debate in the literature on IPV about whether men or women are more violent because some previous research has found men are more violent (Dobash, Dobash, Cavanaugh, and Lewis 2000), while others have found women are slightly more violent (Straus and Gelles 1990). The feminist perspective has been used to understand male perpetration, especially in the context of severe violence that comes to the attention of service providers such as domestic violence shelters. Alternatively, the family violence perspective has been used to study both male and female-perpetrated violence more often in the context of the general population. Johnson's work (1995, 2006) suggests that the real issue behind the gender debate is that there are several types of IPV with varying levels that are differentially found in clinical, community, and national samples. For example, clinical (i.e., domestic violence shelter) samples may be more likely to include couples who experience a type of violence where men are primarily the perpetrators and their violence is severe, escalating, and is characterized by a pattern of controlling behaviors. On the other hand, national probability samples may be more likely to identify couples who experience a different type of violence where men and women are both

likely to be perpetrators, but their violence is not as severe, escalating, or controlling compared to clinical samples.

My study was not designed to test Johnson's typology of IPV, but according to his work it is not surprising that I found higher rates of female-perpetrated violence because I used a national sample of young adults. Also, consistent with previous literature (Anderson et al. 2002), I found more disagreement about female-perpetrated violence. These findings have important implications for theories of IPV. The findings from my study and others show that female perpetration does occur and the feminist perspective is unable to explain this phenomenon. Although the family violence perspective shows that females can be violent towards their partners, it still does not explain female perpetration. The higher prevalence and disagreement regarding female perpetration found in my study suggests that we need to glean a better understanding of female-perpetrated violence. By using the exact same instruments to measure both male and female violence we are assuming that they operate in the same way, which may not be the case. Some previous research, for instance, suggests that male and female violence occurs for different reasons (O'Keefe and Treister 1998), occurs in different social contexts (Swan and Snow 2006), and has different consequences for victims (Felson and Cares 2005). Female perpetration may need to be studied in its own right in order to build stronger theoretical explanations for this type of violence.

Implications for Service Providers

The findings from my study also have important implications for service providers who work more directly with couples experiencing IPV. The prevalence of violence is an important estimate used in funding decisions and my study shows that it

can change depending on the report of violence. For example, I found that the prevalence of male-perpetrated violence ranges from 3% to 15% depending on whether the male report, female report, couple report where both partners report violence, or the couple report where either partner reports violence is used. Likewise, the prevalence of female-perpetrated violence varies from 9% to 30%. The variation across these reports can change the perception about how serious IPV really is based on the magnitude of the problem. For example, for female-perpetrated violence the difference is almost one third of this sample of young adult couples experience IPV versus less than ten percent. The problem is that we do not know which estimate is most accurate. Depending on which estimate is used, it could overinflate or under represent the problem. Different interest groups may pick and choose which estimates they use depending on the agenda they are supporting. We also need to know if the services currently offered to couples involved in IPV are appropriate for female perpetrators and male victims. Most of the services are designed to address male-perpetrated violence. If the context of female-perpetrated violence is different in terms of motivation for the violence and consequences of the violence, then the same services may not be applicable to female-perpetrated violence.

Implications for Researchers

My findings have important implications for researchers studying partner violence because my results show that disagreement occurs in reports of violence and as a result conclusions about the prevalence and common predictors of IPV can change depending on which report is used. The use of proxy reports in one-partner data is common because it is easier and less expensive, but disagreement in reports of violence suggests that proxy reports may not be adequate for research on IPV. If both partners agreed and made the

same report then it would not matter which person was interviewed, but if their reports differ, then results extrapolated to the couple based on one partner's report may be less accurate. My results from the regression analyses predicting IPV and disagreement showed a pattern that male characteristics were better predictors of male reports of violence and female characteristics were better predictors of female reports of violence. These findings suggest that proxy reports may not be adequate for conclusions about partner violence drawn at the couple level because the conclusions are driven by the experiences of the partner who was surveyed and may not represent the other partner.

The degree of imprecision or inaccuracy introduced into estimates of IPV because of measurement error in reports of violence depends on whether the error is random or systematic. Random error would increase variances and attenuate coefficients making it more difficult to identify significant relationships. Alternatively, systematic error would bias coefficients in a certain direction and result in inaccurate conclusions. Both random and systematic error is possible at each stage of the cognitive response process; however, random error may be more likely to occur because of errors in the encoding, comprehension, retrieval, and judgment stages of the cognitive response process, whereas systematic error may be more likely in the response stage. For example, memory issues at the retrieval stage can create error in reports of violence but it will be random because some people may forget events, while other people may telescope and include events not in the reference period. On the other hand, if perpetrators purposefully do not report violence at the response stage because they do not want to admit to a socially undesirable behavior then this would be systematic because all perpetrators are expected to make the same error in this same way. According to results analyzing breakdowns in the cognitive

response process, measurement error in reports of violence may be a result of both random and systematic error. I found that errors in each stage of the cognitive response process increased patterns of disagreement; therefore, it does not appear that problems at one stage dominate the explanation for measurement error in reports of violence. The extent to which these errors are random or systematic will determine the effect they have on results, but without repeated random sampling it is impossible to know for certain if errors are random or systematic.

The fact that disagreement occurs and can affect covariates of violence attests to the usefulness of couple data because disagreement can be detected and incorporated into the estimates of violence, especially if disagreement is a result of underreporting. If disagreement is due to overreporting then couple data does not necessarily provide more accurate estimates. Most researchers studying IPV believe that underreporting is more likely than overreporting because of its sensitive and socially undesirable nature (Szinovacz and Egley 1995). My study, however, shows that reporting errors due to breakdowns in the cognitive response process can result in both underreporting and overreporting of IPV. My findings expand explanations for disagreement beyond social desirability.

If we know that certain characteristics of the couple are related to a breakdown in the CRP that creates measurement error in reports of violence then survey methodologists and partner violence researchers may be able to find a way to reduce those errors. To reduce errors at the comprehension stage further pre-testing through cognitive interviews or focus groups could be done before data collection to determine how men and women may be defining and reporting physical behaviors differently. For example, if women are

more likely to report any incident of slapping their partner, but men only report this same behavior when it hurts, then this could explain why female reports of perpetration are higher than male reports of victimization. To reduce errors at the retrieval stage, calendar or diary methods could be employed to help respondents recall events more accurately. For example, Fals-Stewart et al. (2003) studied men entering a spousal violence treatment center and had their female partners keep a weekly record of days when violence occurred and found improvements in partner agreement about the occurrence of violence compared to when they did not use the weekly diary. There may also be a way to reduce the effect of response editing errors in our analyses if we know the characteristics that are associated with under or overreporting. For example, if we know which characteristics are associated with certain types of disagreement then it could be possible to create weights that adjust for people's likelihood of underreporting or overreporting. Logistic regression models could be created that predict the propensity for different types of disagreement (i.e. female underreporting perpetration) and these propensities could be used as controls in analyses predicting IPV.

In summary, my study found that disagreement about relationship violence is substantial and does have an effect on the prevalence of violence and conclusions about some common predictors of IPV. This means that previous findings using proxy data (i.e. one-partner data) may not adequately represent the couple and may be different from those studies that use couple data. In addition, some patterns of overreporting and underreporting IPV may be a result of breakdowns in the cognitive response process. Several suggestions were given on how to reduce these errors. Future research should continue to elaborate on the consequences of and the mechanisms behind disagreement

about IPV so that we can more fully understand this social problem in order to provide more accurate estimates of IPV and more effective interventions and preventative measures in the future.

REFERENCES

Add Health Codebooks. 2008. "Section 19: Relationships in Detail Wave III." Retrieved February 11, 2008 (http://www.cpc.unc.edu/projects/addhealth/codebooks/wave3).

Add Health Website. 2009. "Diagram of Add Health Study Design." Retrieved February 10, 2009 (http://www.cpc.unc.edu/projects/addhealth).

Anderson, John R. 1983. *The Architecture of Cognition*. Cambridge, MA: Harvard University Press.

Anderson, Kristin L. 1997. "Gender, Status, and Domestic Violence: An Integration of Feminist and Family Violence Approaches." *Journal of Marriage and the Family* 59:655-669.

Anderson, Kristin L. 2002. "Perpetrator or Victim? Relationships Between Intimate Partner Violence and Well-Being." *Journal of Marriage and Family* 64:851-863.

Anderson, Kristin L. and Debra Umberson. 2001. "Gendering Violence: Masculinity and Power in Men's Accounts of Domestic Violence." *Gender & Society* 15:358-380.

Archer, John and Natasha Ray. 1989. "Dating Violence in the United Kingdom: A Preliminary Study." *Aggressive Behavior* 15:337-343.

Archer, John. 2000. "Sex Differences in Aggression between Heterosexual Partners: A Meta-Analytic Review." *Psychological Bulletin* 126:651-680.

Armstrong, Tisha G., Gretchen Heideman, Keven J. Corcoran, Bonnie Fisher, Krista L. Medina, and John Schafer. 2001. "Disagreement about the Occurrence of Male-

To-Female Intimate Partner Violence: A Qualitative Study." *Family & Community Health* 24:55-75.

Armstrong, Tisha G., Julia Y. Wernke, Krista L. Medina, and John Schafer. 2002. "Do Partners Agree About the Occurrence of Intimate Partner Violence? A Review of the Current Literature." *Trauma Violence Abuse* 3:181-93.

Bancroft, Lundy. 2002. *Why Does He Do That?: Inside the Minds of Angry and Controlling Men*. New York: Putnam's Sons.

Belson, William A. 1981. *The Design and Understanding of Survey Questions*. Aldershot, U.K.: Gower.

Berns, Nancy. 2001. "Degendering the Problem and Gendering the Blame: Political Discourse on Women and Violence." *Gender & Society* 15:262-281.

Beyers, Julie M., Jean M. Leonard, Virginia K. Mays, and Lee A. Rosen. 2000. "Gender Differences in the Perception of Courtship Abuse." *Journal of Interpersonal Violence* 15:451-466.

Blair, Edward and Scot Burton. 1987. "Cognitive Processes Used by Survey Respondents to Answer Behavioral Frequency Questions." *The Journal of Consumer Research* 14:280-288.

Bradburn, Norman M., Lance J. Rips, and Steven K. Shevell. 1987. "Answering Autobiographical Questions: The Impact of Memory and Inference on Surveys." *Science* 236:157-161.

Brown, Norman R. and Robert C. Sinclair. 1999. "Estimating the Number of Lifetime Sexual Partners: Men and Women Do It Differently." *Journal of Sex Research* 36:292-297.

Brown, Susan L. and Jennifer R. Bulanda. 2008. "Relationship Violence in Young Adulthood: A Comparison of Daters, Cohabitors, and Marrieds." *Social Science Research* 37:73–87.

Burke, Leslie K., and Diane R. Follingstad. 1999. "Violence in Lesbian and Gay Relationships: Theory, Prevalence, and Correlational Factors." *Clinical Psychology Review* 19:487-512.

Caetano, Raul, John Schafer, Craig Field, and Scott M. Nelson. 2002. "Agreements on Reports of Intimate Partner Violence among White, Black and Hispanic Couples in the United States." *Journal of Interpersonal Violence* 17:1308-1322.

Caetano, Raul, Patrice Vaeth, and Suhasini Ramisetty-Mikler. 2008. "Intimate Partner Violence Victim and Perpetrator Characteristics among Couples in the United States." *Journal of Family Violence* 23:507-518.

Capaldi, Deborah M. and Lee D. Owen. 2001. "Physical Aggression in a Community Sample of At-Risk Young Couples: Gender Comparisons for High Frequency, Injury, and Fear." *Journal of Family Psychology* 15:425-440.

Catalano, Shannan. 2007. "Intimate Partner Violence in the United States." Washington DC: Department of Justice. Retrieved September 1, 2009 (http://www.ojp.usdoj.gov/bjs/pub/pdf/ipvus.pdf).

Chantala, Kim. 2006. "Guidelines for Analyzing Add Health Data." Retrieved February 10, 2009 (http://www.cpc.unc.edu/projects/addhealth/data/using/guides).

Cook, Cynthia A. and Richard J. Harris. 1995. "Attributions about Spouse Abuse in Cases of Bidirectional Battering." *Violence and Victims* 10:143-151.

Craven, Diane. 1997. “Sex Differences in Violent Victimization 1994.” (Bureau of Justice Statistics Special Report No. NCJ 164508). Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Crowne, Douglas P. and David Marlowe. 1964. *The Approval Motive*. New York: Wiley.

DeKeseredy, Walter S., and Martin D. Schwartz. 1998. “Measuring the Extent of Woman Abuse in Intimate Heterosexual Relationships: A Critique of the Conflict Tactics Scales.” VAWnet National Online Resource Center on Violence Against Women. Retrieved September 2009 (http://new.vawnet.org/Assoc_Files_VAWnet/AR_ctscrit.pdf).

Delsol, Catherine and Gayla Margolin. 2004. “The Role of Family-Of-Origin Violence in Men's Marital Violence Perpetration.” *Clinical Psychology Review* 24:99-122.

DeMaio, Theresa J. 1984. "Social Desirability and Survey Measurement: A Review." Pp. 257-281 in *Surveying Subjective Phenomena*, edited by C. Turner and E. Martin. New York: Russell Sage Foundation.

DeMaris, Alfred, Michael L. Benson, Greer L. Fox, Terrence Hill, and Judy Van Wyk. 2003. "Distal and Proximal Factors in Domestic Violence: A Test of an Integrated Model." *Journal of Marriage and Family* 65(3): 652–667.

Dilillo, David, Dawn Giuffre, George C. Tremblay, and Lizette Peterson. 2001. “A Closer Look at the Nature of Intimate Partner Violence Reported by Women with a History of Child Sexual Abuse.” *Journal of Interpersonal Violence* 16:116-132.

Dobash, Rebecca E. and Russell P. Dobash. 1998. “Violent Men and Violent Contexts.” Pp. 141-168 in *Rethinking Violence against Women*, vol. 9, edited by R. E. Dobash and R. P. Dobash. Thousand Oaks, CA: Sage.

Dobash, Rebecca E., Russell P. Dobash, Dr. Kate Cavanagh, and Dr. Ruth Lewis. 2000. *Changing Violent Men*. 1st ed. Sage Publications, Inc.

Dobash, Russell P., Rebecca E. Dobash, Margo Wilson, and Martin Daly. 1992. "The Myth of Sexual Symmetry in Marital Violence." *Social Problems* 39:71-91.

Drapkin, Michelle L., Barbara S. McCrady, Janine M. Swingle, and Elizabeth E. Epstein. 2005. "Exploring Bidirectional Couple Violence in a Clinical Sample of Female Alcoholics." *Journal of Studies on Alcohol* 66:213-219.

Eisenhower, Donna, Nancy A. Mathiowetz, and David Morganstein. 1991. "Recall Error: Sources and Bias Reduction Techniques." Pp. 127-144 in *Measurement Errors in Surveys*, edited by P. P. Biemer, R. M. Groves, L. E. Lyberg, N. A. Mathiowetz, and S. Sudman. New York: John Wiley& Sons.

Fals-Stewart, William, Gary R. Birchler, and Michelle L. Kelley. 2003. "The Timeline Followback Spousal Violence Interview to Assess Physical Aggression Between Intimate Partners: Reliability and Validity." *Journal of Family Violence* 18:131-142.

Felson, Richard B. and Alison C. Cares. 2005. "Gender and the Seriousness of Assaults on Intimate Partners and Other Victims." *Journal of Marriage and Family* 67:1182-1195.

Field, Craig A. and Raul Caetano. 2005. "Longitudinal Model Predicting Mutual Partner Violence among White, Black, and Couples in the United States General Population." *Violence and Victims* 20:499-511.

Foran, Heather M. and K. Daniel O'Leary. 2008. "Problem Drinking, Jealousy, and Anger Control: Variables Predicting Physical Aggression Against a Partner."

Journal of Family Violence 23:141-148.

Foshee, Vangie A., Thad S. Benefield, Susan T. Ennett, Karl E. Bauman, and Chirayath Suchindran. 2004. "Longitudinal Predictors of Serious Physical and Sexual Dating Violence Victimization during Adolescence." *Preventative Medicine* 39:1007-1016.

Frias, Sonia M. and Ronald J. Angel. 2005. "The Risk of Partner Violence among Low-Income Hispanic Subgroups." *Journal of Marriage and Family* 67:552-564.

Gaertner, Lowell and Vangie Foshee. 1999. "Commitment and the Perpetration of Relationship Violence." *Personal Relationships* 6:227–239.

Gelles, Richard J. 1974. *The Violent Home: A Study of Physical Aggression between Husbands and Wives.* Newbury Park, CA: Sage.

Gelles, Richard J. 1997. *Intimate Violence in Families*. 3rd ed. Thousand Oaks, CA: Sage Publications, Inc.

Gil-Gonzalez, Diana, Carmen Vives-Cases, Carlos Alvarez-Dardet, and Jaime Latour-Perez. 2006. "Alcohol and Intimate Partner Violence: Do We Have Enough Information to Act?" *European Journal of Public Health* 16:278-284.

Goldberg, Judith D. 1975. "The Effects of Misclassification on the Bias in the Difference between Two Proportions and the Relative Odds in the Fourfold Table." *Journal of the American Statistical Association* 70:561-567.

Gondolf, Edward W., Ellen Fisher, and J. Richard McFerron. 1988. "Racial Differences among Shelter Residents: A Comparison of Anglo, Black, and Hispanic Battered." *Journal of Family Violence* 3:39-51.

Goodrum, Sarah, Debra Umberson, and Kristin L. Anderson. 2001. "The Batterer's View

of the Self and Others in Domestic Violence." *Sociological Inquiry* 71:221-240.

Gover, Angela R., Catherine Kaukinen, and Kathleen A. Fox. 2008. "The Relationship between Violence in the Family of Origin and Dating Violence among College Students." *Journal of Interpersonal Violence* 23:1667-1693.

Graesser, Arthur C., Cathy L. McMahen, and Brenda K. Johnson. 1994. "Question Asking and Answering." Pp. 517-538 in *Handbook of Psycholinguistics*, edited by M. A. Gernsbacher. San Diego, CA: Academic Press.

Graham-Kevan, Nicola and John Archer. 2003. "Intimate Terrorism and Common Couple Violence: A Test of Johnson's Predictions in Four British Samples." *Journal of Interpersonal Violence* 18:1247-1270.

Gray, Heather M. and Vangie Foshee. 1997. "Adolescent Dating Violence: Differences between One-Sided and Mutually Violent Profiles." *Journal of Interpersonal Violence* 12:126-41.

Greenland, Sander and James M. Robins. 1985. "Confounding and Misclassification." *American Journal of Epidemiology* 122:495-506.

Halpern, Carolyn T., Selene G. Oslak, Mary L. Young, Sandra L. Martin, and Lawrence L. Kupper. 2001. "Partner Violence among Adolescents in Opposite-Sex Romantic Relationships: Findings from the National Longitudinal Study of Adolescent Health." *American Journal of Public Health* 91:1679-85.

Hannon, Roseann, David S. Hall, Holly Nash, Jean Formati, and Tina Hopson. 2000. "Judgments Regarding Sexual Aggression as a Function of Sex of Aggressor and Victim." *Sex Roles* 43:311-22.

Harned, Melanie S. 2002. "A Multivariate Analysis of Risk Markers for Dating Violence

Victimization." *Journal of Interpersonal Violence* 17:1179-1197.

Harris, Kathleen M. 2007. "Design Features of Add Health." *Social Psychological Quarterly* 70, Online Materials. Retrieved February 11, 2009 (http://www.asanet.org/cs/root/leftnav/publications/journals/social_psychology_quarterly/add_health).

Heckert, Alex D. and Edward W. Gondolf. 2000. "Predictors of Underreporting of Male Violence by Batterer Program Participants and Their Partners." *Journal of Family Violence* 15:423-443.

Heyman, Richard E. and Amy M. S. Slep. 2002. "Do Child Abuse and Interparental Violence Lead to Adulthood Family Violence?" *Journal of Marriage and Family* 64(4):864-870.

Hoffman, Kristi L., David H. Demo, and John N. Edwards. 1994. "Physical Wife Abuse in a Non-Western Society: An Integrated Theoretical Approach." *Journal of Marriage and the Family* 56:131-46.

Holtzworth-Munroe, Amy. 2005. "Male Versus Female Intimate Partner Violence: Putting Controversial Findings into Context." *Journal of Marriage and Family* 67:1120-1125.

Hotaling, Gerald T. and David B. Sugarman. 1986. "An Analysis of Risk Markers in Husband to Wife Violence: The Current State of Knowledge." *Violence and Victims* 1:101-124.

Hutchison, Ira W., J. David Hirschel, and Carolyn E. Pesackis. 1994. "Family Violence and Police Utilization." *Violence and Victims* 9:299-313.

Jobe, Jared B., Roger Tourangeau, and Albert F. Smith. 1993. "Contributions of Survey

Research to the Understanding of Memory." *Applied Cognitive Psychology* 7:567-584.

Johnson, Michael P. 1995. "Patriarchal Terrorism and Common Couple Violence: Two Forms of Violence against Women." *Journal of Marriage and Family* 57:283-294.

Johnson, Michael P. 2001. "Conflict and Control: Symmetry and Asymmetry in Domestic Violence.." Pp. 95-104 in *Couples in Conflict*, edited by A. Booth and A. Crouter. Mahwah, NJ: Erlbaum.

Johnson, Michael P. 2006. "Conflict and Control: Gender Symmetry and Asymmetry in Domestic Violence." *Violence against Women* 12:1003-1018.

Jones, Elise F. and Jacqueline D. Forrest. 1992. "Underreporting of Abortion in Surveys of U.S. Women: 1976 to 1988." *Demography* 29:113-126.

Jouriles, Ernest N. and K. Daniel O'Leary. 1985. "Interspousal Reliability of Reports of Marital Violence." *Journal of Consulting and Clinical Psychology* 53:419-21.

Kessler, Ronald C, Beth E Molnar, Irene D Feurer, and Mark Appelbaum. 2001. "Patterns and Mental Health Predictors of Domestic Violence in the United States: Results from the National Comorbidity Survey." *International Journal of Law and Psychiatry* 24:487-508.

Kilpatrick, Dean G., Ron Acierno, Heidi S. Resnick, Benjamin E. Saunders, and Connie L. Best. 1997. "A 2-Year Longitudinal Analysis of the Relationships between Violent Assault and Substance Use in Women." *Journal of Consulting and Clinical Psychology* 65:834-847.

Kuha, Jouni and Chris Skinner. 1997. "Chapter 28: Categorical Data Analysis and

Misclassification." Pp. 633-670 in *Survey Measurement and Process Quality*, edited by L. Lyberg, P. Biemer, M. Collins, E. DeLeeuw, C. Dippo, N. Schwarz, D. Trewin. New York: John Wiley & Sons.

Lehrer, Jocelyn A., Stephen Buka, Stephen Gortmaker, and Lydia A. Shrier. 2006. "Depressive Symptomatology as a Predictor of Exposure to Intimate Partner Violence among US Female Adolescents and Young Adults." *Archives of Pediatrics and Adolescent Medicine* 160:270–276.

Lipsky, Sherry, Raul Caetano, Craig A. Field, and Shahrzad Bazargan. 2005. "The Role of Alcohol Use and Depression in Intimate Partner Violence among Black and Hispanic Patients in an Urban Emergency Department." *American Journal of Drug and Alcohol Abuse* 31:225-242.

Lockhart, Lettie. 1991. "Spousal Violence: A Cross-Racial Perspective." Pp. 85-101 in *Black Family Violence: Current Research and Theory*, edited by R. L. Hampton. Lexington, MA: Lexington.

Macmillan, Ross and Rosemary Gartner. 1999. "When She Brings Home the Bacon: Labor-Force Participation and the Risk of Spousal Violence against Women." *Journal of Marriage and the Family* 61:947-958.

Magdol, Lynn, Terrie E. Moffitt, Avshalom Caspi, and Phil A. Silva. 1998. "Hitting Without a License: Testing Explanations for Differences in Partner Abuse between Young Adult Daters and Cohabitors." *Journal of Marriage and the Family* 60:41–55.

Margolin, Gayla, Richard S. John, and Louise Foo. 1998. "Interactive and Unique Risk Factors for Husbands' Emotional and Physical Abuse of Their Wives." *Journal of*

Family Violence 13:315-344.

Mathiowetz, Nancy A. and Robert M. Groves. 1985. "The Effects of Respondent Rules on Health Survey Reports." *American Journal of Public Health* 75:639-644.

McCloskey, Laura Ann. 1996. "Socioeconomic and Coercive Power within the Family." *Gender & Society* 10:449-463.

McKinney, Christy M., Raul Caetano, Suhasini Ramisetty-Mikler, and Scott Nelson. 2008. "Childhood Family Violence and Perpetration and Victimization of Intimate Partner Violence: Findings from a National Population-Based Study of Couples." *Annals of Epidemiology* 19:25-32.

Medina, Krista L., John Schafer, Paula K. Shear, and Tisha G. Armstrong. 2004. "Memory Ability is Associated with Disagreement about the Most Recent Conflict in Polysubstance Abusing Couples." *Journal of Family Violence* 19:387-398.

Melander, Lisa A, HarmoniJoie Noel, and Kimberly A. Tyler. Forthcoming. "Bidirectional, Unidirectional, and Nonviolence: A Comparison of the Predictors among Partnered Young Adults." *Violence & Victims*.

Melton, Heather C. and Joanne Belknap. 2003. "He Hits, She Hits: Assessing Gender Differences and Similarities in Officially Reported Intimate Partner Violence." *Criminal Justice and Behavior* 30:328-348.

Melzer, Scott A. 2002. "Gender, Work, and Intimate Violence: Men's Occupational Violence Spillover and Compensatory Violence." *Journal of Marriage and the Family* 64:820-832.

Moffitt, Terrie. E., Avshalom Caspi, Robert Krueger, Lynn Magdol, Gayla Margolin,

Phil Silva, and Ros Sydney. 1997. “Do Partners Agree about Abuse in the Relationship? A Psychometric Evaluation of Interpartner Agreement.” *Psychological Assessment* 9(1):47-56.

Moore, J. 1988. “Self/Proxy Response Status and Survey Response Quality, a Review of the Literature.” *Journal of Official Statistics* 4:155-172.

Moore, Todd M., Gregory L. Stuart, Jeffrey C. Meehan, Deborah L. Rhatigan, Julianne C. Hellmuth, and Stefanie M. Keen. 2008. “Drug Abuse and Aggression between Intimate Partners: A Meta-Analytic Review.” *Clinical Psychology Review* 28:247-274.

Muehlenhard, Charlene L. and Leigh Ann Kimes. 1999. “The Social Construction of Violence: The Case of Sexual and Domestic Violence.” *Personality & Social Psychology Review* 3:234-245.

Murray, Christine E. 2006. “Controversy, Constraints, and Context: Understanding Family Violence through Family Systems Theory.” *The Family Journal* 14:234-239.

O’Brien, John E. 1971. “Violence in Divorce Prone Families.” *Journal of Marriage and the Family* 33:692–698.

O'Donnell, Christopher J., Angie Smith, and Jeanne R. Madison. 2002. “Using Demographic Risk Factors to Explain Variations in the Incidence of Violence against Women.” *Journal of Interpersonal Violence* 17:1239-1262.

Okun, Lewis. 1986. *Women Abuse: Facts Replacing Myths*. Albany: State University of New York.

O'Leary, K. Daniel and Ileana Arias. 1988. “Assessing Agreement of Reports of Spouse

Abuse." Pp. 218-227 in *New Directions in Family Violence Research*, edited by G. T. Hotaling, D. Finkelhor, J. T. Kilpatrick, and M. A. Straus. Newbury Park, CA: Sage.

O'Leary, K. Daniel, Amy M. Smith Slep, and Susan G. O'Leary. 2007. "Multivariate models of men's and women's partner aggression." *Journal of Consulting and Clinical Psychology* 75:752-764.

O'Muircheartaigh, Colm. 1991. "Simple Response Variance: Estimation and Determinants." Pp. 551-574 in *Measurement Errors in Surveys*, edited by P. P. Biemer, R. M. Groves, L. E. Lyberg, N. A. Mathiowetz, and S. Sudman. New Jersey: John Wiley & Sons.

Panuzio, Jillian, Timothy J. O'Farrell, Amy D. Marshall, Christopher M. Murphy, Marie Murphy, and Casey T Taft. 2006. "Intimate Partner Aggression Reporting Concordance and Correlates of Agreement among Men with Alcohol Use Disorders and Their Female Partners." *Assessment* 13:266-279.

Pence, Ellen and Michael Paymar. 1993. "The Duluth Domestic Abuse Intervention Project: The Manual." Retrieved March 25, 2009 (http://www.eurowrc.org/05.education/education_en/12.edu_en.htm).

Perry, Andrea R. and Mary Ellen Fromuth. 2005. "Courtship Violence Using Couple Data: Characteristics and Perceptions." *Journal of Interpersonal Violence* 20:1078-1095.

Putrevu, Sanjay. 2001. "Exploring the Origins and Information Processing Differences between Men and Women: Implications for Advertisers." *Academy of Marketing Science Review* 10:1–14.

Radloff, Lenore S. 1977. “The CES-D Scale: A Self-Report Depression Scale for Research in the General Population.” *Applied Psychological Measurement* 1:385-401.

Raghunathan, Trivellore E., James M. Lepkowski, John Van Hoewyk, and Peter Solenberger. 2001. “A Multivariate Technique for Multiply Imputing Missing Values Using a Sequence of Regression Models.” *Survey Methodology* 27: 85-95.

Rennison, Callie, M. and Sarah Welchans. 2000. “Intimate Partner Violence.” Washington, DC: U.S. Department of Justice. Retrieved May 2009 (http://www.legis.state.wi.us/assembly/asm76/news/PDF%20Files/intimate%20partner%20violence.pdf).

Rich, Cindy L., Christine A. Gidycz, Jennifer B. Warkentin, Catherine Loh, and Paul Weiland. 2005. “Child and Adolescent Abuse and Subsequent Victimization: A Prospective Study.” *Child Abuse and Neglect* 29:1373-1394.

Robertson, Kirsten and Tamar Murachver. 2007. “Predictors of Partner Violence for Incarcerated Women and Men.” *Journal of Interpersonal Violence* 22:639-655.

Rubin, Donald B. 1987. *Multiple Imputation for Nonresponse in Surveys*. New York: Wiley & Sons.

Schafer, John, Raul Caetano, and Catherine L Clark. 1998. “Rates of Intimate Partner Violence in the United States.” *American Journal of Public Health* 88:1702-1704.

Schafer, John, Raul Caetano, and Catherine L. Clark. 2002. “Agreement about Violence in U.S. Couples.” *Journal of Interpersonal Violence* 17(4):457-70.

Schwartz, Martin D. and Walter S. DeKeseredy. 1993. “The Return of the “Battered Husband Syndrome” Through the Typification of Women as Violent.” *Crime,*

Law and Social Change 20:249-265.

Simon, Thomas R, Mark Anderson, Martie P. Thompson, Alex E. Crosby, Gene Shelley, and Jeffrey J. Sacks. 2001. "Attitudinal Acceptance of Intimate Partner Violence among U.S. Adults." *Violence and Victims* 16:115-126.

Sorenson, Susan B. and Catherine A. Taylor. 2005. "Female Aggression toward Male Intimate Partners: An Examination of Social Norms in a Community-Based Sample." *Psychology of Women Quarterly* 29:78-96.

Stets, Jan E. and Murray A. Straus. 1990. "The Marriage License as a Hitting License: A Comparison of Assaults in Dating, Cohabitating, and Married Couples.." Pp. 227-244 in *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families*, edited by M. A. Straus and R. J. Gelles. New Brunswick, NJ: Transaction.

Stith, Sandra M., Douglas B. Smith, Carrie E. Penn, David B. Ward, and Dari Tritt. 2004. "Intimate Partner Physical Abuse Perpetration and Victimization Risk Factors: A Meta-Analytic Review." *Aggression and Violent Behavior* 10:65-98.

Stith, Sandra M., Narkia M. Green, Douglas B. Smith, and David B. Ward. 2008. "Marital Satisfaction and Marital Discord as Risk Markers for Intimate Partner Violence: A Meta-Analytic Review." *Journal of Family Violence* 23:149-160.

Straus, Murray A. 1971. "Some Social Antecedents of Physical Punishment: A Linkage Theory Interpretation." *Journal of Marriage and the Family* 33:658-663.

Straus, Murray A. 1973. "A General Systems Theory Approach to a Theory of Violence between Family Members." *Social Science Information* 12:105-125.

Straus, Murray A. 1979. "Measuring Intrafamily Conflict and Violence: The Conflict Tactics (CT) Scales." *Journal of Marriage and the Family* 41:75-88.

Straus, Murray A. 1990. "The Conflicts Tactics Scales and its Critics: An Evaluation and New Data on Validity and Reliability." Pp. 49-73 in *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families*, edited by M. Straus, and R.J. Gelles. New Brunswick, NJ: Transaction Publishers.

Straus, Murray A. 1993. "Physical Assaults by Women: A Major Social Problem." Pp. 67-87 in *Current Controversies on Family Violence*, edited by D. R. Loseke, R. J. Gelles, and M. M. Cavanaugh. Newbury Park, CA: Sage.

Straus, Murray A. and Richard J. Gelles. 1990. *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families.* New Brunswick, NJ: Transaction Publishers.

Straus, Murray A., Richard J. Gelles, and Suzanne K. Steinmetz. 1981. *Behind Closed Doors: Violence in the American Family*. Garden City, NY: Anchor Books.

Straus, Murray A., Sherry L. Hamby, Sue Boney-Mccoy, and David B. Sugarman. 1996. "The Revised Conflict Tactics Scales (CTS2): Development and Preliminary Psychometric Data." *Journal of Family Issues* 17:283-316.

Sudman, Seymour and Norman M. Bradburn. 1973. "Effects of Time and Memory Factors on Response in Surveys." *Journal of the American Statistical Association* 68:805-815.

Sudman, Seymour and Norman M. Bradburn. 1974. *Response Effects in Surveys*. Chicago, IL: Aldine Publishing Company.

Sugarman, David B., and Gerald T. Hotaling. 1997. "Intimate Violence and Social

Desirability: A Meta-Analytic Review." *Journal of Interpersonal Violence* 12:275-290.

Swan, Suzanne C. and David L. Snow. 2003. "Behavioral and Psychological Differences Among Abused Women Who Use Violence in Intimate Relationships." *Violence against Women* 9:75-109.

Swan, Suzanne C. and David L. Snow. 2006. "The Development of a Theory of Women's Use of Violence in Intimate Relationships." *Violence against Women* 12:1026-1045.

Szinovacz, Maximiliane E. and Lance C. Egley. 1995. "Comparing One-Partner and Couple Data on Sensitive Marital Behaviors: The Case of Marital Violence." *Journal of Marriage and the Family* 57:995-1010.

Thompson, Charles P., John J. Skowronski, Steen F. Larsen, and Andrew L. Betz. 1996. *Autobiographical Memory: Remembering What and Remembering When*. Mahwah, New Jersey: Lawrence Erlbaum Associates Inc.

Tjaden, Patricia and Nancy Thoennes. 2000. "Extent, Nature, and Consequences of Intimate Partner Violence: Findings from the National Violence against Women Survey." (U.S. Department of Justice, No. 181867). Washington, D.C.: National Institute of Justice.

Tourangeau, Roger and Tom W. Smith. 1996. "Asking Sensitive Questions: The Impact of Data Collection Mode, Question Format, and Question Context." *Public Opinion Quarterly* 60:275–304.

Tourangeau, Roger, Lance J. Rips, and Kenneth Rasinski. 2000. *The Psychology of Survey Response*. New York: Cambridge University Press.

Tourangeau, Roger and Kenneth Rasinski. 1988. “Cognitive Processes Underlying Context Effects in Attitude Measurement.” *Psychological Bulletin* 103:299-314.

Tourangeau, Roger. 1984. “Cognitive Sciences and Survey Methods.” Pp. 73-100 in *Cognitive Aspects of Survey Methodology: Building a Bridge Between Disciplines*, edited by T. B. Jabine, M. L. Straf, J. M. Tanur, and R. Tourangeau. Washington, D.C.: National Academy of Science.

Tourangeau, Roger. 2000. “Remembering What Happened: Memory Errors and Survey Reports. Pp. 29-48 in *The Science of Self-Report: Implications for Research and Practice*, edited by A. A. Stone, J. S. Turkkan, C. A. Bachrach, J. B. Jobe, H. S. Kurtzman, and V. S. Cain. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Tulving, Endel. 1983. *Elements of Episodic Memory*. Oxford: Oxford University Press.

Vega, Edward and K. David O’Leary. 2007. “Test–Retest Reliability of the Revised Conflict Tactics Scales (CTS2).” *Journal of Family Violence* 22:703-708.

Weston, Rebecca, Jeff R. Temple, and Linda L. Marshall. 2005. “Gender Symmetry and Asymmetry in Violent Relationships: Patterns of Mutuality among Racially Diverse Women.” *Sex Roles* 53:553-571.

Whitfield, Charles L., Robert F. Anda, Shanta R. Dube, and Vincent J. Felitti. 2003. “Violent Childhood Experiences and the Risk of Intimate Partner Violence in Adults: Assessment in a Large Health Maintenance Organization.” *Journal of Interpersonal Violence, 18*, 166-185.

Williams, Stacey L. and Irene H. Frieze. 2005. “Patterns of Violent Relationships, Psychological Distress, and Marital Satisfaction in a National Sample of Men and Women.” *Sex Roles* 52:771-784.

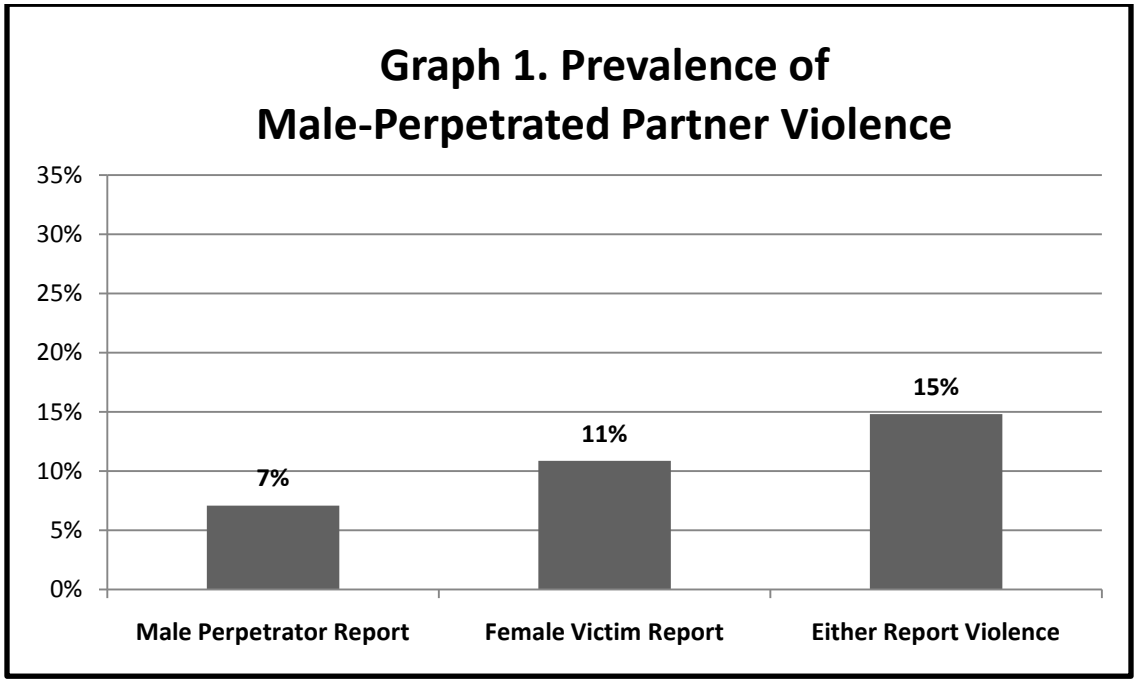
Willis, Gordon, Angela Brittingham, Lisa Lee, Roger Touragneau, and Pamela Ching. 1999. Response Errors in Surveys of Children's Immunizations. Vital and Health Statistics, Series 6, Number 8. Hyattsville, MD: National Center for Health Statistics.

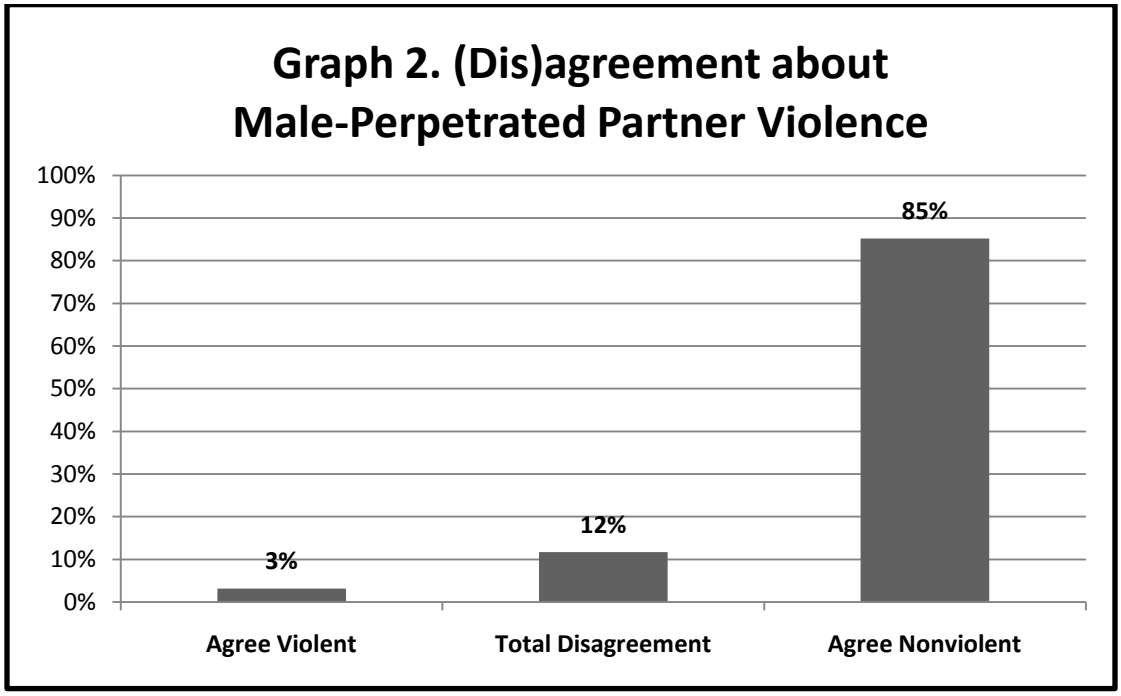
Yllo, Kersti and Michele Bograd. 1988. *Feminist Perspectives on Wife Abuse*. Newbury Park, CA: Sage.

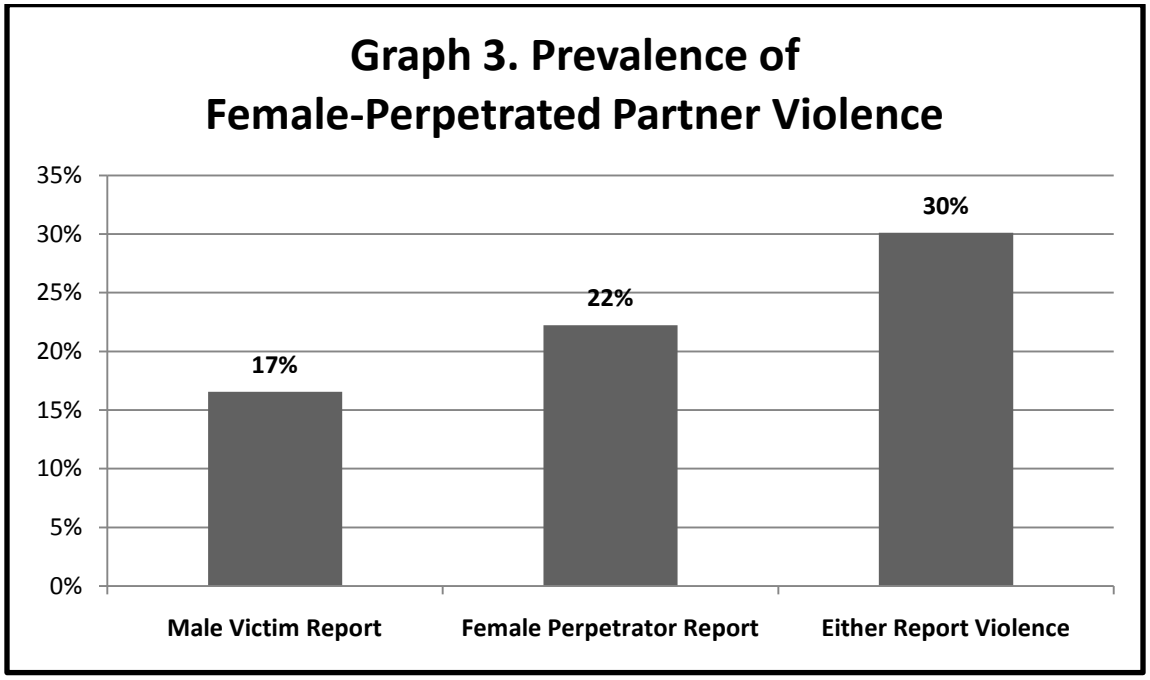
Table 1. Cross-tabuations of Male and Female Reports of Male-Perpetrated and Female-Perpetrated Partner Violence

	Male-Perpetrated Partner Violence				Female-Perpetrated Partner Violence		
	Female Partner				Female Partner		
Male Partner	No Violence (=0)	Yes Violence (=1)	Total	Male Partner	No Violence (=0)	Yes Violence (=1)	Total
No Violence (=0)	1081 (85%)	98 (8%)	1179 (93%)	No Violence (=0)	887 (70%)	172 (14%)	1059 (83%)
Yes Violence (=1)	50 (4%)	40 (3%)	90 (7%)	Yes Violence (=1)	100 (8%)	110 (9%)	210 (17%)
Total	1131 (89%)	138 (11%)	1269 (100%)	Total	987 (78%)	282 (22%)	1269 (100%)

Notes: The number of couples is given in each cell followed by the corresponding percentage out of the total sample size n = 1269.
Row and column total percentages may be slightly off due to rounding.


Graph 1. Prevalence of
Male-Perpetrated Partner Violence
35%
30%
25%
20%
15%
10%
5%
0%
7%
11%
15%
Male Perpetrator Report
Female Victim Report
Either Report Violence


Graph 2. (Dis)agreement about Male-Perpetrated Partner Violence
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
3%
12%
85%
Agree Violent
Total Disagreement
Agree Nonviolent


Graph 3. Prevalence of
Female-Perpetrated Partner Violence
35%
30%
25%
20%
15%
10%
5%
0%
17%
22%
30%
Male Victim Report
Female Perpetrator Report
Either Report Violence

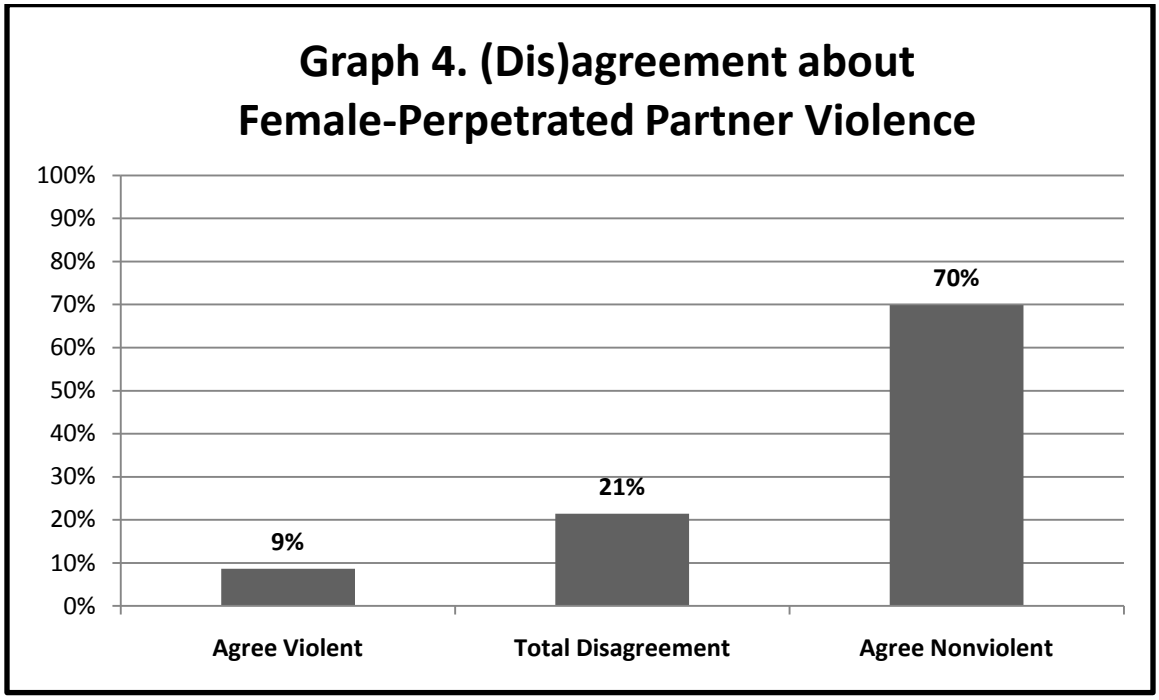

Graph 4. (Dis)agreement about Female-Perpetrated Partner Violence
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
9%
21%
70%
Agree Violent
Total Disagreement
Agree Nonviolent

Figure 4. Hypotheses for Patterns of Significant Odds Ratios for Predictors of MPV and FPV Across Different Reports of IPV

	Male-Perpetrated Partner Violence (MPV)			Female-Perpetrated Partner Violence (FPV)		
	Male Report Perpetration	Female Report Victimization	Either Report MPV	Male Report Victimization	Female Report Perpetration	Either Report FPV
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Couple Characteristics						
Dating[a]			-			-
Married[a]			-			-
Relationship duration			+/-			+/-
Couple Black[b]			+			+
Couple Hispanic[b]			+			+
Couple Other[b]			?			?
Couple Mixed[b]			?			?
Male Characteristics						
Relationship satisfaction	-			-		
Childhood physical abuse	+			+		
Childhood sexual abuse	+			+		
Alcohol use	+			+		
Drug use	+			+		
Depressive symptoms	+			+		
Education[c]	-			-		
Unemployed	+			+		
Female Characteristics						
Relationship satisfaction		-			-	
Childhood physical abuse		+			+	
Childhood sexual abuse		+			+	
Alcohol use		+			+	
Drug use		+			+	
Depressive symptoms		+			+	
Education[c]		-			-	
Unemployed		+			+	

Notes: + and - show hypothesized direction of coefficients for predictors of IPV. Unclear hypotheses for the direction of relationships are shown with ?.

[a]reference category is cohabitation. [b]reference category is White. [c]education in years

Table 2. Patterns of Significant Odds Ratios for Predictors of MPV and FPV Across Different Reports of IPV

	Male-Perpetrated Partner Violence (MPV)			Female-Perpetrated Partner Violence (FPV)		
	Male Report Perpetration	Female Report Victimization	Either Report MPV	Male Report Victimization	Female Report Perpetration	Either Report FPV
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Couple Characteristics						
Dating[a]		- *	- †		- **	- **
Married[a]						
Relationship duration	+ ***	+ †	+ **	+ ***	+ †	+ **
Couple Black[b]						
Couple Hispanic[b]						
Couple Other[b]						
Couple Mixed[b]						
Male Characteristics						
Relationship satisfaction			- †			
Childhood physical abuse						
Childhood sexual abuse						
Alcohol use						
Drug use	+ †			+ **		+ *
Depressed mood	+ **		+ †	+ ***		+ *
Education[c]					- *	- *
Unemployed						- *
Female Characteristics						
Relationship satisfaction		- **	- **		- †	
Childhood physical abuse			+ †			
Childhood sexual abuse	+ †		+ *			+ †
Alcohol use					+ **	
Drug use				- †		
Depressed mood		+ *		+ *	+ *	+ *
Education[c]						
Unemployed					- *	

Notes: N=1269. †p < .10.*p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.

[a]reference category is cohabitation. [b]reference category is White. [c]education in years.

Figure 5. **Hypotheses** for Multinomial Logistic Regression Models for Male-Perpetrated Partner Violence

	Male-Perpetrated Partner Violence: Male Perpetrator/Female Victim			
	Male Overreport Perp	Female Overreport Victim	Male Underreport Perp	Female Underreport Victim
	Male Yes/Female No vs. Male No/Female No	Male No/Female Yes vs. Male No/Female No	Male No/Female Yes vs. Male Yes/Female Yes	Male Yes/Female No vs. Male Yes/Female Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood	+			+
Female depressed mood		+	+	
Female relationship management			+	
Comprehension				
Male relationship satisfaction			+	
Female relationship satisfaction				+
Retrieval				
Relationship duration	+	+	+	+
Male alcohol use			+	
Female alcohol use				+
Male drug use			+	
Female drug use				+
Response Editing				
Male social desirability			+	
Female social desirability				
Male unemployment			+	
Female unemployment				+
Male relationship commitment			+	
Female relationship commitment				+
Male masculinity	+			
Male lack of privacy			+	
Female lack of privacy				+

Notes: Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category.
Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category.
Perp = perpetration. Victim = victimization.

Table 3. **Bivariate** Multinomial Logistic Regression Models for Male-Perpetrated Partner Violence (Odds Ratios)

	Male-Perpetrated Partner Violence: Male Perpetrator/Female Victim			
	Male Overreport Perp	Female Overreport Victim	Male Underreport Perp	Female Underreport Victim
	Male Yes/Female No vs. Male No/Female No	Male No/Female Yes vs. Male No/Female No	Male No/Female Yes vs. Male Yes/Female Yes	Male Yes/Female No vs. Male Yes/Female Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood	1.12 **	1.01	0.84 ***	0.94
Female depressed mood	0.94	1.09 **	0.95 †	0.81 ***
Female relationship management	0.90	0.96	1.10	1.03
Comprehension				
Male relationship satisfaction	0.65 *	0.76 †	1.33	1.14
Female relationship satisfaction	0.95	0.55 ***	1.08	1.86 *
Retrieval				
Relationship duration	1.26 **	1.07	0.87	1.04
Male alcohol use	0.76 †	0.93	0.61 ***	0.49 ***
Female alcohol use	0.61	1.06	0.76	0.44 *
Male drug use	1.18	0.91	0.21 **	0.27 *
Female drug use	0.68	1.31	0.38 †	0.20 *
Response Editing				
Male social desirability	1.43 †	1.02	0.84	1.17
Female social desirability	0.99	1.01	1.71 *	1.68
Male unemployment	0.52	0.89	0.22 *	0.14 *
Female unemployment	1.05	0.55	0.47	0.88
Male relationship commitment	0.87	0.97	1.43 *	1.28
Female relationship commitment	0.86	0.65 **	1.03	1.34
Male masculinity	0.97	1.00	0.97	0.94 †
Male lack of privacy	1.03	0.80	0.49	0.64
Female lack of privacy	0.94	0.54 †	0.34 †	0.59

Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.

Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category.

Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category.

Perp = perpetration. Victim = victimization.

Table 4. **Blocked** Multinomial Logistic Regression Models for Male-Perpetrated Partner Violence (Odds Ratios)

	Male-Perpetrated Partner Violence: Male Perpetrator/Female Victim			
	Male Overreport Perp	Female Overreport Victim	Male Underreport Perp	Female Underreport Victim
	Male Yes/Female No vs. Male No/Female No	Male No/Female Yes vs. Male No/Female No	Male No/Female Yes vs. Male Yes/Female Yes	Male Yes/Female No vs. Male Yes/Female Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood	1.15 **	0.98	0.84 **	0.99
Female depressed mood	0.90 *	1.09 **	0.97	0.80 ***
Female relationship management	0.87	1.00	1.07	0.92
Comprehension				
Male relationship satisfaction	0.65 *	0.76 †	1.35	1.08
Female relationship satisfaction	0.95	0.55 ***	1.06	1.90 *
Retrieval				
Relationship duration	1.27 **	1.06	0.80 *	0.95
Male alcohol use	0.79	0.89	0.65 **	0.58 *
Female alcohol use	0.70	1.08	1.02	0.66
Male drug use	2.12 †	0.81	0.28	0.73
Female drug use	0.93	1.57	0.86	0.50
Response Editing				
Male social desirability	1.43 †	0.97	0.83	1.22
Female social desirability	0.97	1.00	1.72 *	1.67
Male unemployment	0.44	1.13	0.29	0.13 *
Female unemployment	1.18	0.59	0.68	1.30
Male relationship commitment	0.87	1.07	1.41 †	1.18
Female relationship commitment	0.90	0.64 **	0.97	1.34
Male masculinity	0.97	0.99	0.94	0.92 *
Male lack of privacy	1.08	1.10	0.77	0.75
Female lack of privacy	0.98	0.52	0.51	0.96

Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.
Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category.
Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category.
Perp = perpetration. Victim = victimization.

Table 5. **Full** Multinomial Logistic Regression Models for Male-Perpetrated Partner Violence (Odds Ratios)

	Male-Perpetrated Partner Violence: Male Perpetrator/Female Victim			
	Male Overreport Perp	Female Overreport Victim	Male Underreport Perp	Female Underreport Victim
	Male Yes/Female No vs. Male No/Female No	Male No/Female Yes vs. Male No/Female No	Male No/Female Yes vs. Male Yes/Female Yes	Male Yes/Female No vs. Male Yes/Female Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood	1.16 *	0.99	0.88 *	1.02
Female depressed mood	0.90 *	1.09 **	1.03	0.85 *
Female relationship management	0.93	1.07	1.17	1.01
Comprehension				
Male relationship satisfaction	0.69	0.73	0.91	0.85
Female relationship satisfaction	0.92	0.65 *	1.05	1.47
Retrieval				
Relationship duration	1.28 **	1.08	0.83	0.99
Male alcohol use	0.77	0.90	0.68 *	0.58 *
Female alcohol use	0.70	1.03	1.06	0.72
Male drug use	1.63	0.76	0.31	0.67
Female drug use	1.16	1.41	0.71	0.59
Response Editing				
Male social desirability	1.28	0.96	1.00	1.33
Female social desirability	1.00	0.99	1.54 †	1.57
Male unemployment	0.28	0.81	0.39	0.13 †
Female unemployment	0.99	0.56	0.59	1.03
Male relationship commitment	0.98	1.20	1.21	0.99
Female relationship commitment	0.89	0.84	0.90	0.95
Male masculinity	0.97	1.00	0.97	0.94
Male lack of privacy	0.98	1.24	0.65	0.51
Female lack of privacy	1.04	0.43 *	0.67	1.61

Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.
Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category.
Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category.
Perp = perpetration. Victim = victimization.

Figure 6. **Hypotheses** for Multinomial Logistic Regression Models for Female-Perpetrated Partner Violence

	Female-Perpetrated Partner Violence: Female Perpetrator/Male Victim			
	Female Overreport Perp	Male Overreport Victim	Female Underreport Perp	Male Underreport Victim
	Female Yes/Male No vs. Female No/Male No	Female No/Male Yes vs. Female No/Male No	Female No/Male Yes vs. Female Yes/Male Yes	Female Yes/Male No vs. Female Yes/Male Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood		+	+	
Female depressed mood	+			+
Female relationship management				+
Comprehension				
Male relationship satisfaction				+
Female relationship satisfaction			+	
Retrieval				
Relationship duration	+	+	+	+
Male alcohol use				+
Female alcohol use			+	
Male drug use				+
Female drug use			+	
Response Editing				
Male social desirability				
Female social desirability			+	
Male unemployment				+
Female unemployment			+	
Male relationship commitment				+
Female relationship commitment			+	
Male masculinity				+
Male lack of privacy				+
Female lack of privacy			+	

Notes: Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category. Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category. Perp = perpetration. Victim = victimization.

Table 6. **Bivariate** Multinomial Logistic Regression Models for Female-Perpetrated Partner Violence (Odds Ratios)

	Female-Perpetrated Partner Violence: Female Perpetrator/Male Victim			
	Female Overreport Perp	Male Overreport Victim	Female Underreport Perp	Male Underreport Victim
	Female Yes/Male No vs. Female No/Male No	Female No/Male Yes vs. Female No/Male No	Female No/Male Yes vs. Female Yes/Male Yes	Female Yes/Male No vs. Female Yes/Male Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood	1.01	1.12 **	0.97	0.88 **
Female depressed mood	1.08 **	1.03	0.90 **	0.95 †
Female relationship management	1.04	1.16	1.24	1.14
Comprehension				
Male relationship satisfaction	1.01	0.82	1.27	1.52 *
Female relationship satisfaction	0.64 **	1.04	1.47	0.90
Retrieval				
Relationship duration	1.03	1.11 †	0.94	0.87 †
Male alcohol use	1.02	1.01	0.87	0.88
Female alcohol use	1.17	0.77	0.65 *	0.98
Male drug use	1.11	1.99 *	0.92	0.52 †
Female drug use	1.40	0.88	0.44 *	0.70
Response Editing				
Male social desirability	0.97	1.15	0.81	0.69 **
Female social desirability	1.09	0.97	0.94	1.05
Male unemployment	0.36 *	0.58	0.36	0.17 ***
Female unemployment	0.60	1.53	1.45	0.59
Male relationship commitment	0.90	0.85	0.95	1.02
Female relationship commitment	0.72 **	1.11	1.53 †	0.99
Male masculinity	0.98	1.01	0.99	0.96
Male lack of privacy	0.77	0.74	0.69	0.71
Female lack of privacy	0.53 *	0.91	0.73	0.42 **

Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.

Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category.

Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category.

Perp = perpetration. Victim = victimization.

Table 7. **Blocked** Multinomial Logistic Regression Models for Female-Perpetrated Partner Violence (Odds Ratios)

	Female-Perpetrated Partner Violence: Female Perpetrator/Male Victim			
	Female Overreport Perp	Male Overreport Victim	Female Underreport Perp	Male Underreport Victim
	Female Yes/Male No vs. Female No/Male No	Female No/Male Yes vs. Female No/Male No	Female No/Male Yes vs. Female Yes/Male Yes	Female Yes/Male No vs. Female Yes/Male Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood	0.99	1.12 **	1.00	0.88 **
Female depressed mood	1.08 ***	1.01	0.91 *	0.97
Female relationship management	1.08	1.17	1.19	1.11
Comprehension				
Male relationship satisfaction	1.01	0.82	1.21	1.60 *
Female relationship satisfaction	0.64 **	1.04	1.44	0.85
Retrieval				
Relationship duration	1.05	1.12 †	0.90	0.84 *
Male alcohol use	0.95	1.02	0.97	0.90
Female alcohol use	1.18	0.76	0.71 †	1.09
Male drug use	0.97	2.73 **	1.40	0.50
Female drug use	1.31	0.75	0.48	0.84
Response Editing				
Male social desirability	0.92	1.17	0.81	0.64 **
Female social desirability	1.09	0.95	0.92	1.05
Male unemployment	0.40 †	0.49	0.32	0.20 ***
Female unemployment	0.71	1.81	1.96	0.81
Male relationship commitment	0.93	0.80	0.84	0.99
Female relationship commitment	0.72 *	1.16	1.57 †	0.96
Male masculinity	0.98	1.01	0.98	0.94
Male lack of privacy	1.06	0.63	0.65	1.12
Female lack of privacy	0.56 †	1.16	0.90	0.44 †

Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.
Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category.
Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category.
Perp = perpetration. Victim = victimization.

Table 8. **Full** Multinomial Logistic Regression Models for Female-Perpetrated Partner Violence (Odds Ratios)

	Female-Perpetrated Partner Violence: Female Perpetrator/Male Victim			
	Female Overreport Perp	Male Overreport Victim	Female Underreport Perp	Male Underreport Victim
	Female Yes/Male No vs. Female No/Male No	Female No/Male Yes vs. Female No/Male No	Female No/Male Yes vs. Female Yes/Male Yes	Female Yes/Male No vs. Female Yes/Male Yes
	Column 1	Column 2	Column 3	Column 4
Encoding				
Male depressed mood	1.01	1.12 **	1.01	0.92 †
Female depressed mood	1.07 *	1.00	0.90 *	0.96
Female relationship management	1.10	1.18	1.23	1.15
Comprehension				
Male relationship satisfaction	1.08	0.98	1.35	1.48
Female relationship satisfaction	0.69 †	0.89	0.95	0.74
Retrieval				
Relationship duration	1.06	1.12 †	0.90	0.85 *
Male alcohol use	0.95	0.99	0.97	0.94
Female alcohol use	1.14	0.77	0.70	1.05
Male drug use	1.04	2.35 *	1.51	0.67
Female drug use	1.15	0.77	0.54	0.81
Response Editing				
Male social desirability	0.91	1.10	0.84	0.70 *
Female social desirability	1.07	0.94	0.87	0.99
Male unemployment	0.25 *	0.34	0.29	0.21 **
Female unemployment	0.78	1.60	2.06	1.01
Male relationship commitment	0.93	0.85	0.73	0.79
Female relationship commitment	0.90	1.13	1.24	0.99
Male masculinity	0.97	1.01	0.99	0.95
Male lack of privacy	1.13	0.61	0.58	1.08
Female lack of privacy	0.54 †	1.33	1.36	0.55

Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.

Column 1 and 2 are from on the same multinomial regression model where agreement about the absence of violence was the reference category.

Column 3 and 4 are from on a different multinomial regression model where agreement about the presence of violence was the reference category.

Perp = perpetration. Victim = victimization.

Table 9. Interaction for Male and Female Commitment Predicting the Log Odds of the Female Partner Underreporting Victimization

	Male-Perpetrated Partner Violence		
	Female Underreport Victimization		
	Bivariate	Blocked	Full
Relationship Commitment Interaction			
Intercept	6.86 *	6.51 *	9.67 *
Male relationship commitment	-1.93 **	-1.77 *	-1.86 *
Female relationship commitment	-1.80 **	-1.56 **	-1.84 †
Male commitment x female commitment	0.50 **	0.45 **	0.44 *

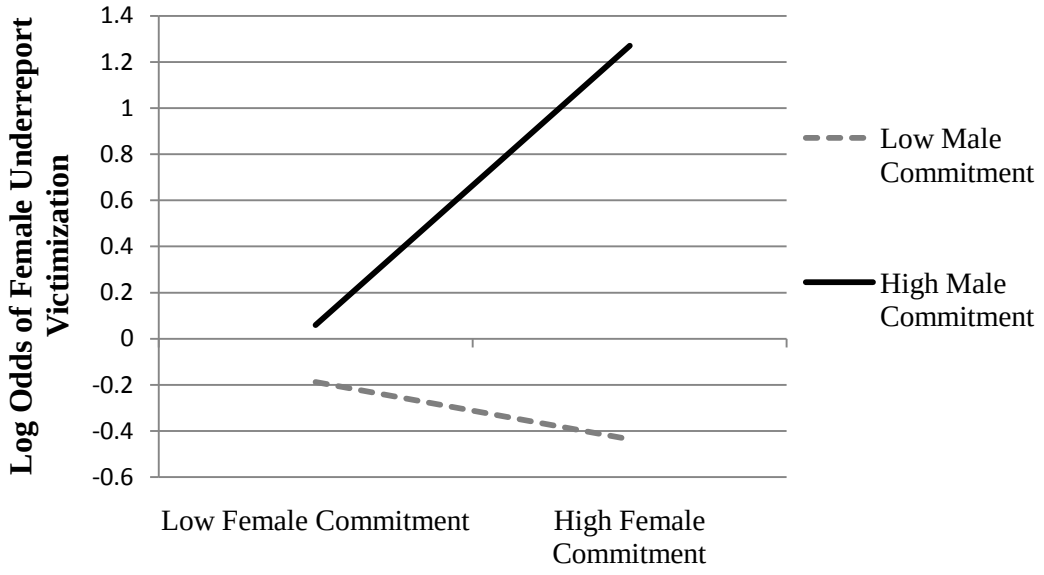
Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.

Table 10. Interactions for Male and Female Unemployment and Commitment Predicting the Log Odds of the Female Partner Underreporting Perpetration

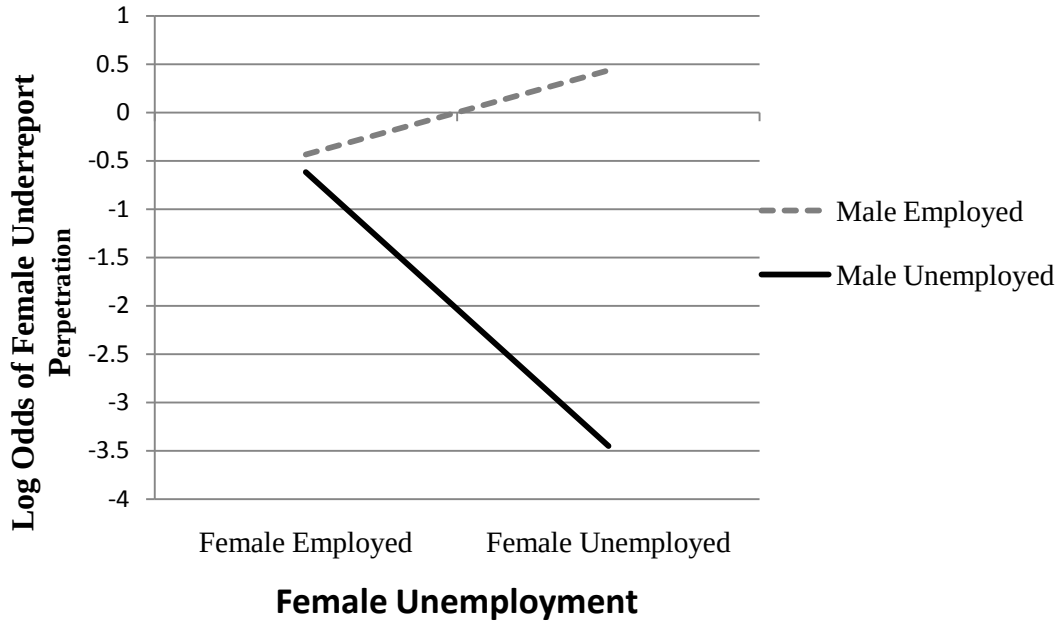
	Female-Perpetrated Partner Violence		
	Female Underreport Perpetration		
	Bivariate	Blocked	Full
Unemployment Interaction			
Intercept	-0.43 *	2.42	0.21
Male unemployment	-0.18	-0.21	-0.41
Female unemployment	0.87 †	1.00 †	1.01 †
Male unemployment x female unemployment	-3.71 *	-3.60 *	-3.43 *
Relationship Commitment Interaction			
Intercept	1.81	2.42	0.21
Male relationship commitment	-1.05 *	-0.93 †	-0.33
Female relationship commitment	-0.41	-0.25	0.20
Male commitment x female commitment	0.21 †	0.17	-----

Notes: N=1269 couples. †p<.10. *p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.
----- because the male commitment x female commitment interaction was not significant in Blocked model it was not included in Full model

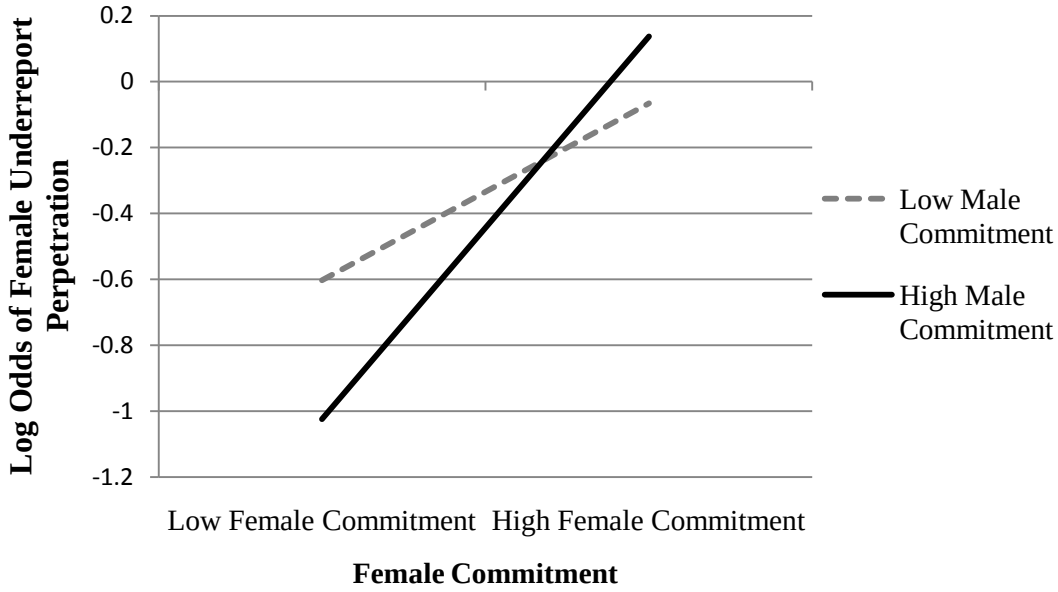
Graph 5. Effect of Female Commitment on Female Underreporting Victimization by Male Commitment



Graph 6. Effect of Female Unemployment on Female Underreporting Perpetration by Male Unemployment



Graph 7. Effect of Female Commitment on Female Underreporting Perpetration by Male Commitment



Appendix A: Physical Violence Items from the Revised Conflict Tactics Scales

Physical Violence Items from CTS2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996)

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Please circle how many times you did each of these things in the past year, and how many times your partner did them in the past year. If you or your partner did not do one of theses things in the past year, but it happened before that, circle "7".

How often did this happen?

1 = Once in the past year
2 = Twice in the past year
3 = 3-5 times in the past year
4 = 6-10 times in the past year
5 = 11-20 times in the past year
6 = More than 20 times in the past year
7 = Not in the past year, but it did happen before
0 = This has never happened

I threw something at my partner that could hurt
My partner did this to me
I twisted my partner's arm or hair
My partner did this to me
I pushed or shoved my partner
My partner did this to me
I grabbed my partner
My partner did this to me
I slapped my partner
My partner did this to me
I used a knife or gun on my partner
My partner did this to me
I punched or hit my partner with something that could hurt
My partner did this to me
I choked my partner
My partner did this to me
I slammed my partner against a wall
My partner did this to me
I beat up my partner
My partner did this to me
I burned or scalded my partner on purpose
My partner did this to me
I kicked my partner
My partner did this to me

Appendix B: Crosstab of Original Add Health Physical Violence for MPV

Male Report Perp	Female Report Victim	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	0	1081	85.19	1081	85.19
0	1	57	4.49	1138	89.68
0	2	20	1.58	1158	91.25
0	3	14	1.1	1172	92.36
0	5	1	0.08	1173	92.43
0	6	4	0.32	1177	92.75
0	7	2	0.16	1179	92.91
1	0	30	2.36	1209	95.27
1	1	8	0.63	1217	95.9
1	2	5	0.39	1222	96.3
1	3	5	0.39	1227	96.69
1	4	3	0.24	1230	96.93
1	5	1	0.08	1231	97.01
1	6	3	0.24	1234	97.24
2	0	14	1.1	1248	98.35
2	2	3	0.24	1251	98.58
2	5	2	0.16	1253	98.74
3	0	3	0.24	1256	98.98
3	2	1	0.08	1257	99.05
3	3	3	0.24	1260	99.29
3	4	3	0.24	1263	99.53
4	0	2	0.16	1265	99.68
4	3	1	0.08	1266	99.76
5	3	1	0.08	1267	99.84
6	0	1	0.08	1268	99.92
6	4	1	0.08	1269	100

Note: MPV = male-perpetrated partner violence. Response options: 0 = never, 1 = once, 2 = twice, 3 = 3-5 times, 4 = 6-10 times, 5 = 11-20 times, 6 = more than 20 times, 7 = this hasn't happened in the past year, but did happen before then.

Appendix C: Crosstab of Original Add Health Physical Violence for FPV

Female Report Perp	Male Report Victim	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	0	887	69.9	887	69.9
0	1	50	3.94	937	73.84
0	2	19	1.5	956	75.33
0	3	21	1.65	977	76.99
0	4	3	0.24	980	77.23
0	5	3	0.24	983	77.46
0	6	2	0.16	985	77.62
0	7	2	0.16	987	77.78
1	0	73	5.75	1060	83.53
1	1	18	1.42	1078	84.95
1	2	5	0.39	1083	85.34
1	3	6	0.47	1089	85.82
1	4	2	0.16	1091	85.97
1	5	1	0.08	1092	86.05
1	6	3	0.24	1095	86.29
2	0	46	3.62	1141	89.91
2	1	8	0.63	1149	90.54
2	2	11	0.87	1160	91.41
2	3	14	1.1	1174	92.51
2	4	1	0.08	1175	92.59
2	5	2	0.16	1177	92.75
2	6	1	0.08	1178	92.83
3	0	40	3.15	1218	95.98
3	1	10	0.79	1228	96.77
3	2	3	0.24	1231	97.01
3	3	8	0.63	1239	97.64
3	5	2	0.16	1241	97.79
3	6	3	0.24	1244	98.03
4	0	6	0.47	1250	98.5
4	1	2	0.16	1252	98.66
4	2	1	0.08	1253	98.74
4	5	1	0.08	1254	98.82
4	6	1	0.08	1255	98.9
5	0	3	0.24	1258	99.13
5	4	2	0.16	1260	99.29
5	6	1	0.08	1261	99.37
6	0	4	0.32	1265	99.68
6	3	1	0.08	1266	99.76
6	4	1	0.08	1267	99.84
6	5	1	0.08	1268	99.92
7	2	1	0.08	1269	100

Note: FPV = female-perpetrated partner violence. Response options: 0 = never, 1 = once, 2 = twice, 3 = 3-5 times, 4 = 6-10 times, 5 = 11-20 times, 6 = more than 20 times, 7 = this hasn't happened in the past year, but did happen before then.

Appendix D: Descriptives for Predictors of MPV and FPV

Variables	Range	N	Weighted Mean	SD
Dependent Variables				
MPV				
Male Report Perp	0-1	1269	.07	-----
Female Report Victim	0-1	1269	.11	-----
Either Report MPV	0-1	1269	.15	-----
FPV				
Female Report Perp	0-1	1269	.23	-----
Male Report Victim	0-1	1269	.16	-----
Either Report FPV	0-1	1269	.29	-----
Independent Variables				
Couple Characteristics				
Dating	0-1	1269	.26	-----
Married	0-1	1269	.36	-----
Cohab	0-1	1269	.37	-----
Relationship duration	0-14	1161	3.17	2.24
Couple White	0-1	1269	.68	-----
Couple Black	0-1	1269	.10	-----
Couple Hispanic	0-1	1269	.05	-----
Couple Other	0-1	1269	.02	-----
Couple Mixed	0-1	1269	.15	-----
Male Characteristics				
Male relationship satisfaction	1-5	1263	4.66	.73
Male childhood physical abuse	0-5	1211	1.01	1.67
Male childhood sexual abuse	0-1	1214	.04	-----
Male alcohol use	0-6	1242	1.22	1.44
Male drug use	0-1	1261	.14	-----
Male depressed mood	0-25	1269	3.86	3.72
Male education	7-21	1268	12.67	1.99
Male unemployed	0-1	1245	.15	-----
Female Characteristics				
Female relationship satisfaction	1-5	1264	4.67	.79
Female childhood physical abuse	0-5	1245	.78	1.48
Female childhood sexual abuse	0-1	1243	.07	-----
Female alcohol use	0-6	1254	.81	1.10
Female drug use	0-1	1262	.10	-----
Female depressed mood	0-24	1269	5.08	4.32
Female education	6-20	1269	12.86	1.96
Female unemployed	0-1	1241	.24	-----

Notes: The weighted mean is based on the imputed sample size (n=1269) after 10 imputations. MPV=male-perpetrated partner violence. FPV=female-perpetrated partner violence.

Appendix E: Descriptives for Proxies of the CRP Predicting Disagreement

Variables	Range	N	Weighted Mean	SD
Dependent Variables				
MPV (Dis)agreement				
Male Yes Perp/Female No Victim	0-1	1269	.04	-----
Male No Perp/Female Yes Victim	0-1	1269	.08	-----
Male Yes Perp/Female Yes Victim	0-1	1269	.03	-----
Male No Perp/Female No Victim	0-1	1269	.85	-----
FPV (Dis)agreement				
Female Yes Perp/Male No Victim	0-1	1269	.13	-----
Female No Perp/Male Yes Victim	0-1	1269	.07	-----
Female Yes Perp/Male Yes Victim	0-1	1269	.09	-----
Female No Perp/Male No Victim	0-1	1269	.71	-----
Independent Variables				
Encoding				
Male depressed mood	0-25	1269	3.86	3.72
Female depressed mood	0-24	1269	5.08	4.32
Female relationship management	0-4	1255	3.00	1.18
Comprehension				
Male relationship satisfaction	1-5	1263	4.66	.73
Female relationship satisfaction	1-5	1264	4.67	.79
Retrieval				
Relationship duration	0-14	1161	3.17	2.24
Male alcohol use	0-6	1242	1.22	1.44
Female alcohol use	0-6	1254	.81	1.10
Male drug use	0-1	1261	.36	-----
Female drug use	0-1	1262	.30	-----
Response Editing				
Male social desirability	1-5	1267	2.30	.98
Female social desirability	1-5	1269	2.33	.97
Male unemployment	0-1	1245	.15	-----
Female unemployment	0-1	1241	.24	-----
Male relationship commitment	1-5	1194	4.55	.94
Female relationship commitment	1-5	1218	4.70	.78
Male masculinity	1-35	1227	21.33	5.70
Male had third person listening	0-1	1269	.37	-----
Female had third person listening	0-1	1269	.30	-----

Notes: The weighted mean is based on the imputed sample size (n=1269) after 10 imputations. MPV=male-perpetrated partner violence. FPV=female-perpetrated partner violence. CRP=cognitive response process.

Appendix F: Coefficients for Table 2

	Male-Perpetrated Partner Violence (MPV)			Female-Perpetrated Partner Violence (FPV)		
	Male Report Perpetration	Female Report Victimization	Either Report MPV	Male Report Victimization	Female Report Perpetration	Either Report FPV
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Couple Characteristics						
Dating[a]	0.61	0.42 *	0.56 †	0.75	0.45 **	0.55 **
Married[a]	0.50	0.64	0.61	0.69	0.73	0.72
Relationship duration	1.33 ***	1.14 †	1.20 **	1.18 ***	1.11 †	1.13 **
Couple Black[b]	1.41	0.97	1.18	0.97	1.50	1.69
Couple Hispanic[b]	1.49	0.46	0.80	1.07	0.98	0.93
Couple Other[b]	1.05	1.36	1.35	0.49	2.11	1.68
Couple Mixed[b]	0.67	1.06	0.94	1.17	1.41	1.53
Male Characteristics						
Relationship satisfaction	0.82	0.83	0.79 †	0.80	0.90	0.90
Childhood physical abuse	1.00	0.95	0.97	1.06	0.94	0.98
Childhood sexual abuse	2.74	0.98	1.81	1.63	1.59	1.68
Alcohol use	1.12	1.05	0.98	1.06	1.00	1.02
Drug use	2.25 †	0.88	1.19	2.18 **	1.38	1.75 *
Depressive symptoms	1.14 **	1.02	1.06 †	1.11 ***	1.03	1.06 *
Education[c]	1.03	0.89	0.91	1.02	0.87 *	0.88 *
Unemployed	0.82	1.10	0.77	0.84	0.59	0.46 *
Female Characteristics						
Relationship satisfaction	0.77	0.65 **	0.67 **	1.02	0.78 †	0.81
Childhood physical abuse	1.02	1.12	1.11 †	1.01	1.12	1.13
Childhood sexual abuse	3.44 †	1.88	2.43 *	1.85	1.53	1.97 †
Alcohol use	0.92	1.13	1.05	1.02	1.29 **	1.15
Drug use	1.13	1.27	1.07	0.46 †	0.72	0.67
Depressive symptoms	0.99	1.07 *	1.04	1.06 *	1.07 *	1.06 *
Education[c]	0.92	1.04	1.04	0.95	1.03	1.03
Unemployed	0.91	0.56	0.67	1.12	0.60 *	0.79

Notes: N=1269. †p < .10.*p < .05. **p < .01. ***p < .001. All analyses are weighted and account for the complex survey design.

[a]reference category is cohabitation. [b]reference category is White. [c]education in years