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THE ROLE OF CONFLICT-BASED COMMUNICATION PATTERNS IN MALE  
PHYSICAL AGGRESSION TOWARD FEMALE PARTNERS

by

Clyde Myles Feldman

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A Dissertation Submitted to the Faculty of the  
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For the Degree of

DOCTOR OF PHILOSOPHY

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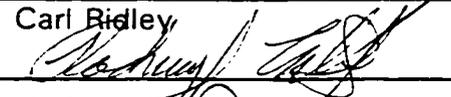
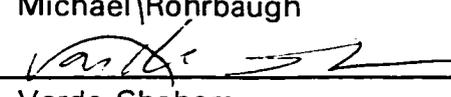
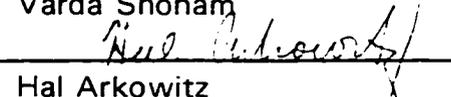
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## DEDICATION

To Rosanne, who saw me through the good times and the bad times giving all the love, nurturing, talent, and energy that one individual could ever share with another.

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## ABSTRACT

The primary purpose of this study was to investigate the association between twenty conflict-based, communication patterns and the level of occurrence (categorical variable) and frequency (continuous variable) of male physical aggression towards female partners. Participants were 280 male volunteers drawn from a community preventative health clinic (n=236) and from a domestic violence monitoring program for misdemeanor domestic violence offenses (n=44). Males reported on nine verbally aggressive, five avoidance/withdraw, and six problem-solving/cooperation communication patterns for both self and partner. The communication patterns included mutual verbal aggression, unilateral verbal aggression, threaten/back down, blame/defend, pressure/resist, mutual avoidance, unilateral avoidance, demand/withdraw, mutual problem-solving, unilateral problem-solving, and net constructive communication (i.e., mutual problem-solving minus mutual verbal aggression). Four groups were formed based upon the occurrence of physically aggressive acts during the last twelve months: (a) completely nonviolent, (b) nonviolent toward partner but violent toward others, (c) 1-5 instances of violence toward partner, and (d) 6 or more instances of violence toward partner. Relationship distress was also examined as a moderator and as distress-nonviolence contrasted with violence. Primary findings were that 19 of 20 communication patterns were significantly associated with low and/or high frequency of physical aggression in comparison to nonviolence. Verbally aggressive patterns contributed most (33%), problem-solving/cooperation patterns contributed the second most (27%), and

avoidance/withdraw patterns contributing the least (13%) to explaining differences in the level of occurrence of physical aggression. The seven strongest communication patterns indicated that physically aggressive relationships had **more** mutual verbal aggression, **more** male and female unilateral aggression, **more** male threaten/partner back down, **less** net constructive communication, **less** mutual problem-solving, and **more** male demand/partner withdraw than their nonviolent counterparts. Relationship distress was *not* found to moderate the relationships between any of the twenty communication patterns and physical aggression. Furthermore, only **five** patterns were found to be *more* characteristic of physically aggressive relationships than distressed, nonviolent relationships (the above seven patterns *excluding* problem-solving and demand/withdraw); the other fifteen were *equally* characteristic of either physical aggression or distress-nonviolence.

## CHAPTER 1

### INTRODUCTION

The past decade has witnessed a heightened public awareness of the frequency of domestic violence and its deleterious effect on individual and family well-being. More than a decade of work by Murray Straus and Richard Gelles (Gelles, 1974; Gelles & Straus, 1979; Straus & Gelles, 1986; Straus & Gelles, 1990; Straus, Gelles, & Steinmetz, 1980) suggests that a person is more likely to be hit or even killed in his or her own home by another family member than anywhere else or by anyone else. Physical violence and abuse between adult partners has received particular attention within the areas of research, practice, and social policy (see Feldman & Ridley, 1995, for overview). The increased attention to adult interpartner violence appears warranted for at least five reasons. First, the direct physical and psychological impact on adult female victims is often severe (Kurz, 1993; Kurz & Stark, 1988; Walker, 1993). Second, the most prevalent pattern of adult domestic violence is one of bilateral violence, with both partners using relatively less severe tactics (e.g., throwing an object, pushing, grabbing, shoving, slapping) (Stets & Straus, 1989, 1990; Straus & Gelles, 1986). Third, both psychological abuse and minor physical forms of aggression, if left untreated, will escalate into more severe or even life-threatening violence (Murphy & O'Leary, 1989; Stets, 1990). Fourth, children who witness interpartner violence and abuse, in contrast to controls, evidence a range of clinical problems in the areas of anxiety, self-esteem, social interaction, problem-solving, and aggressiveness (Alessi & Hearn, 1984; Jaffe, Wolfe, Wilson &

Zak, 1986; Hughes & Barad, 1983; McCloskey, Figueredo, & Koss, 1995; Rosenberg, 1987). Fifth, increased numbers of individuals are now mandated to participate in treatment specifically for domestic violence-related offenses, requiring the treatment community to develop and institute effective, time-limited intervention programs.

Although research on domestic violence between intimate partners has increased exponentially during the past decade (Straus, 1992), it has been noted by family violence researchers that "despite increasing attention from researchers and clinicians, marital violence remains a poorly understood phenomenon" (Holtzworth-Munroe & Hutchinson, 1993, p. 206). In fact, the single most comprehensive review of risk factors of husband-to-wife violence to date (Hotaling & Sugarman, 1986, 1990) found that: (1) only 9 out of 55 risk factors investigated consistently discriminated between violent and nonviolent males, (2) the majority of risk factors had too little empirical data to be reliable (e.g., social stress, dependency, attitudes regarding violence), and (c) a large percentage of the factors which had been sufficiently investigated showed mixed or inconsistent empirical support (e.g., need for power/dominance). The authors found that the most consistent risk markers of husband-to-wife violence for violent men were witnessing/experiencing violence in the family of origin, low assertiveness skills, low self-esteem, low socio-economic status, frequent alcohol use, verbal aggression, status incompatibility (e.g., occupational, religious, educational), and poor relationship adjustment and satisfaction. For female victims of marital aggression, only two consistent risk markers were identified: interparental aggression

in the family of origin and low self-esteem.

A number of domestic violence researchers have noted that most research on determinants and correlates of domestic violence has overemphasized both distal factors (e.g., early exposure to violence) and individual traits (e.g., alcohol abuse, self-esteem), and has substantially underemphasized relational patterns and proximal interaction processes (Feldman & Ridley, 1995; Infante & Wigley, 1986; Lloyd, 1990; Margolin, John, & Gleberman, 1988; Stets, 1992). Specifically, family violence researchers have pointed to the need to examine conflict response and communication patterns in relationships which exhibit partner violence (Cordova, Jacobson, Gottman, Rushe, & Cox, 1993; Jacobson, Gottman, Waltz, Rushe, Babcock, & Holtzworth-Munroe, 1994; Lloyd, 1996; Margolin, John, Ghosh, & Gordis, 1996; Sabourin, 1996). However, relatively few empirical studies of conflict response and communication patterns have been conducted (Feldman & Ridley, 1995). In their review of the field, Feldman and Ridley (1995) suggest two factors that may have contributed to the lack of emphasis and empirical work in this area. First, because of the influence of the most widely used assessment instrument for domestic violence, the Conflict Tactics Scale (Straus, 1979, 1990), it has become almost axiomatic to view domestic violence and abuse, by definition, as representing a continuum of conflict response and resolution strategies, ranging from discussion to assault with a weapon (Steinmetz & Straus, 1974; Straus, 1979). Although there are certainly opposing views, this widespread presumption may have inadvertently precluded full-scale investigation into the role that conflict and specific types of

communication-based conflict response patterns play in relationships where domestic violence exists. A second reason suggested by the authors is that the study of interaction or relational patterns in violent relationships has, at times, been labeled "victim blaming". The implication is that researchers indirectly or directly support the notion that the actions of the abused partner somehow caused the violence, and that the "perpetrator" has no clear responsibility for his actions.

The primary purpose of the proposed study is to examine a range of specific interpersonal communication patterns, in the context of conflict discussions or arguments, and their relationship to the occurrence and frequency of male physical aggression toward an intimate female partner. In an attempt to expand a limited knowledge base and address the limitations of previous research, the proposed study will specifically:

1. Examine a number of specific, conflict-based communication patterns which assess the behavior of partners in terms of both mutual (e.g., we are both verbally aggressive) and unilateral (e.g., I blame her, but she does not blame me) types of communication patterns, and in terms of both symmetrical (e.g., aggressive behavior) and asymmetrical (e.g., demand/withdraw behavior) types of communication patterns. The large majority of the patterns to be examined have not heretofore been empirically investigated. The specific set of communication-based patterns to be investigated are: mutual verbal aggression, unilateral verbal aggression, blame/defend, threaten/back down, pressure/resist, mutual avoidance, unilateral avoidance, demand/withdraw, mutual problem-

- solving, unilateral negotiation, unilateral emotional expression.
2. Examine the individual and aggregate level contribution of three categories of conflict-based communication patterns: Verbal Aggression, Problem-solving/Cooperation, and Avoidance/Withdraw. The relative importance and role of each category of communication pattern can have significant implications for identifying and understanding core dynamics and interactional styles in the etiology and maintenance of domestic violence. Additionally, they are important in helping to clarify what to emphasize in conflict and communication-based treatment programs for domestic violence.
  3. Examine and clarify the role of marital distress in the relationship between conflict-based communication patterns and physical aggression. A number of family violence scholars have specifically pointed to the need to examine the level of distress when studying factors presumed to be characteristic or predictive of interpartner violence and abuse (Feldman & Ridley, 1995; Lloyd, 1990, 1996; O'Leary, 1988). Unfortunately, many studies have traditionally not measured distress at all, or as O'Leary (1988) notes, have essentially confounded distress and aggression by examining the distressed-aggressive marriage in comparison to the nondistressed-nonaggressive control. Therefore, as will be discussed in the rationale section, it is currently unclear what specific role marital distress plays in interpartner aggression and in what way it may moderate the relationship between conflict-based communication patterns and physical aggression. It is also currently unclear which conflict-based communication patterns are

characteristic or predictive of physical aggression, rather than marital distress alone. In both cases, it is necessary to measure violence and distress as distinct dimensions, unconfounded. The current study will assess distress as a separate metric measure and will address two aspects of the role of relationships distress. First, the study will determine how the relationship between specific communication patterns and physical aggression may change as a function of level of distress, based upon an explicit analysis of the interaction of distress and each communication pattern. Second, the study will determine how physically aggressive relationships differ from distressed, but nonaggressive relationships. That is, the extent to which certain communication patterns are particularly characteristic of physical aggression in contrast to being equally characteristic of either physical aggression or distress, nonaggression.

4. Assess conflict-based communication patterns via a self-report method which allows for patterns to be representative of a relatively longer time frame, and across multiple conflict discussions, in contrast to the observational method of assessing a single, 10-15 minute, predefined conflict discussion typical of studies in this area.
5. Assess the level (i.e. frequency) of physical aggression, as well as the occurrence or nonoccurrence of physical aggression between adult partners. Studies have typically not attempted to predict the frequency or severity of violence, but only its occurrence or nonoccurrence. Therefore, research efforts have typically not discriminated between an unusual, single instance and a repeated, frequent

occurrence, or between minor and severe consequences of violence. As a direct consequence, while substantial information exists on correlates and risk factors of the occurrence of violence, there is limited knowledge of the predictors of frequency and severity of violence and abuse.

6. Utilize a community sample, in contrast to a primarily clinical sample. The vast majority of studies of interpartner violence have employed a clinical sample, whose limitations include external validity issues of generalizability, as well as internal validity issues such as the effects of being in treatment, and self-selection biases.
7. Utilize a sample of individuals who are in a serious, cohabitating relationship in addition to individuals who are legally married. The vast majority of studies of interpartner violence have employed samples of married individuals only, often older and established. Having a more diverse and balanced sample is important for several reasons. First, is evidence from a number of studies that the frequency and severity of partner violence among nonmarried cohabitating partners parallels or exceeds that of marital partners (Stets & Straus, 1989; Straus & Gelles, 1986; Yllö & Straus, 1981). Second, is evidence that in regard to age, younger individuals, between ages 18 and 30, have higher rates of aggression than any other age group, and the incidence decreases steadily with age. Third, there is a need to assess and be able to generalize results to the large numbers of intimate partners who are cohabitating, but are not legally married.

In the next chapter, four topics will be presented and discussed. First, the rationale for studying conflict response and communication patterns in domestic violence will be presented. Second, the rationale for examining marital distress as a potential moderator of this relationship will be presented. Third, the common types of communication-based, communication patterns derived from the literature will be presented. Finally, the results of empirical studies which have directly examined the role of conflict-based communication patterns in domestic violence between intimate partners will be presented.

## CHAPTER 2

### LITERATURE REVIEW

#### Rationale

#### The Rationale for Studying Conflict-Based Communication Patterns in Interpartner Violence

The rationale derives from three areas of inquiry. The first is a large body of literature which has examined the importance of a number of marital conflict interaction patterns to marital distress. The second are empirical studies demonstrating the efficacy of treatment programs for domestic violence which emphasize conflict management and communication/problem-solving training. The last is conceptual and empirical work in the fields of both interpersonal conflict and interpersonal communication. Each area is discussed below.

First, within the domain of research on marriage and close relationships over the last twenty years, there has been an increasing focus upon patterns of interaction between partners and on the mutual influence processes associated with these patterns. Early on, many prominent researchers suggested that close relationships (i.e., marriage and cohabitation), in contrast to other social relationships, are characterized by an interdependence in which individuals have strong, frequent, and diverse impact on each other (i.e., mutual influence) (Bersheid & Peplau, 1983; Kelley, 1983). While interdependence does not necessitate conflict, it does appear to make the occurrence of conflict, and possibly domestic violence, more likely because individual and relational outcomes are more closely tied, and these outcomes are often more

critical (e.g., divorce). One fruitful line of empirical research embracing this focus, has been the search for dysfunctional interaction patterns which are predictive of destructive outcomes, specifically marital distress and dissatisfaction. A large body of primarily observational research investigating the role of conflict-based communication processes in marital distress and satisfaction has consistently found that the amount of conflict and arguing, and the types, patterns, and timing of interactions directly contribute to the onset and maintenance of marital distress (Gottman, 1994; Jacobson & Gurman, 1986; Markman, Renick, Floyd, Stanley & Clements, 1993; Markman, Stanley, & Blumberg, 1994). Three major findings derived from this large body of studies are relevant here. First, distressed couples, as compared to nondistressed couples, have a much greater tendency to reciprocate negative behaviors, in a relatively immediate fashion, resulting in sequential chains which escalate aversive behavior. Second, these distressed couples use more aversive control to effect behavior change in partners than do nondistressed couples. Third, these couples employ verbal aggression significantly more often as a conflict response style than do their nondistressed counterparts. This body of research also suggests that conflict tends to escalate for several reasons. Couples tend to "lock in" to dominant reciprocal response patterns, such as cross-complaining and invalidation loops (Gottman, 1979). Arguments tend to progress through three levels of escalation, the issue level, the personality level, and the relationship level, each more difficult to address and contain (Stuart, 1980). There is a high probability of retaliation in order to save face and prevent future attacks, particularly when the

receiver believes the initial attack was intentional and illegitimate (Felson, 1984). One or both individuals may not have the communication and/or problem-solving skills necessary to resolve conflict cooperatively (Babcock, Waltz, Jacobson, & Gottman, 1993; Infante, Chandler, & Rudd, 1989). The negative physiological and affective arousal of one partner, generated in verbally aggressive interactions, becomes mirrored in the other partner (Levinson & Gottman, 1983).

The programmatic, empirical work of Gottman (1994) underscores the important role of conflict-based communication patterns in the deleterious outcomes of marital distress and divorce. Gottman has recently developed a typology of marital couples based on direct observation of conflict-based communication, specifically affect, problem solving, and types of influence attempts. His typology defines two broad couple types, labeled **nonregulated** and **regulated**, based upon the mechanism they employ to adapt to conflict and balance positive and negative interactions in a marriage. The **nonregulated** couple type was associated with significantly lower marital satisfaction and higher risk of marital dissolution than the regulated couple type. As compared to regulated couples, **nonregulated** couples were characterized by four interactional processes: complaining/criticizing, contempt, defensiveness, and stonewalling. These processes were found to be related to each other in a cascading fashion, in that the first increases the likelihood of the second which increases the likelihood of the third, etc. Two subtypes of **nonregulated** couples are *Hostile* and *Hostile/Detached*. Both evidence episodes of reciprocated attack and defensiveness, but the latter had greater negativity, contempt, disgust, and a greater detachment.

Gottman's typology defines three subtypes of **regulated** couples based upon the mechanism they employ to adapt to conflict and balance positive and negative interactions in a marriage. These subtypes of **regulated** couples are: *volatile* conflict engagers, *validating* conflict engagers, and conflict *minimizers*. *Volatiles* are highly emotional, confrontive, and attempt to ferret out the real honest truth about feelings. They express a lot of negativity, but offset it with a lot of positivity. *Validators* are moderately emotional, carefully picking and choosing when to disagree and confront conflict, and conveying some measure of support when one partner expresses negative feelings. *Minimizers* display relatively low affect, appear to minimize the importance of disagreements, and balance small amounts of negativity with small amounts of positivity. It is important to note that couples in the minimizing group did not overtly avoid conflict. They did discuss differences, but persuasion was minimal, and they often agreed to accept the lack of a solution rather than face the discord of argument. Overall, Gottman's empirical work on typologies and other lines of research have supported three generalized findings regarding conflict-based communication patterns. First, conflict management strategies and outcomes are highly predictive of distress, dissatisfaction, and divorce. Second, distressed relationships employ verbal aggression significantly more often as a conflict response style. Third, the balance of positive to negative exchanges is a highly significant factor contributing to long-term marital satisfaction.

The second rationale for studying conflict-based communication patterns in interpartner violence derives from the treatment literature on domestic violence. The

vast majority of treatment programs for domestic violence are behaviorally-based, social learning approaches which emphasize conflict management/containment techniques (e.g., de-escalation tactics), communication skills development (expressive and receptive), and problem-solving/ negotiation strategies as core treatment components (Arias & O'Leary, 1988; Feldman & Ridley, 1995; Pirog-Good & Stets-Kealey, 1985; Rosenfeld, 1992; Tolman & Bennett, 1990). In a review of outcome studies evaluating these group-based, behavioral, social learning approaches for males, Feldman and Ridley (1995) reported that they did significantly reduce the occurrence and level of physical violence toward an adult intimate partner. Specifically, during the first six to twelve months post-treatment, between one-half and two-thirds of participants appear to cease acts of interpartner violence completely, while others substantially reduce their frequency of a range of aggressive acts. Moreover, limited evidence suggests that the reduction in violent behavior was associated with positive changes in level of conflict, arguing, and anger. The authors caution, however, that these types of programs do not terminate domestic violence in many cases, nor do they terminate more subtle psychological forms of abuse.

The third rationale draws from both the empirical and conceptual work within the fields of interpersonal conflict and interpersonal communication. This work has bolstered the view among a number of prominent family violence scholars that a variety of conflict-based communication processes may play a critical role in domestic violence. Interpersonal conflict and communication scholars have focused attention on the social nature of intrafamily violence and the interdependent nature of the

relationship between "perpetrator" and "victim", and have emphasized individual and dyadic level conflict management processes (Hotaling & Sugarman, 1990; Infante, Chandler, & Rudd, 1989; Lloyd, 1990; Roloff, 1996; Straus, Gelles, & Steinmetz, 1980). Gelles and Straus (1979) have suggested that several inherent characteristics of families place their members at greater risk of experiencing intense levels of conflict and the occurrence of domestic violence and abuse. These characteristics include: (a) a high amount of time spent together, (b) a wide range of activities and interests requiring choices which may impinge on others, (c) a strong emotional investment and involvement in each other, (d) age and sex diversity, (e) a high level of privacy insulating families from both social control and external assistance, (f) biologically ascribed roles such that functions and status are not necessarily based on competencies or interests, (g) the implicit right of parents and spouses to influence and sanction behavior, and (h) the normative approval of the use of force to ensure compliance. Interpersonal conflict theories view individuals and dyads as seeking to further their own interests and to resolve inevitable conflicts of interest. In the view of most conflict scholars (Hocker & Wilmot, 1991; Peterson, 1983; Rands, Levinger, & Mellinger, 1981; Rausch, Barry, Hertel, & Swain, 1974), however, it is not the existence of conflict, but the way in which conflict is managed and responded to that is the critical component of the process. Conflict responses include a broad range of overt behavioral reactions to, methods of resolving, or ways of handling conflicts of interest. Conflict responses include behaviors which may serve to resolve, maintain, or escalate conflicts of interest. From this perspective, domestic violence can be

viewed as a powerful mode of advancing one's interests or of processing conflict when other modes of pursuing individual or group interests break down due to faulty conflict management processes, skills, or options. Furthermore, interpersonal conflict theories generally posit that conflict avoidance or withdrawal is dysfunctional for the long-term course of a relationship, largely because conflicts of interest do not get resolved. Markman and Kraft (1989) have argued that unresolved issues fester and become more emotionally charged over time. As the number of unresolved issues and the volatility of issues increase, it is likely that the couple becomes less tolerant of, and more sensitive to, disagreements.

A number of interpersonal communication researchers suggest that verbal aggression acts as a catalyst for physical aggression, although verbal aggression is seen as a necessary, but not sufficient cause of physical aggression (Infante, Chandler, & Rudd, 1989; Infante, Sabourin, Rudd, & Shannon, 1990; Sabourin, 1995; Straus & Sweet, 1992). Indeed, there is increasing empirical evidence that verbally aggressive communication and physical aggression are strongly related, with violent marriages characterized by significantly more frequent verbal aggressiveness than either distressed-nonviolent or nondistressed-nonviolent, for both husbands and wives (Infante, 1987; Murphy & O'Leary, 1989; Sabourin, Infante, & Rudd, 1993; Stets, 1990; Straus, 1974). Specific results of these studies will be reviewed in the next section. These interpersonal communication researchers suggest that a verbally aggressive attack may be fundamentally similar to a physically aggressive attack in intending to cause deliberate pain, with character attacks perceived as more catalytic

than other types of verbally aggression communication. The victim of verbal aggression may feel that physical force is the only way to defend his or her self-image and to discourage a future attack. This may be particularly likely when skills for constructive management of conflict are lacking. From a relational communication perspective, there is evidence that verbal aggression may act as a catalyst because abusive couples, unlike nonabusive couples, appear to counter their partners' verbal aggression with verbal aggression, while withholding supportive communication responses (Cordova, Jacobson, Gottman, Rushe, & Cox 1993; Sabourin, 1995). A pattern of escalating negative symmetry and negative reciprocity emerges, whereby both individuals become linked in high physiological arousal and in domineering, relational counter-control patterns.

Infante, Chandler, and Rudd (1989) directly tested a skill deficiency model of interspousal violence which proposes that when a person does not have the verbal skills necessary for dealing with social conflict constructively (i.e. motivation and competency to "talk through issues"), s/he will more often resort to verbal aggression, increasing the probability of a violent interaction. Results indicated that both husbands and wives in violent marriages were more verbally aggressive, and demonstrated more skill deficits in presenting and defending positions on controversial issues, than individuals in nonviolent marriages. Furthermore, they found a moderately strong relationship between level of skill deficit and perception of spouse's verbal aggressiveness, further supporting the notion that verbal aggression may be a catalyst for physical aggression. A small number of empirical studies have also

consistently found that deficits in assertiveness characterize physically aggressive male spouses, relative to controls (Dutton & Strachen, 1987; Maiuro, Cahn, & Vitaliano, 1986; Rosenbaum & O'Leary, 1981). Assertiveness, as operationalized by most studies, refers to a style of communicating openly and directly in the face of some anticipated disapproval or conflict, and is therefore directly related to a broader set of conflict-based communication processes within the dyad. There are several specific findings about assertiveness and domestic violence across studies. First, only deficits in spouse-specific assertive behavior, rather than in general assertive behavior, are characteristic of violent male partners. Second, skill deficits are particularly notable in the area of request-making behavior, including the expression of needs and wants in a positive fashion. Third, assertiveness deficits are significantly related to the amount of anger and aggression that the men expressed. Fourth, low levels of spouse-specific assertiveness typically differentiate distressed-violent and distressed-nonviolent males from nonviolent-nondistressed males, but not typically from each other.

Roloff (1996) has proposed a relatively complex catalyst hypothesis specifying the conditions under which coercive communication patterns would lead to physical aggression. He has described four interacting conditions or factors. The first condition involves attacks on an individual's identity which are viewed as illegitimate, unmitigated, and central to one's self-concept, triggering physical retaliation in order to humiliate the attacker, prevent future face attacks, and force the attacker to make amends. The second condition involves noncompliance and resistance of a partner to

an individual's initial nonaggressive social influence attempts which are viewed as a challenge to one's sense of control. The third condition involves the inhibiting factors (e.g., societal norms, police intervention) and disinhibiting factors (physically stronger, skilled at using weapons) operating on an individual's inherent ability to physically overpower another. The last condition involves the high degree of anger over a prolonged period of time generated in the context of verbally aggressive arguments.

#### The Rationale for Studying the Role of Marital Distress

A number of family violence scholars have specifically pointed to the need to examine relational distress when studying factors presumed to be characteristic or predictive of interpartner violence and abuse (Feldman & Ridley, 1995; Lloyd, 1990, 1996; O'Leary, 1988). Marital distress has typically encompassed two primary dimensions: satisfaction and adjustment. Marital satisfaction has typically been defined in terms of general satisfaction, happiness, intimacy, and perceived marital quality, while marital adjustment has typically been defined in terms of communication interaction quality, sexual functioning, and type and quantity of shared activities. Not surprisingly, research has shown that there is more marital distress and less marital satisfaction in homes where violence has occurred. Hotaling and Sugarman (1986), in a comprehensive review of risk markers for husband-to-wife marital violence, found marital distress to be a consistent risk marker for marital violence based upon five of six studies which found a significant positive relationship with violence. Indeed, most studies of interpersonal aggression in close relationships

have assumed that distress is a necessary condition for violence. O'Leary (1988) attributes this assumption to work that essentially confounds distress and aggression by exclusively examining the distressed-aggressive marriage in comparison to the nondistressed-nonaggressive control. Using more sophisticated studies which measure violence and distress as separate dimensions, O'Leary and his colleagues have demonstrated that a significant proportion of violent couples are not maritally distressed, which points to a more complex picture of the relationship between marital distress and interpersonal violence. In a longitudinal study of aggression over the first 30 months of marriage (O'Leary, Barling, Arias, Rosenbaum, Malone, & Tyree, 1989), the authors found that only 30% of wives of stably aggressive husbands and 24% of husbands of stably aggressive wives fell at or below a clinical cutoff for marital distress using the Short Marital Adjustment Test (SMAT, Locke & Wallace, 1959). This represented, however, a significantly higher proportion of marital distress than among the stably *nonaggressive* men and women (11%, 9%). In a separate, but similar study, Murphy and O'Leary (1989) found that neither men's nor female partners' reported level of marital dissatisfaction, (based on the SMAT) were predictive of first instances of physical aggression at 6, 18, and 30 months into marriage. Finally, in a study which analyzed over 10,000 white males, Pan, Neidig, and O'Leary (1994) found that for every 20% increase in marital discord, based upon the Dyadic Adjustment Scale (Spanier, 1976), the odds of being mildly aggressive increased by 102%, while the odds of being severely aggressive increased by 183%. Furthermore, they found that for every 20% increase in discord there was a 34%

increase in the odds of using severe tactics.

In order to assess which conflict-based communication patterns are characteristic or predictive of physical aggression, rather than marital distress alone, it is necessary to measure violence and distress as distinct dimensions, unconfounded. Furthermore, in order to assess how distress may moderate the relationship between certain conflict-based communication patterns and physical aggression, an explicit analysis of the interaction of distress and specific communication patterns on physical aggression must be conducted. Recent empirical studies have attempted to address the issue of marital distress by utilizing designs which employ at least three comparison groups: distressed-violent, distressed-nonviolent, and nonviolent-nondistressed (e.g., Babcock, Waltz, Jacobson, & Gottman, 1993; Holtzworth-Munroe & Hutchinson, 1993). Lloyd (1996) has specifically noted that while these three-group designs are an improvement, limitations remain. "Some findings that are viewed as important differences between aggressive and nonaggressive couples may be confounded by the comparison of nondistressed-nonaggressive couples with distressed-aggressive couples or by study designs that use aggressive couple groupings that are significantly lower in marital adjustment than the distressed-nonaggressive group or both" (p. 181). In several studies (Lloyd, 1990, 1996), Lloyd has included a fourth comparison group, violent-nondistressed, and found that certain factors discriminated between the violent-*distressed* and violent-*nondistressed* groups. Other factors, however, were equally characteristic of both violent groups in comparison to the nonviolent controls. In her concluding remarks, Lloyd (1990) states that "considerable doubt has been raised as

to the necessity of distress in a violent marriage...." (p. 280), and that "the combination of distress and violence appears to be a particularly potent one" (p. 282). Unfortunately, marital distress is still not measured in many studies of interpersonal violence and abuse. Moreover, it is currently unclear what the relationship between distress and physical aggression is and what moderating role distress may play in the relationship between conflict and violence.

The next section will describe and review the most common types of conflict response and communication patterns derived from the literature.

#### Types of Conflict-Based Communication Patterns

Prior to reviewing those studies directly addressing conflict and communication interaction patterns among domestically violent individuals, it is useful to describe three broad types of conflict-based communication patterns which have been identified and studied in the marital conflict literature: verbal aggression, cooperation, and avoidance. As mentioned earlier, the current investigation will examine several different patterns representative of each of these three broad types.

#### Verbal Aggression

Verbal aggression (Infante, Chandler & Rudd, 1989; Stets, 1990; Straus, 1974; Straus & Sweet, 1992) has also been called "symbolic aggression" (Cloven & Roloff, 1993; Straus & Sweet, 1992), "attack" (Rands, Levinger, & Mellinger, 1981), "coercive communication" (Roloff, 1996), "verbal coercion" (Frieze & McHugh, 1992), "competition" (Fitzpatrick, 1988), "distributive strategies" (Sillars, 1980), and "destructive conflict" (Deutsch, 1969). Aggressive messages appear to function in

two ways, as an attack on a person's self-concept and an attack on an individual's position on an issue (Infante & Wigley, 1986). In the former, aggression is an attempt to inflict psychological pain, thereby resulting in the receiver feeling less favorable about self. In the latter, aggression may involve coercive attempts to impose one's preferred solution on the other party (Fitzpatrick, 1988). Specific aggressive conflict tactics have included attacks on character, competence, appearance, and background, as well as ridicule, profanity, and threats (Infante & Wigley, 1986). Verbal aggression is somewhat of a misnomer in that nonverbal emblems (e.g., raising the middle finger), and negative affect transmitted through touch, voice, distance, eye contact, facial expression, body gestures, and position often accompany the verbal stream as nonverbal indicators of aggression.

### Cooperation

Cooperation has also been labeled "problem solving" (Jacobson & Gurman, 1986; Gottman, 1994), "compromise" (Rands, Levinger, & Mellinger, 1981), "negotiation" (Christensen, 1988), "productive conflict" (Deutsch, 1969), "collaboration" (Thomas, 1976), and "integrative strategies" (Sillars, 1980). Cooperation involves responding to conflict as a common problem in which both sides have a joint interest in reaching a mutually satisfying solution (Deutsch, 1969). Galvin and Brommel (1986) have identified four components of effective problem solving. First, information is exchanged and all parties have equal time to express their points of view and there is a recognition of the legitimacy of each side's interests. Second, feelings are openly expressed. Third, people listen to each other

without frequent interruptions. Fourth, the discussion remains focused on the topic at hand, and does not expand to include other conflict areas.

The communication skills and processes most often implicated in cooperative conflict management have been identified through empirical work on the role of constructive communication in marital satisfaction, and through clinical research and treatment. Four core clusters of communication behavior undergird the cooperative strategies of negotiation and problem-solving. These are: (a) active listening, (b) positive feeling expression, (c) negative feeling expression, and (d) request making. The work of Bolton (1979) and others on listening suggests that active listening is a proactive process which has at least six components. The first involves a commitment to listen, physical and mental readiness, and the willingness to let the other person complete a message before interrupting to speak. The second involves observing or physically orienting toward and attending to the speaker. The third involves acknowledging or paraphrasing and providing feedback that indicates an accurate reception of the message. The fourth involves encouraging or inviting the speaker to continue. The fifth involves clarifying or asking for more information in order to reduce confusion. The last component involves validation, or promoting acceptance of the legitimacy of a person or an opinion, without necessarily expressing agreement. Positive expression includes the communication of affection and caring, praise and compliments, and appreciation. Negative feeling expression includes communication of negative feelings that is prompt, focused on behavior rather than personality, and takes the form of either "feeling-because" statements (Jacobson & Margolin, 1979) or

uses the X-Y-Z formula ("When you do X in situation Y, I feel Z") (Gottman, Notarius, Gonso, & Markman, 1976). Request making should be prompt, positive, specific, use "I" not "you" language, use "how" or "what" rather than "why" questions, and reward positive compliance.

### Avoidance

Avoidance has also been referred to as "withdrawal" (Margolin, Fernandez, Gorin, & Ortiz, 1982), "passive-indirect strategies" (Sillars, 1980) and "covert destructive conflict" (Galvin & Brommel, 1986). A partner who employs avoidance techniques is presumed to be attempting to defend against direct confrontation with the other. Avoidance involves any behaviors designed to move the discussion away from the matter at hand (Fitzpatrick, 1988). In addition, avoidance tactics typically convey little information to the partner. Two commonly mentioned communication tactics include denial and disqualification (Galvin & Brommel, 1986). Denial is a statement asserting that there is not a problem, which is often accompanied by nonverbal signals that contradict the verbal message. Disqualification is similar to denial and refers to the expression of negative feelings that are then discounted in some way, such as attributing feelings to innocuous or external causes. The intent is to hide or minimize the emotion. Overall, most scholars consider habitual avoidance to represent a destructive disengagement strategy which precludes resolution of relationship problems due to a lack of tolerance for conflict (Gottman, 1994; Peterson, 1983; Vuchinich, 1987). A number of both observational and self-report studies have found that avoidance of conflict and communication is more

characteristic of distressed than nondistressed, marital groups, and is more strongly correlated with marital dissatisfaction (Christensen & Shenk, 1991, Gottman, 1994; Gottman & Krokoff, 1989). However, avoiding behaviors may serve a constructive disengagement function when they are specifically used to postpone discussion of a conflict to a time when resolution is more likely to occur, or when used to terminate a verbally aggressive escalation cycle (Jacobson & Margolin, 1979). Raush, Barry, Hertel and Swain (1974) have suggested that there are two primary kinds of patterns of avoidance: symmetrical and asymmetrical. In the former, there is a joint "contract" between partners to avoid disagreement. In the latter, one person is typically the avoider of conflict, while the other is the pursuer. The latter asymmetrical pattern has been discussed in the clinical literature on marriage and has been referred to by various labels. In the pursuer/distancer pattern (Fogarty, 1976), the pursuer "chases" the distancer, who retreats. In the rejection/intrusion pattern (Napier, 1978), the "abandoned" partner clasps tightly for security, while the "imprisoned" mate retreats. In the demanding/withdrawn pattern (Wile, 1981), the couple struggles with the withdrawal of the one and the pressure for contact by the other. In a series of empirical studies on this interaction pattern, Christensen and his associates (Christensen, 1987a, 1988; Christensen & Heavey, 1990; Christensen & Shenk, 1991) have operationalized this pattern as demand/withdraw, in which one spouse pressures, demands, complains, and criticizes, while the partner withdraws with defensiveness and passive inaction. These studies have consistently revealed gender differences in conflict behavior such that wife-demand/husband-withdraw

interaction: (a) is typically more likely than husband-demand/wife-withdraw, and (b) is far more characteristic of distressed than nondistressed, marriages. The authors also tested two explanations for why women demand and men withdraw in conflict: a gender-based, personality/individual difference explanation, and a situational differences explanation. They found evidence that both processes appear to be operating. Overall, females tend to be more demanding and males more withdrawing in conflict. However, there is a tendency to be in the demander role when the focus is on a desired change in one's partner, and to be in the withdrawer role when the focus is on a partner's desired change in you.

#### Empirical Studies of Conflict-Based Communication Patterns in Physical Aggression

A limited number of empirical studies have been conducted which bear directly on the role of conflict response and communication patterns in violence between partners. They can best be organized into: (a) observational studies investigating the interaction patterns of domestically violent and nonviolent couples in a live discussion of a problem topic, (b) self-report studies investigating only verbally aggressive communication among domestically violent and nonviolent individuals, and (c) self-report studies investigating a range of specific types of conflict-based communication patterns among domestically violent and nonviolent individuals.

#### Observational Studies of Conflict-Based Interaction Patterns

In a set of three related studies by Margolin and associates (Burman, John, & Margolin, 1992; Burman, Margolin, & John, 1993; Margolin, John, & Gleberman, 1988), the authors observed and coded the interaction patterns of couples during a

problem-solving discussion. Couples were first classified as physically aggressive (e.g., threw something at partner, used a gun/knife), verbally aggressive only (e.g., insulted or swore at partner), withdrawing (e.g., sulked and/or refused to talk about it, stomped out of the room/house), or nonaggressive-nondistressed, based upon self-report items from the Conflict Tactics Scale. Across studies, the authors found that husbands in the physically aggressive group exhibited significantly more negative voice qualities, more nonverbal signs of irritation and frustration, and experienced more self-reported anxiety and feelings of being attacked than partners in any other group. Sequential analyses demonstrated that physically aggressive couples, as compared with verbally aggressive and withdrawing couples, displayed interaction patterns that specifically increased the probability of further verbal aggression. Specifically, wives increased their verbally attacking behavior (e.g., threat, blame, disapproval, rejection) in response to both verbally attacking and verbally defensive behavior (e.g., self-defense, disagree, yes/but, distract) on the part of their husbands. Husbands tended to increase their verbally defensive behavior in response to their wives' verbal attack behavior, but did not necessarily decrease verbally hostile behavior. Moreover, these couples were characterized by a reciprocity of self-reported anger/contempt which was both stronger and longer lasting than that of the other two conflictual groups. In contrast, among couples in the verbally aggressive only and withdrawing groups, verbally attacking behavior was more often met with defensive, rather than offensive-attacking behavior, on the part of partners. Withdrawing couples specifically tended to reciprocate intellectualizing behavior,

(e.g., giving a morality lesson, instructing the other person what to do), which the authors suggest may represent a way of distancing oneself from overt conflict. Finally, couples in the nonaggressive-nondistressed group were significantly less likely to attack their spouses or to defend themselves, and were more able to exit negative interaction cycles quickly when they occurred. Additionally, the nonaggressive-nondistressed group made more positive statements (e.g., affection, interest, joy, non-sarcastic humor), more neutral statements, and had higher levels of positive gestures/touch than the other three groups.

Two related studies by Jacobson and associates (Cordova, Jacobson, Gottman, Rushe, & Cox 1993; Jacobson, Gottman, Waltz, Rushe, Babcock, & Holtzworth-Munroe, 1994) have also provided information about the interactional patterns of domestically violent, nonviolent-distressed, and nonviolent-nondistressed couples, based upon observation of conflict discussions. Three key findings add support to those noted earlier. First, domestically violent couples were more aversive (e.g., criticize, put-down, disagree) and more angry than either distressed or nondistressed nonviolent controls. Second, domestically violent couples were significantly more likely to engage in negative reciprocity than either their distressed-nonviolent or nondistressed-nonviolent counterparts. Third, wives of domestically violent men were as verbally aggressive toward their husbands as husbands were toward their wives. One of the two studies (Cordova, Jacobson, Gottman, Rushe, & Cox 1993) also found that domestically violent couples were also less often facilitative (e.g., agree, approve, smile/laugh, paraphrase/reflect, positive solution) than either the distressed

or nondistressed nonviolent controls. The study by Jacobson, Gottman, Waltz, Rushe, Babcock, and Holtzworth-Munroe (1994) additionally investigated patterns of interaction based upon self-report data collected from both partners. Based upon structured interviews regarding key violent and nonviolent disputes, husband violence was found to escalate in response to violent, verbally defending or withdrawing behavior on the part of wives. In contrast, wife violence escalated only in reaction to violence or emotional abuse on the part of husbands.

A final observational study by Sabourin (1995) examined the conversations of physically abusive and nonabusive couples while they completed a discussion on a topic that was not biased toward conflict. Similar to other interactional studies above, she found a pattern of negative reciprocity among the abusive couples, whereby both husband and wife were equally likely to initiate and respond with statements of disagreement, disapproval, and nonacceptance and less likely to respond with supportive statements, as compared with nonabusive couples.

#### Self-Report Studies Investigating Verbally Aggressive Communication

Four studies have investigated the relationship between verbal aggression and interpersonal violence (Infante, 1987; Murphy & O'Leary, 1989; Sabourin, Infante, & Rudd, 1993; Straus, 1974). In a seminal study of the role of verbal aggression in marriage, Straus (1974) tested a venting theory of verbal aggression which posited that expression of verbal aggression would *reduce* the incidence of physical aggression because of a catharsis effect. Based upon self-report data from 385 couples who recalled an aggressive experience, he found that physical aggression in fact *increased*

at a more rapid pace with increases in levels of verbal aggression, suggesting that verbal aggression acted as an escalator toward further aggression. Infante (1987) measured verbal aggressiveness (e.g., insults, ridicule, threats, verbal attacks on character, competence, background, and appearance) among violent and nonviolent spouses and found that violent marriages were characterized by more frequent verbal aggressiveness than either distressed or nondistressed, nonviolent marriages, for both husbands and wives. Sabourin, Infante and Rudd (1993) measured verbal aggressiveness among violent, nonviolent-distressed, and nonviolent-nondistressed couples during the most recent violent (violent group) or nonviolent dispute (nonviolent groups). The authors found that the greater amount of verbal aggression, and greater degree of reciprocity of verbal aggression, differentiated the disputes of violent couples from the disputes of nonviolent-distressed and nonviolent-nondistressed couples. In one of the rare longitudinal designs, Murphy and O'Leary (1989) examined verbal aggression (e.g., insults, swearing, did or said something to spite partner) as a longitudinal predictor of first instances of physical aggression during marriage. The authors found that among couples who were nonviolent during the year prior to marriage, the frequency of verbal aggression was predictive of the first occurrence of physical aggression at 6, 18, and 30 months into marriage. More specifically, an individual's own level of verbal aggression, as well as their partner's level of verbal aggression, were both predictive of that individual's own first instances of physical aggression, for both husbands and wives. Generally, the closer in time the verbal aggression was to the criterion instances of aggression, the greater was the

predictive power ( $r$  range = .10 to .42).

#### Self-Report Studies Investigating Additional Communication Patterns

Babcock, Waltz, Jacobson, and Gottman (1993) investigated a specific type of interaction pattern, labelled demand/withdraw (Christensen & Shenk, 1991), among violent, nonviolent-distressed, and nonviolent-nondistressed couples. The pattern was operationalized using a subscale of the self-report, Communication Patterns Questionnaire (Christensen, 1988; Christensen & Sullaway, 1984). The subscale was comprised of three items: (a) man/woman nags and demands while the woman/man withdraws, becomes silent, or refuses to discuss the matter further, (b) man/women tries to start a discussion while the woman/man tries to avoid a discussion, and (c) man/woman criticizes while the woman/man defends self. The authors found that husband demand/wife withdraw pattern was significantly correlated with increased physical aggression ( $r = .40$ ) and psychological abuse ( $r = .35$ ). Moreover, the domestically violent couples were characterized as having *high levels of both* husband demand/wife withdraw and wife demand/husband withdraw interactions. In contrast, the distressed-nonviolent couples exhibited *high levels of only* wife demand/husband withdraw while the nondistressed-nonviolent couples exhibited *low levels of both* types of demand/withdraw.

Three studies by Lloyd and associates (Lloyd, 1990, 1996; Lloyd, Koval, & Cate, 1989) examined a number of specific conflict response strategies and communication patterns of violent couples. In the first study, Lloyd (1990) compared four groups of married couples, violent-distressed, violent-nondistressed, nonviolent-

distressed, and nonviolent-nondistressed, on the use of six conflict response strategies during daily conflicts. These strategies included initiation of discussion (e.g., present the problem, ask partner what's the matter), the use of negotiation (e.g., discuss the issue calmly, talk it over), compromise (e.g., find a mutual solution), verbal attack (e.g., insults, swearing, ranting), avoidance (e.g., avoids the issue, refuse to talk about issue), withdrawal (e.g., stop talking about issue, leave the scene), and apology (e.g., say I'm sorry). Strategies were assessed via semi-structured interviews of husbands and wives separately, and via multiple telephone contacts. First, both husbands and wives within the violent-distressed group reported significantly less use of apology than either the violent-nondistressed or the nonviolent couples. Violent couples, both distressed and nondistressed, reported significantly more verbal attack behavior than nonviolent couples, with 100% of the violent-distressed and 90% of the violent-nondistressed couples reporting the use of it. Distressed couples, both violent and nonviolent, reported less negotiation and compromise strategies than nondistressed couples, both violent and nonviolent. The nonviolent-distressed couples were least likely to initiate discussion, nonviolent-nondistressed couples were most likely, and the two violent groups fell in between. Violent-distressed, violent-nondistressed, and nonviolent-distressed groups each had significantly higher use of withdrawal strategies (e.g., leave the scene, stop talking about the issue) than the nonviolent-nondistressed couples, with 100% of violent-distressed and 85% of the violent-nondistressed and nonviolent-distressed groups reporting using it. Interestingly, the groups did not significantly differ on their use of avoidance strategies (e.g., avoid the issue, refuse to

talk about the issue).

A second study by Lloyd (1996) used similar assessment methods and an identical four-group design, but assessed behavior exhibited in daily conflict interactions at two points in time, 18 months apart. Conflict interaction behavior included a set of negative behaviors (e.g., got angry, dominated a conversation, refused to listen, criticized, ignored, failed to do something when asked) and a set of positive behaviors (complimented, said I love you, apologized, showed physical affection, comforted partner). At time 1, *violent* couples reported significantly more negative interaction behavior than did *nonviolent* couples. Similarly, *distressed* couples reported significantly more negative interaction behavior than did *nondistressed* couples. More specific analyses revealed that the violent-distressed couples reported higher levels of negative interaction than any other group, with no significant difference among the other three groups. Surprisingly, the violent-distressed couples were characterized by levels of positive interaction that were as high as the nonviolent-nondistressed couples. The nonviolent-distressed marriages were characterized by the lowest levels of positive interaction. The study also examined whether negative and positive interaction behavior would discriminate among groups based upon the occurrence of violence from time 1 to time 2, eighteen months apart. Three groups were formed: (a) stable-nonviolent (no physical aggression at time 1 or time 2), (b) stable-violent (physical aggression at both time 1 and time 2), and (c) violent-to-nonviolent (physical aggression at time 1, but not at time 2). Results indicated that the stable-violent marriages were characterized by

significantly higher levels of negative interaction, at both time 1 and at time 2, than either of the other groups. However, they did not significantly differ from the other groups in their level of positive interaction.

The third study by Lloyd, Koval, and Cate (1989) is unusual in that conflict-based communication strategies were examined among violent and nonviolent individuals who were in a serious, nonmarital relationship (serious dating, engaged, or living together). The authors examined the use of three types of communication strategies. They were: (a) *persistence* (e.g., I remind partner of what I want until s/he gives in, I use persuasion, I pout or threaten to cry, I ask my partner to do what I want), (b) *logic* (e.g., I reason with my partner, I state the importance of what I want, I state my needs), and (c) *compromise* (e.g., we negotiate and compromise, we talk it over). Results indicated that the strongest discriminator of violent, as compared to nonviolent, relationships was the persistent and repeated attempt to persuade the partner that one's own way is right. In tandem with additional findings that the violent couples, relative to their nonviolent counterparts, held a stronger belief that it was possible to change the partner and a stronger investment in the relationship, the authors surmised that "it is almost as if these partners are 'trapped' into staying in the current relationship despite the fact that the relationship is a costly one" (p. 135).

### Research Hypotheses and Research Questions

Research hypotheses and questions are presented below and discussed within the context of the empirical findings reviewed above, and the conceptual and theoretical

work reviewed in the rationale section. The research hypotheses and questions are organized into three subsections addressing: (a) verbal aggression conflict-based communication patterns, (b) avoidance/withdraw conflict-based communication patterns, and (c) problem-solving/ cooperation conflict-based communication patterns.

### Verbal Aggression Conflict-Based Communication Patterns

The most consistent findings among the empirical studies reviewed above are in regard to verbal aggression as a conflict-based communication pattern. The first consistent finding is a higher frequency of verbal aggression on the part of both husbands and wives in relationships where physical aggression has occurred, in comparison to either distressed or nondistressed relationships where physical aggression has not occurred. Rates of verbal aggression were similar for husbands and wives in physically aggressive relationships. The second consistent finding is a greater reciprocity of verbal aggression (mutual verbal aggression) between individuals in relationships where physical aggression has occurred, in comparison to either distressed or nondistressed relationships where physical aggression has not occurred. Limited evidence also suggests that the pattern of reciprocity is one in which verbal aggression is used to counter both verbally attacking (e.g., threat, blame) and verbally defending behavior (e.g., self-defense, disagree, yes/but, distract) on the part of both husbands and wives. In contrast, nonviolent couples appear to use verbal aggression less often and, when it is used, couples more often counter verbal aggression with either verbally defending and/or verbally withdrawing behavior. These studies also suggest that during conflict-based communication interactions,

individuals in relationships where physical aggression has occurred appear to experience feelings of anger, frustration, and contempt that are both stronger and longer lasting than their nonviolent counterparts. The two longitudinal studies reviewed also provide evidence that verbal aggression may be characteristic of relationships which become physically aggressive at some later point in time, as well as those which exhibit stable, repeated episodes of aggression.

These empirical findings are consistent with conceptual work in the fields of marital distress, interpersonal conflict, and communication discussed earlier. From the perspective of interpersonal communication, in particular, verbal aggression appears to act as a catalyst for physical aggression, although verbal aggression is seen as a necessary, but not sufficient cause of physical aggression (Infante, Chandler, & Rudd, 1989; Infante, Sabourin, Rudd, & Shannon, 1990; Sabourin, 1995; Straus & Sweet, 1992). A verbally aggressive attack may be fundamentally similar to a physically aggressive attack in intending to cause deliberate pain, with character attacks perceived as more catalytic than other types of verbally aggression communication. Such attacks on an individual's identity, particularly when viewed as illegitimate, unmitigated, and central to one's self-concept, may trigger physical retaliation in order to humiliate the attacker, prevent future face attacks, or force the attacker to make amends. The victim of verbal aggression may feel that physical force is the only way to defend his or her self-image and to discourage a future attack. From the perspective of interpersonal conflict theories, this may be particularly likely when skills for constructive management of conflict are lacking.

As noted in an earlier section, a number of studies have found that both husbands and wives in violent marriages demonstrated more skill deficits in presenting and defending positions on controversial issues, than individuals in nonviolent marriages. Consistent with this finding is evidence of spouse-specific assertiveness deficits among violent male partners, specifically in the areas of request making and expression of needs/wants. Given the above empirical and conceptual work on unilateral and reciprocal verbal aggression, including verbal attacks, threats, and blaming, the first hypothesis posed is:

H1: Men who are physically aggressive toward their partners will report a *greater frequency* of the communication patterns of Mutual Verbal Aggression, Male Unilateral Verbal Aggression, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Threaten/Partner Back Down, and Partner Threaten/Male Back Down than men who are not physically aggressive toward their partners.

Based upon both the empirical and the conceptual work presented herein, it is currently unclear what role **partner** verbal aggression, in the absence of male verbal aggression, (i.e. unilateral partner aggression) plays in physical aggression. The lack of empirical data may be due to a low baseline frequency of unilateral partner aggression in couples where physical aggression occurs, or possibly because researchers may not have considered the behavior productive to investigate.

Regardless, given the current lack of knowledge, the first research question posed is:

Q1: What is the relationship between the communication pattern of

Unilateral Partner Verbal Aggression and the occurrence of male  
physical aggression toward female partners?

One specific communication pattern subsumed within the more general category of verbal aggression is that of Pressure/Resist. It's hypothesized role in physical aggression is far less clear than those noted above. Conceptually, Roloff (1996) has suggested that one condition under which verbal aggression would more likely lead to physical aggression is the noncompliance and resistance of a partner to an individual's initial nonaggressive social influence attempts, which are viewed as a challenge to one's sense of control. Empirically, the study reviewed earlier by Lloyd, Koval, and Cate (1989) examined the use of a very similar communication strategy the authors labeled *persistence* (e.g., I remind partner of what I want until s/he gives in, I use persuasion, I pout or threaten to cry, I ask my partner to do what I want). The authors found that the strongest discriminator of violent, as compared to nonviolent, relationships was the persistent and repeated attempt to persuade the partner that one's own way is right. Given this indirect evidence, the second hypothesis posed is:

H2: Men who are physically aggressive toward their partners will report a *greater frequency* of the communication patterns of Male Pressure/Partner Resist and Partner Pressure/Male Resist than men who are not physically aggressive toward their partners.

A final consistent empirical finding regarding verbally aggressive communication patterns and physical aggression is related to the role of marital/relationship distress. The studies reviewed above found that the frequency and mutual reciprocity of verbal

aggression are communication patterns which appear to be characteristic of physical aggression, and not simply of marital distress. That is, the verbally aggressive communication patterns of violent subject groups were significantly different from both nonviolent-*distressed* and nonviolent-*nondistressed* groups. Furthermore, the distressed and nondistressed groups were not different from each other on these patterns. This finding was found for all types of aggressive communication patterns examined by the empirical studies reviewed above. Consistent with these empirical findings is conceptual work highlighting the fact that a majority of distressed, nonviolent couples do not become domestically violent. This suggests that individuals who are domestically violent must be qualitatively or quantitatively different from distressed, nonviolent individuals. Further support is based on several empirical studies, discussed in the rationale section, which have demonstrated that a significant proportion of violent couples are not maritally distressed. However, certain family violence scholars do suggest that violent individuals in highly distressed relationships should be distinctly different than violent individuals in less distressed relationships (Lloyd, 1990;1996). Given the above, the third and fourth hypotheses posed are:

H3: Relationship distress *will not moderate* the relationship between the communication patterns of Mutual Aggression, Unilateral Male Aggression, Unilateral Partner Aggression, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Pressure/Partner Resist, and Partner Pressure/Male Resist and the occurrence of male

physical aggression toward female partners.

H4: Men who are physically aggressive toward their partners will report a *greater frequency* of the communication patterns of Mutual Aggression, Unilateral Male Aggression, Unilateral Partner Aggression, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Pressure/Partner Resist, and Partner Pressure/Male Resist than men who are **distressed, but not physically aggressive** toward their partners.

All of the studies investigating verbally aggressive communication patterns have dichotomized the dependent variable, physical aggression, into occurrence vs. nonoccurrence, typically over the last twelve months. Therefore, there are no empirical data directly addressing the association between verbally aggressive communication patterns and the *level* (i.e. incremental frequency) of physical aggression. All conceptualizations of the relationship between verbal aggression and physical aggression, however, suggest that changes in the frequency of verbal aggression would be positively and linearly associated with changes in the frequency of physical aggression. This would appear to be true for several reasons. First, Straus's (1974) empirical test that verbal expression of anger and aggression should reduce the incidence of physical aggression because of a catharsis effect was **not** confirmed. In fact, he found that physical aggression increased at a more rapid pace with increases in levels of verbal aggression. Second, the literature on marital

distress and conflict suggests that individuals in relationships where physical aggression has occurred appear to experience feelings of anger, frustration, and contempt that are both stronger and longer lasting than their nonviolent counterparts. Third, Roloff (1996) has suggested that verbal aggression over time and sequences may serve to increase the frequency of physical aggression because: (a) disinhibiting factors (e.g., being reinforced for using power to manage conflict) begin to outweigh inhibiting factors, and (b) a high degree of anger over a prolonged period of time is generated in the context of verbally aggressive arguments. Given the above, the fifth hypothesis posed is:

H5: The **frequency** of the communication patterns of Mutual Verbal Aggression, Male Unilateral Verbal Aggression, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Pressure/Partner Resist, and Partner Pressure/Male Resist will be positively associated with the **frequency** of male physical aggression toward female partners.

#### Avoidance/Withdraw Conflict-Based Communication Patterns

Unfortunately, almost no conceptual work has been done on avoidance/withdraw communication strategies and domestic violence. The empirical work on the association between avoidance/withdraw and domestic violence, is represented by only two studies, which will be discussed below. Interpersonal conflict theories generally posit that conflict avoidance and withdrawal is dysfunctional for the long-term course of a relationship, largely because conflicts of interest do not get resolved. Markman

and Kraft (1989) have argued that unresolved issues fester and become more emotionally charged over time. As the number of unresolved issues and the volatility of issues increase, it is likely that couples becomes less tolerant of, and more sensitive to, any disagreement. Overall then, most conflict scholars consider habitual avoidance to represent a destructive disengagement strategy which precludes resolution of relationship problems due to a lack of tolerance for conflict (Gottman, 1994; Peterson, 1983; Vuchinich, 1987). Indeed, a number of observational and self-report studies have found evidence that avoidance of conflict and communication is significantly more characteristic of distressed than nondistressed, marital groups, and is more strongly correlated with marital dissatisfaction (Christensen & Shenk, 1991, Gottman, 1994; Gottman & Krokoff, 1989). Conversely, from the perspective of interpersonal communication theories, avoidance or withdraw, on one or both partner's part, could serve to decrease the likelihood of verbal aggression, and thereby decrease the likelihood of verbal aggression escalating or being a catalyst for physical aggression. Moreover, avoiding and withdrawing behavior may also serve a *constructive* disengagement function, when it is either used to postpone discussion of a conflict until a time when resolution is more likely to occur, or when it is used to terminate a verbally aggressive escalation cycle (Jacobson & Margolin, 1979).

The first of two empirical studies investigating avoidance/withdraw (Babcock, Waltz, Jacobson, and Gottman, 1993) examined the specific asymmetrical pattern of demand/withdraw. The study found that *high levels of* husband demand/wife withdraw and *high levels of* wife demand/husband withdraw were both characteristic

of couples in relationships where physical aggression had occurred. In contrast, nonviolent-distressed couples reported *high levels of only* wife demand/husband withdraw, while nonviolent-nondistressed couples reported *low levels of both* types of demand/withdraw. A strong implication is that the husband demand/wife withdraw communication is particularly characteristic of violence in the relationship, in contrast to distress only. A second implication is that wife demand/husband withdraw may be more characteristic of distress primarily. This is consistent with a number of empirical studies (Christensen, 1987a, 1988; Christensen & Heavey, 1990; Christensen & Shenk, 1991) which have found that wife demand/husband withdraw is particularly characteristic of distressed, in contrast to nondistressed relationships. One limitation of the above study was that the violent group was not broken into distress and nondistressed subgroups, therefore all four combinations of distress/nondistress and violence/nonviolence were not able to be examined. Given the above discussion, the sixth, seventh, eighth, ninth, and tenth hypotheses, specifically relating to demand/withdraw communication, are posed:

H6: Men who are physically aggressive toward their partners will report a *greater frequency* of the communication patterns of Male Demand/Partner Withdraw and Partner Demand/Male Withdraw than men who are not physically aggressive toward their partners.

H7: Relationship distress *will not moderate* the relationship between the communication patterns of Male Demand/Partner Withdraw and Partner Demand/Male Withdraw and the occurrence of male physical

aggression toward female partners.

H8: Men who are physically aggressive toward their partners will report a *greater frequency* of the communication pattern of Male Demand/Partner Withdraw than men who are **distressed, but not physically aggressive** toward their partners.

H9: Men who are physically aggressive toward their partners will report a frequency of the communication pattern of Partner Demand/Male Withdraw that will be *equivalent to* that of men who are **distressed, but not physically aggressive** toward their partners.

Aside from the asymmetrical patterns of demand/withdraw, only one empirical study has examined general patterns of avoidance/withdraw in relation to domestic violence and has provided somewhat mixed findings (Lloyd, 1990). This study investigated withdraw (e.g., leave the scene, stop talking about the issue) and avoidance responses (e.g., avoid the issue, refuse to talk about the issue) and found that withdraw responses to be similarly high among couples who evidenced either violence without distress, distress without violence, or a combination of violence and distress. That is, each of these three groups significantly differed from their nonviolent-nondistressed counterparts, but not from each other. This suggests that withdraw is characteristic of either violence *or* distress. In contrast, the study found that the frequency of avoidance responses did not significantly differ among any groups. Given limited empirical evidence and contrasting conceptualizations of the impact of a range of general avoidance/withdraw communication patterns on physical

aggression, the second, third, and fourth research questions posed are:

- Q2: What is the relationship between the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and the occurrence of male physical aggression toward female partners?
- Q3: Does relationship distress play a moderating role in the relationship between the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and male physical aggression toward female partners?
- Q4: How does the frequency of the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance among men who are physically aggressive toward their partners compare to that of men who are **distressed, but not physically aggressive** toward their partners?

As was the case with verbal aggression, all studies investigating avoidance/withdraw communication patterns have dichotomized the dependent variable physical aggression into occurrence vs. nonoccurrence, typically over the last twelve months. Therefore, there are no empirical data available directly addressing the association between avoidance/withdraw communication patterns and the *level* (i.e. incremental frequency) of physical aggression. Given this situation and contrasting conceptualizations of the impact of avoidance/withdraw on physical aggression, the fifth research question posed is:

Q5: What is the relationship between the **frequency** of the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and the **frequency** of male physical aggression toward female partners?

Problem-Solving/Cooperation Conflict-Based Communication Patterns

Conceptual and empirical work in the fields of marital distress and interpersonal conflict described earlier (Galvin & Brommel, 1986; Gottman, 1994; Jacobson & Gurman, 1986; Markman, Renick, Floyd, Stanley & Clements, 1993; Markman, Stanley, & Blumberg, 1994; Rands, Levinger, & Mellinger, 1981) suggest that when problem-solving communication is poor or lacking, a number of negative consequences may arise. First, problems often remain unresolved, with the same issue coming up over and over again. Second, decisions solutions tend to be more often unilateral rather than mutual, exemplified by a win-lose scenario in which one partner typically has little say in decision making. Third, a partner's point of view or position is not as well understood by the other. Fourth, the acceptance of decision outcomes is often low, adding a grievance which may compound the initial conflict issue. A final consequence is that marital satisfaction is decreased. From the perspective of conflict resolution and communication skills training, attaining a level of mutual expression and mutual understanding is viewed as a logical foundation for successfully resolving problems and developing mutually effective solutions.

In regards to physical aggression, initial empirical support has been found for a problem-solving, skill deficiency model of interspousal violence which proposes that

when a person does not have the verbal skills necessary to resolve social conflict cooperatively, s/he will be at increased risk of resorting to both verbal aggression and violence (Babcock, Waltz, Jacobson, & Gottman, 1993; Infante, Chandler, & Rudd, 1989). Additionally, a growing number of empirical studies have found that deficits in assertiveness characterize physically aggressive male spouses, relative to controls (Dutton & Strachen, 1987; Maiuro, Cahn, & Vitaliano, 1986; Rosenbaum & O'Leary, 1981). Assertiveness is typically operationalized as communicating openly and directly in the face of or some anticipated disapproval, and is therefore related to problem-solving skills enacted within the dyad, often in response to conflict. These studies have revealed several specific findings about assertiveness and physical aggression which are relevant. First, only deficits in spouse-specific assertive behavior, rather than in general assertive behavior, are characteristic of violent male partners. Second, skill deficits are particularly notable in the area of request-making behavior, including the expression of needs and wants in a positive fashion. Third, low levels of spouse-specific assertiveness typically do not differentiate among *violent* and *nonviolent*, distressed groups, but do differentiate these two groups from the *nondistressed-nonviolent* group.

Specific empirical findings regarding problem-solving/cooperation communication patterns and physical aggression are based on data from only two studies (Lloyd, 1990; Lloyd, Koval, and Cate, 1989). These studies examined *initiation of discussion* (e.g., present the problem, ask partner what's the matter), *compromise/negotiation* (e.g., I-we negotiate, I-we compromise, talk it over, discuss the issue calmly, try to

find a mutual solution), and *logic* (e.g., reason with partner, state the importance of what I want). The first study found that distressed couples, both violent and nonviolent, reported significantly *less* negotiation/compromise than nondistressed couples, both violent and nonviolent. This suggests that low levels of compromise/negotiation are particularly characteristic of **distress**, rather than **violence**. The study also found that the level of initiation of discussion most clearly differentiated *distressed* (lowest level) from *nondistressed-nonviolent* couples (highest level), but not from the violent subgroups. In the second study, neither compromise nor logic were significant discriminators of violent, as compared to nonviolent, relationships.

Based upon the conceptual work, there is a strong foundation for hypothesizing that physical aggression toward partners would be characterized by less frequent problem-solving/cooperation communication patterns. However, the two empirical studies directly testing this hypothesis provide far less clear support for this association between problem-solving/cooperation communication and physical aggression. The results of these two studies suggest that problem-solving/cooperation communication is either primarily characteristic of distress, rather than violence, or is equally characteristic of distress *or* violence. Given the weight of the conceptual work regarding problem-solving/cooperation communication and its potential impact on verbal and physical aggression, as well as empirical support that domestically violent males have deficits in problem-solving communication skills, the tenth research hypothesis posed is:

H10: Men who are physically aggressive toward their partners will report *less frequent* use of the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Emotional Expression, and Net Constructive Communication than men who are not physically aggressive toward their partners.

Given extremely limited information and mixed empirical findings associated with distress, problem-solving/cooperation communication patterns, and physical aggression, the sixth and seventh research questions posed are:

Q6: Does relationship distress play a moderating role in the relationship between the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Expression, and Net Constructive Communication and male physical aggression toward female partners?

Q7: How does the frequency of the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Expression, and Net Constructive Communication among men who are physically aggressive toward their partners compare to that of men who are **distressed, but not physically aggressive** toward their partners?

Finally, as was the case with verbal aggression and avoidance/withdraw, all studies investigating problem-solving/cooperation communication patterns have dichotomized the dependent variable physical aggression into occurrence vs. nonoccurrence, typically over the last twelve months. Therefore, there are no empirical data available directly addressing the association between problem-solving/cooperation communication patterns and the *level* (i.e. incremental frequency) of physical aggression. Given this situation and the limited conceptual work on the incremental impact of problem-solving/cooperation communication on the level of physical aggression, the eight research question posed is:

Q8: What is the relationship between the **frequency** of the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Expression, and Net Constructive Communication and the **frequency** of male physical aggression toward female partners?

## CHAPTER 3

### METHOD

#### Sample

A total of 280 male volunteers participated in this study. Participants were recruited from two sources: (a) a domestic violence monitoring program (DVMP) administered by the Tucson City Court, and (b) a public health clinic (PHC) administered and funded by Pima County. DVMP participants totalled 44, and PHC participants totalled 236. The DVMP is a mandatory program for all individuals who have been arrested and arraigned on misdemeanor domestic violence charges, where the arrest took place within the city limits. Legally, domestic violence includes several specific categories of behavior: (a) disturbing the peace (e.g., loud arguing), (b) property damage (i.e., one's own or a family member's property) and (c) assault (i.e., a physical act of violence against a family member). Legally, domestic violence applies to relationships between: (a) spouses, currently residing together or not (b) ex-spouses, currently residing together or not (c) cohabitating partners, (d) former cohabitating partners, and (e) family members related by blood or legal ties (e.g., step-son). DVMP participants are typically monitored on a monthly basis for a probation period ranging from 3 months to 3 years and are mandated to completed counseling services during that time. Participants for the study were recruited early in the process, approximately 2 weeks after their initial contact with the probation program. They all therefore completed the study questionnaire prior to participation in counseling and prior to ongoing probation monitoring. The DVMP source was

chosen for two reasons. First, in order to address the hypotheses and research questions of this study, it was necessary to have a sample that maximized the difference between violent and nonviolent couples, and allowed for variation in the degree of violence. A significant benefit to recruiting individuals from this source was the increased likelihood of finding individuals who: (a) are domestically violent, (b) exhibit a repeated pattern rather than an isolated, unusual incident, and (c) exhibit violence across a range of frequency and intensity. A second benefit to this source of participants was the decreased likelihood of social desirability affecting self-reported violence due to third party awareness, witness, and documentation of at least one incident.

The second source of participants, the Pima County health clinic, provides a range of low cost preventative health-related services (e.g., screenings, vaccinations) available to any individual without regard to income or other qualifying criteria. This source was chosen for three reasons. First, it facilitated the study of individuals from a community sample rather than from a clinical or college sample. Second, it facilitated sampling individuals whose characteristics have been associated with an increased risk of domestic violence (e.g., younger, lower socio-economic status). Third, it allowed for an increased likelihood of finding individuals who were comparable to the DVMP sample in terms of age, socio-economic status, ethnicity, marital status, etc.

The criterion for eligibility in the study was being in a relationship with a woman that is more than just casual dating for at least six months during the last twelve

months. This criterion was chosen to ensure: (a) that the study would be generalizable to relatively close romantic relationships, in contrast to dating relationships or intimate friendships, and (b) that a reasonable duration of time was sampled in order to operationalize domestic violence behavior. The determination that participants indeed met the criterion for eligibility was made via: (a) an informational cover sheet appended to the beginning of the questionnaire packet and (b) several specific questions in the demographic and general relationship information section of the questionnaire itself.

In regard to demographic information, the average age of the participants was 28.9 years, with a age range from 18 to 65 years. The large majority of participants were in their twenties (42%) and thirties (30.6%), with 18 and 19 year olds representing the next largest segment (15%), and a smaller percentage of participants in their forties (10.4%) or in their fifty and sixties (2%). Caucasian (41.4%) and Hispanic (36.7%) participants each comprised a substantial percentage of the sample, with a smaller percentage of African Americans (13.7%), Native Americans (2.5%) and Asian Americans (.7%). The median income range was \$10,000 - \$14,900, with 83% of the participants making under \$25,000 per year. High school was the highest level of education completed for 50% of the sample, with an addition 30% completing some college, and 20% completing college or beyond.

In regard to relationship information, 75% of participants were currently in a relationship with the target female, while 25% had ended that relationship. Among those currently in an ongoing relationship, 19.8% were married, 22.7% were

engaged, and 1.4% were divorced; 47.8% were currently living together in the same household. For all target relationships, either ongoing or ended, 65% had been living together at some time in the past, the average length of time in the relationship during the last twelve months was 9.4 months, with the average total length of relationship being 2.63 years in duration. The seriousness of the relationship, rated on a 10-point Likert scale from "only a little serious" to "very serious", was a mean of 7.66. Only 20% of participants fathered children with the target female; however, 36% were taking care of one or more children between the two of them during the course of the relationship.

#### Procedure

All participants completed a questionnaire packet which took 45 minutes to one hour to complete. Prior to completing the questionnaire packet, a member of the research team read a script to all potential participants describing a University of Arizona project on "conflict and disagreements" and describing the criterion for eligibility. Participants completed a consent form at the outset of their participation and were each paid \$15 upon completion of the questionnaire (See Appendix A for human subjects approval; See Appendix B for consent form). A member of the research team was always present during the entire time that individuals were completing the packet, and was available to answer questions and to check the completeness of the questionnaire when it was turned in. In the case of the DVMP, participants were required to complete an assessment interview approximately two weeks after beginning probation and meeting with a monitor assigned to their case.

The assessment interview was conducted by a contract counseling agency which was located at a separate address from that of the DVMP. Flyers describing a University of Arizona study on "conflicts and disagreements" were given to potential participants by the staff of the contract agency when they presented for their assessment interview. If an individual was interested in participating in the study, they were asked to sign up for one of a number of times when they could complete the study questionnaire. At those designated times, a member of the research team was always present and initiated the procedures described earlier for all participants. In the case of the PHC, participants signed in for health-related services and typically had to wait anywhere from one to two hours to be called. During these waiting periods, a member of the research team was present and initiated the procedures described earlier for all participants.

## Measures

### Demographic and General Relationship Information

The initial section of the questionnaire included 16 items which assessed demographic as well as general relationship information. The demographic questions asked about the participant's age, income level, educational level, ethnicity/race, religious preference, number of biological and nonbiological children and their ages. The general relationship questions included items that assessed marital status, length of the relationship, how long ago the respondent met the partner, how much time went by before the relationship was considered serious/significant, living arrangements during the last year, and the number of months they had been

separated/apart during the last year. (See Appendix C for the entire demographic and general relationship section of the questionnaire).

Occurrence and Frequency of Physical Aggression Toward Female Partners  
Abusive Behavior Inventory (ABI)

The ABI (Shepard & Campbell, 1992) is a 30-item inventory which assesses the occurrence and frequency of respondents' acts of physical and psychological aggression toward a partner over the previous twelve months. It is comprised of two subscales, one measuring verbally/psychologically aggressive behavior and the other measuring physically aggressive behavior. These two subscales can be aggregated in order to provide an overall measure of abusive behavior. Two versions of the ABI were completed by respondents: Partner and Others. The Partner version asked respondents to assess their frequency of acts of physical and psychological aggression toward the *target female partner* identified on the initial screening sheet of the questionnaire packet. The Others version contained the identical items, but asked respondents to assess their frequency of acts of physical and psychological aggression toward "any other people besides the person you identified in the shaded box on the first page of this packet. These other people might be, for example, previous girlfriends, ex-partners, ex-wives, male or female friends, co-workers, relatives, or even strangers". (See Appendix D for the entire measure, Partner version; See Appendix E for the entire measure, Others version). The Others version was employed in the study in order to have a more comprehensive operational definition of physical and psychological aggression during the last year, given that an individual

may be nonaggressive toward his female partner, while being aggressive with a range of others during the same time period.

The ABI was developed, in large part, in response to specific criticisms of the Conflict Tactics Scale (CTS; Straus, 1979, 1990), the most widely used assessment instrument for operationalizing the phenomena of domestic violence (Straus, 1990; Yllö, 1993). The CTS is a 19-item measure of partners' reports of abusive and aggressive behavior over the previous 12 months. Its subscales serve to distinguish between verbal and physical forms of "aggression", as well as to operationalize violent acts along a continuum of severity. The CTS has been criticized on a number of grounds (Dobash & Dobash, 1988; Kurt, 1993; Tolman, 1989). The first criticism is associated with its underlying assumption that domestically violent behavior, by definition, represents one end of a conflict resolution continuum (i.e., things you might do when you have an argument or when trying to settle differences). The second criticism is associated with its failure to measure injury-outcomes, conflict resolution status, the intent and purpose for aggression (e.g., self-defense). The third criticism is associated with its combining of certain aggressive acts together thereby implicitly equating them (e.g., bit, kick, hit with a fist; hit, tried to hit). The fourth criticism is associated with its limited domain of items that address psychological and emotional abuse (e.g., intimidation, domination, violence against property, pets, etc.). The fifth criticism is associated with its exclusion of acts of sexual aggression (e.g., physically forcing partner to have sex).

The ABI addresses these limitations in several ways. First, it asks respondents

to estimate how often specific behaviors "have occurred" or "happened" without describing the behaviors as conflict responses to a disagreement or argument. Second, it includes a far larger sampling of verbal/psychological behaviors. Third, it incorporates greater behavioral specificity of discrete physically aggressive acts. Last, it includes acts of sexual aggression. Item development of the ABI was based on in-depth interviews with both female victims and male batterers. A respondent is asked to estimate how often a particular domestically violent behavior occurred during the last 12 months using a 5-point Likert scale of: Never, Rarely, Occasionally, Frequently, Very Frequently. This method appears to be a significant limitation of the ABI in comparison to the CTS which allows for estimating the actual frequency of occurrence over the last twelve months using a 7-point/category response scale of: 0, 1, 2, 3-5, 6-10, 11-20, 21 or more. Given the clear advantage, the ABI was modified for the purposes of this study to use the response categories of the CTS.

Only the physical abuse subscale, comprising the physically aggressive items, was employed for the purposes of this study. This subscale is comprised of 12 items: (a) pushed, grabbed, shoved, or held her down, (b) slapped, hit, or bit her, (c) kicked her, (d) physically forced her to have sex, (e) threw her around, (f) physically attacked the sexual parts of her body, (g) choked or strangled her, (h) used a knife, gun, or other weapon against her, (i) threatened her with a knife, gun, or other weapon, (j) threw something at her, (k) threatened to hit or throw something at her, and (l) punched her. For the purposes of this study, the original ABI item "slapped, hit, or punched her" was both expanded and split into two distinct items because the

levels of aggression did not appear to be parallel. The item was modified to read "slapped, hit, or bit her", and a new item was created which read "punched her". (See Appendix D for the entire measure, Partner version; See Appendix E for the entire measure, Others version).

Following the method employed by Straus and his colleague (Straus, 1979, 1990; Straus & Sweet, 1992), the seven frequency response categories of 0, 1, 2, 3-5, 6-10, 11-20, and 21 or more were coded as approximate midpoints of 0, 1, 2, 4, 8, 15, with the last category set to 25 to reduce skewness. The *overall* frequency of aggression was calculated by summing the recoded response values across all items. The frequency of *physical* or *psychological* aggression, specifically, was calculated by summing the recoded values across the physically aggressive items or psychologically aggressive items, respectively.

Internal consistency reliability, construct validity, criterion-related validity, and factorial validity have each been established and reported for the ABI (Shepard & Campbell, 1992). The primary sample used to determine scale reliability and validity consisted of 100 males and 78 females. Men were all patients of a chemical dependency treatment program located within a veteran's hospital and the women were partners of these men. The ABI has been found to be internally consistent with alpha coefficients ranging from .76 to .91. Alpha coefficients for the psychological abuse subscale ranged from .76-.91, while alpha coefficients for the physical abuse subscale ranged from .80-.92. The reliability of the physical abuse subscale, which will be used for the purposes of this study, was reestablished using the current study

sample. The subscale was found to have relatively high internal consistency, based upon a coefficient alpha of .85.

In order to determine convergent construct validity, the ABI was correlated with three variables believed to be related to abuse in relationships: clinician's assessment of abuse, client's assessment of abuse, and previous arrest for domestic violence (Shepard & Campbell, 1992). Correlations between clinician's assessment and the ABI ranged from .45 to .50. Correlations between client's assessment of abuse and the ABI ranged from .42 and .63. Correlations between previous arrest for domestic violence and the ABI was correlated with two variables believed not to correlate strongly with abuse: age and household size. Correlations between age and the ABI ranged from .20 to .26, while correlations between household size and the ABI range from .01 to .41. Overall, variables predicted to be highly related to an abusive relationship had a stronger correlation to the ABI subscales than any of the variables predicted to be less strongly related, suggesting that the ABI subscales have good construct validity.

In order to establish criterion-related validity, four clinically validated criterion groups were established against which the ABI scores could be compared (Shepard & Campbell, 1992). The four groups were: (1) men identified in a clinical interview as having been physically abusive toward their partner, (2) partners of these physically abusive men, (3) men identified in a clinical interview as not having been physically abusive toward their partner, (4) partners of these nonabusive men. Both psychological and physical subscale scores of the ABI significantly discriminated

among abusive and nonabusive relationships for both men and women, with the strongest single discriminator being the physical subscale of the ABI. Furthermore, the ABI subscale scores for men and women known to be in abusive relationships were more than 25% higher than the scores of men and women identified as being in nonabusive relationships.

Finally, factorial validity was established by determining the degree to which each individual item correlated with the subscale it is presumed to be a part of (Shepard & Campbell, 1992). One item "spanked you" correlated weakly with both subscale scores and was subsequently dropped from the instrument. Every item from the physical subscale correlated strongly with the physical subscale total score and more strongly than with the psychological total score. However, for the psychological subscale, three items were found to have questionable factorial validity: (a) "threatened to hit or throw something at you", (b) "threatened you with a knife, gun, or other weapon", and (c) "threw, hit, kicked, or smashed something". The first item "threatened to hit or throw something at you" correlated moderately strongly with the psychological subscale (males = .67; females = .59), but correlated more strongly with the physical subscale (males = .81, females = .77). Shepard & Campbell (1992), therefore, made a decision to include this item as part of the physical subscale. Factorial validity for this item was reanalyzed using the current study sample and the item was found to correlate more strongly with the physical subscale (.65) than with the psychological subscale (.59) thereby confirming the decision to include the item in the physical subscale. For the second item "threatened you with a

knife, gun, or other weapon", Shepard & Campbell found that it correlated equally strongly with both the subscales (.33, .34) based on mens' reports, but correlated more strongly with the physical subscale (.62) than with the psychological subscale (.42) based on female partners' reports. Although their results were mixed, Shepard & Campbell made a decision to include this item as part of the physical subscale. Factorial validity for this item was analyzed using the current study sample and found to correlate more strongly with the physical subscale (.53) than with the psychological subscale (.44), thereby again confirming the decision to include the item in the physical subscale. For the third item "threw, hit, kicked, or smashed something", Shepard & Campbell found that it correlated more strongly with the psychological subscale (.61) than with the physical subscale (.51) based upon mens' reports, but correlated less strongly with the psychological subscale (.62) than the physical subscale (.71) based on females partners' reports. Although the results were contradictory, Shepard and Campbell made a decision to include this item in the *physical* subscale. Factorial validity for this item was reanalyzed using the current study sample and the item was found to correlate more strongly with the psychological subscale (.52) than with the physical subscale (.40), as was the case with male respondents reported by Shepard and Campbell. Given this finding, a decision was made to include this item as part of the *psychological* subscale, as was originally proposed by Shepard and Campbell.

### Conflict-Based Communication Patterns

#### Communication Patterns Questionnaire (CPO)

The CPQ (CPQ; Christensen, 1988; Christensen & Sullaway, 1984) is a 35-item, self-report measure that assesses partners' perception of dyadic communication patterns during three stages of conflict: (a) "when some problem in the relationship arises", (b) "during an argument or discussion of some relationship problem", and (c) "after an argument or discussion of some relationship problem". For the purposes of this study, only those items of the CPQ which assess the first two stages of conflict will serve as a measure of conflict-based communication patterns. Conflict and communication response behavior has traditionally been measured by global and microanalytic observational coding systems (see Markman & Notarius, 1987). These systems are extremely time consuming, costly, and have been criticized for having a variety of limitations and threats to validity (Baucom & Adams, 1987; Christensen, 1988, Christensen & Heavey, 1990; Jacob, Tennenbaum, & Krahn, 1987; Sillars, 1991). First, participants are observed for a relatively short period of time, usually 10-15 minutes, which may not allow for sampling of an adequate range of behavior patterns. Second, the range and type of issues discussed are limited or restricted relative to a natural setting. Unusual and/or relatively low base rate behaviors, such as physical aggression, may be too irregular or infrequent to provide a reliable baseline. Additionally, specific avoidance and withdrawal behaviors cannot be easily assessed because the experimental situation prevents spouses from physically withdrawing or leaving. Third, the nature of the interaction may well be changed or influenced by the knowledge of being observed. As Sillars (1991) has noted regarding the reactivity of observation, "In conflict studies the most socially desirable

style of communication is to openly confront conflict in an objective and mutually supportive fashion. One has to assume that individuals in a communication study are aware of such demand characteristics and will try to fulfill them" (p.211). Fourth, most observation takes place in one narrowly specialized context and cannot adequately assess a cross-section of typical interaction contexts. Fifth, the coding and evaluation of observed behavior are necessarily based on "outsider" observer judgements which may either miss, distort, or highly underestimate the subjective, idiosyncratic meanings associated with both verbal and nonverbal participant behavior.

The CPQ is a self-report alternative which has been used in several studies (Christensen, 1987a, 1988; Christensen & Heavey, 1990, 1993; Christensen & Shenk, 1991; Noller & White, 1990). Among the strengths of the CPQ are its: (a) behavioral specificity (e.g., I call her names, ridicule her, swear at her, or attack her character, competence, or appearance, while she does not), (b) ability to measure both symmetrical (e.g., we both feel understood) and non-symmetrical (e.g., I feel understood, but she does not) behavior, (c) ability to identify and assess specific types of interaction patterns (e.g., demand/withdraw, blame/resist), and (d) ability to sample patterns or predominant response styles over multiple conversations and contexts. (See Appendix F for the entire measure).

The CPQ was developed as an alternative to observational measurement of dysfunctional communication-based, interaction patterns in couples. More specifically, its purpose is to assess the sequential exchange between partners, in contrast to the content of communication, subjective reactions, or global evaluations

of communication (Christensen, 1988). As a behavioral self-report measure, the CPQ was designed to assess self-report estimates of the frequency of overt behavior, rather than to sample a construct as in typical psychological measures. No sampling redundancy, therefore, was built into the questionnaire in terms of multiple items assessing the identical interaction pattern. As a result of the above, only two relatively global subscales of the CPQ have been developed or utilized (Heavey, Larson, Christensen, & Zumtobel, 1996). Measurement has therefore necessarily relied on the use of individual, item-level analysis. As will be discussed shortly, validity of individual items has been reported, however inter-item reliability is not applicable. For the purposes of the current study, twenty communication patterns variables were derived from the CPQ: three subscales and seventeen single-item patterns. Table 1 summarizes these twenty communication pattern variables derived from the CPQ. Specific details about how these communication patterns and subscales were derived and defined are described below.

The primary subscale of the CPQ which has been utilized by Christensen and his associates (Christensen, 1987a; Christensen & Heavey, 1990, 1993; Christensen & Shenk, 1991) is the Constructive Communication subscale (an earlier version was called the Mutual Constructive Communication Subscale). The Constructive Communication subscale has been defined as the mean of three items assessing mutual constructive communication behaviors *minus* the mean of three items assessing mutual destructive communication behaviors. The former three items are: "We both try to

Table 1

Summary Of Twenty Conflict-Based Communication Pattern Variables

<u>Communication Pattern</u>	<u>Communication Patterns Questionnaire Source</u>
Verbal Aggression:	
<b>Symmetrical Patterns</b>	
Mutual Verbal Aggression <u>Subscale</u>	Mean of items 2a,6a,8a
Unilateral Male Verbal Aggression	Item 8b
Unilateral Partner Verbal Aggression	Item 8c
<b>Asymmetrical Patterns</b>	
Male Blame/Partner Defend	Item 2b
Partner Blame/Male Defend	Item 2c
Male Threaten/Partner Back Down	Item 6b
Partner Threaten/Male Back Down	Item 6c
Male Pressure/Partner Resist	Item 7a
Partner Pressure/Male Resist	Item 7b
Avoidance/Withdraw:	
<b>Symmetrical Patterns</b>	
Mutual Avoidance	Item 1a
Unilateral Male Avoidance	Item 1d
Unilateral Partner Avoidance	Item 1c
<b>Asymmetrical Patterns</b>	
Male Demand/Partner Withdraw	Item 5a
Partner Demand/Male Withdraw	Item 5b
Problem-Solving/Cooperation:	
<b>Symmetrical Patterns</b>	
Net Constructive Communication <u>Subscale</u>	Mean(1b,3a,4a) <b>minus</b> Mean(2a,6a,8a)
Mutual Problem-Solving <u>Subscale</u>	Mean of items 1b,3a,4a
Unilateral Male Negotiation	Item 4a
Unilateral Partner Negotiation	Item 4b
Unilateral Male Emotional Expression	Item 3b
Unilateral Partner Emotional Expression	Item 3c

discuss the problem", "We both express our feelings in words to each other", and "We both offer possible solutions or compromises". The latter three items are: "We both blame, accuse, and criticize each other", "We both threaten each other with something negative", and "We both call each other names, ridicule each other, swear at each other, or attack each others' character, competence, or appearance". The Constructive Communication subscale therefore assesses the *net* frequency of mutually *constructive communication behavior* above and beyond that of mutually *destructive communication behavior*. For the purposes of clarity, therefore, the subscale will be labelled Net Constructive Communication. Net Constructive subscale values, therefore, could be both negative or positive. A positive value would indicate the occurrence of more mutually *constructive* communication than mutually *destructive* communication. A negative value would indicate the occurrence of more mutually *destructive* communication than mutually *constructive* communication.

Although the Constructive Communication subscale has been found to be a reliable and valid measure, it unfortunately does not allow for separate assessment of the contribution of constructive versus destructive communication. An increase in the subscale score may be due to an increase in the amount of constructive communication behavior alone, or a decrease in the amount of destructive communication behavior alone, or some combination of the two. A subscale score of zero, for example, may be indicative of a couple who has equally high levels of both constructive and destructive behaviors, but it may be equally indicative of a couple who engages in no particularly destructive or constructive patterns. In fact, prior to

the recent establishment of the current subscale, Christensen and his associates had separately assessed the three mutual problem-solving items of the constructive communication subscale (i.e. Mutual Constructive Communication subscale). Given the limitations noted above, and for the purposes of this study, the mean of the three items assessing constructive communication will be used to define the Mutual Problem-Solving subscale, while the mean of the three items assessing destructive communication will be used to define the Mutual Verbal Aggression subscale.

The remaining communication patterns derived from the CPQ represent single items. They are as follows. The Unilateral Male Verbal Aggression pattern is represented by the item "I call her names, ridicule her, swear at her, or attack her character, competence, or appearance, while she does not" and the Unilateral Partner Verbal Aggression pattern is represented by the item "She calls me names, ridicules me, swears at me, or attacks my character, competence, or appearance, while I do not". The Male Blame/Partner Defend pattern is represented by the item "I blame, accuse and criticize her, while she gets defensive", while the Partner Blame/Male Defend pattern is represented by the item "She blames, accuses and criticizes me, while I get defensive". The Male Threaten/Partner Back Down pattern is represented by the item "I threaten something negative, while she gives in or backs down", while the Partner Threaten/Male Back Down pattern is represented by the item "She threatens something negative, while I give in or back down". The Male Pressure/Partner Resist pattern is represented by the item "I pressure her to do something or stop doing something, while she resists", while the Partner

Pressure/Male Resist pattern is represented by the item "She pressure me to do something or stop doing something, while I resist". The Mutual Avoidance pattern is represents by the item "We both avoid discussing the problem". The Unilateral Male Avoidance pattern is represented by the item "She tries to start a discussion, while I try to avoid a discussion". The Unilateral Partner Avoidance patterns is represented by the item "I try to start a discussion, while she tries to avoid a discussion". The Male Demand/Partner Withdraw pattern is represented by the item "I repeatedly complain and demand, while she withdraws, becomes silent, or refuses to discuss the matter further". The Partner Demand/Male Withdraw pattern is represented by the item "She repeatedly complains and demands, while I withdraw, become silent, or refuse to discuss the matter further".

Two patterns, noted earlier, and encompassed within the Net Constructive Communication subscale and the Mutual Problem-Solving subscale are those of Feeling Expression and Negotiation. Unlike every other symmetrical pattern defined by the CPQ which has both mutual and unilateral forms, the current version of the CPQ only assesses the mutual form of these two patterns as represented by the items "We *both* express our feelings in words to each other", and "We *both* offer possible solutions or compromises". Therefore, in order to extend the assessment to include the unilateral form of these same two patterns, four items were added to the original CPQ which simply reproduce the original item in unilateral form. The Unilateral Male Emotional Expression pattern is represented by the item "I express my feelings in words to her, while she does not", while the Unilateral Partner Emotional

Expression is represented by the item, "She expresses her feelings in words to me, while I do not". The Unilateral Male Negotiation pattern is represented by the item, "I offer possible solutions or compromises, while she does not", while the Unilateral Partner Negotiation pattern is represented by the item "She offers possible solutions or compromises, while I do not".

The reliability and validity of the CPQ has been presented in several published reports (Christensen, 1988; Christensen & Sullaway, 1984; Heavey, Larson, Christensen, & Zumtobel, 1996; Noller & White, 1990). For the subscale most often employed in empirical studies, the Constructive Communication (current version)/Mutual Constructive Communication subscale (previous version), relatively high interpartner agreement has been found, with correlations ranging between .70 and .80 (Christensen, 1988; Christensen & Sullaway, 1984; Heavey, Larson, Christensen, & Zumtobel, 1996). Internal consistency reliability of the Constructive Communication subscale has been shown to be high ( $\alpha = .84$  for males, .81 for females), as has that of the Mutual Constructive Communication subscale ( $\alpha = .91$  for males, .89 for females) (Heavey, Larson, Christensen, & Zumtobel, 1996). Considerable evidence for the construct and criterion-related validity of the measure has also been found. Specifically, Heavey, Larson, Christensen, and Zumtobel (1996) correlated spouses' reports of constructive communication using the CPQ with observer ratings of constructive communication during two videotaped problem-solving discussions. The CPQ demonstrated a moderately high degree of criterion validity, based upon correlations of .70 for husbands and .62 for wives. Construct

validity of both the Constructive Communication and Mutual Constructive Communication subscales has been demonstrated by the strong positive association between the quality of communication and spouses' reports of marital satisfaction and adjustment ( $r$ 's in the .70's) (Christensen, 1988; Christensen & Sullaway, 1984; Heavey, Larson, Christensen, & Zumtobel, 1996). Christensen and Shenk (1991) also demonstrated that the Mutual Constructive Communication subscale and a subscale related to mutual avoidance differentiated among three groups: nondistressed couples, married couples beginning treatment for marital distress, and separated/divorcing couples. Finally, Noller and White (1990) examined the validity of the CPQ by dividing married couples into categories of high, medium, and low marital adjustment. Employing each of the individual items of the CPQ separately, they found that 27 of the 35 items of the CPQ each discriminated between low and high marital adjustment. They also developed four subscales based on factor analysis, which they labelled Coercion, Mutuality, Post-Conflict Distress, and Destructive Processes. All four subscales significantly discriminated between the low and high marital adjustment groups, as well.

The reliability of each of the three subscales employed in the current study (i.e., Net Constructive Communication, Mutual Problem-Solving, Mutual Verbal Aggression), was reestablished using the current sample. Internal consistency reliability of the Net Constructive Communication subscale was found to be moderately high ( $\alpha = .75$ ), as was that of the Mutual Problem-Solving subscale ( $\alpha = .78$ ), and the Mutual Verbal Aggression subscale ( $\alpha = .75$ ).

## Relationship Distress

### Marital Opinion Questionnaire (MOQ)

The MOQ (MOQ; Huston & Vangelisti, 1991) is a self-report measure of marital/relationship satisfaction (i.e., degree of happiness, expectation for the future of the relationship), which was adapted from an earlier measure of life satisfaction (Campbell, Converse, & Rogers, 1976). The MOQ is an 11-item instrument comprised of two parts: (a) ten items rated on a 7-point semantic differential scale employing bipolar adjectives (e.g., hard-easy, hopeful-discouraging), and (b) a single item rating the global relationship on a 7-point Likert scale with anchors from "Completely Dissatisfied" to "Completely Satisfied". Respondents were asked to consider the last month of their relationship when making their evaluations.

Probably the most widely employed self-report instruments to assess marital distress have been Locke and Wallace's Marital Adjustment Test (MAT; 1959), and Spanier's Dyadic Adjustment Scale (DAS; 1976), which was an expansion of the MAT. The MAT primarily measures adjustment as defined by the extent of agreement between partners on such issues as handling of finances or sex relations, and by the quality of selected marital experience (e.g., can you confide in your mate?). It also includes a one-item general index of marital happiness. The DAS has four subscales: *dyadic satisfaction* (e.g., degree of happiness, expectation about the future of the relationship), *dyadic cohesion* (e.g., laugh together, engage in outside interests together), *dyadic consensus* (i.e. extent of agreement on many identical items from MAT), and *affectional expression* (e.g., showing affection and love). Its global

scale score, however, has most often been used as a general index of marital satisfaction. The MOQ was chosen over either of these measures for several conceptual and methodological reasons, noted by various researchers (Huston & Robbins, 1982; O'Leary & Arias, 1987; Sabatelli, 1988; Sharpley & Cross, 1982). The first issue of central concern in the assessment of marital distress has been the "blending" or confounding within a single instrument of: (a) multiple conceptual dimensions (e.g., adjustment, satisfaction, and quality), (b) subjective evaluations with objective characteristics, and (c) individual with dyadic units. There has been particular criticism of the confounding of adjustment and satisfaction, given concerns that the two dimensions may not necessarily be highly correlated, and that a couple may have arrived at a good adjustment despite having a high degree of dissatisfaction. Both the MAT and DAS are vulnerable to such problems. There are at least three specific resulting difficulties. The first difficulty is in not being able to independently assess each of the multiple conceptual dimensions which may be confounded within the particular instrument. The second difficulty is in not clearly knowing what the resulting score actually represents. The last difficulty relates to the reciprocal influence of subjective impression and objective assessments of the marriage, when both are solicited simultaneously. A second concern has been the inability of partners to accurately assess the more behaviorally-based components of adjustment or distress, characteristic of both the MAT and DAS. Low interpartner agreement has often been found in regard to the frequency or patterning of events and interaction within the relationship, such as time together or number of arguments. A final

though significant limitation associated with employing either the MAT or DAS for this study is the potential confounding of the constructs of marital distress and conflict-based interaction processes. Marital distress, as operationalized by the MAT and DAS, is based wholly, or in part, upon the assessment of marital adjustment, which encompasses those processes that are presumed to be necessary to achieve a harmonious, well-adjusted, and functional marital relationship. Such behaviorally-based processes include frequently interacting with each other, not disagreeing on important marital issues, communicating openly with each other, and resolving disagreements in a mutually satisfactory manner. Clearly, the constructs of marital adjustment and conflict-based communication processes overlap both conceptually and empirically. In response to the above noted limitations, the MOQ was employed because for three reasons. First, it does *not* blend multiple dimensions of distress, but assesses only satisfaction. Second, it does *not* employ behaviorally-based, objective assessments. Third, it does *not* include marital adjustment within its operational definition of marital distress.

The ten semantic differential items of the MOQ are: (a) Enjoyable-Miserable, (b) Hopeful-Discouraging, (c) Free-Tied Down, (d) Full-Empty, (e) Interesting-Boring, (f) Rewarding-Disappointing, (g) Brings out the best in me-Brings out the worst in me, (h) Connected-Lonely, (i) Easy-Hard, and (j) Worthwhile-Useless. As mentioned earlier, the global relationship satisfaction item is scaled on a 7-point Likert scale with anchors from "Completely Dissatisfied" to "Completely Satisfied". The MOQ was scored according to the procedure described by its author (Huston & Vangelisti,

1991). The overall MOQ score is computed by summing the mean rating of the ten semantic differential items and the rating of the global satisfaction item, thereby weighting each section equally. The overall scale score was inverted (1=lowest distress, 7=highest distress) in the current study and used as a metric measure of relationship distress for some analytic purposes. For other purposes, individuals were dichotomized into two subgroups, satisfied/nondistressed and Dissatisfied/distressed. The mid-point of the seven point score was used for logically dichotomizing individuals into groups (Huck & Cormier, 1996; Isaac & Michael, 1982), such that those individuals scoring below 4 were classified as satisfied-nondistressed, while those scoring above 4 were classified as dissatisfied-distressed.

The MOQ has been found to be internally consistent with alpha coefficients of the semantic differential scales ranging from .88 to .94 (Huston & Vangelisti, 1991). Construct validity has been established based on its moderately strong correlation ( $r=.79$ ) with the satisfaction subscale of Spanier's (1976) Dyadic Adjustment Scale, the most widely used measure of marital distress (Huston & Vangelisti, 1991). Additionally, marital satisfaction scores of the MOQ were found to correlate strongly ( $r=.72$ ) with marital partners' independent evaluations of their satisfaction in their relationship (Huston, McHale, & Crouter, 1986). Finally, Campbell, Converse, and Rogers (1976) have done extensive work with the original life satisfaction scale on which the MOQ was based, and have found it to be internally consistent with an alpha coefficient of .89. (See Appendix G for the entire measure).

The reliability of the MOQ was reestablished using the current study sample.

Internal consistency reliability of the ten semantic differential items was found to be high, based upon a coefficient alpha of .91. In addition, the mean of the ten semantic differential items was computed and that score was correlated with the score of the global satisfaction item in order to substantiate Huston's procedure for combining the two into a composite score. The correlation was found to be .66, which suggests that the global satisfaction and semantic differential items are generally measuring the same construct, but are not redundant enough to exclude either from the composite score.

## CHAPTER 4

### RESULTS

#### Plan of Analysis and Preliminary Analyses

In order to address the research hypotheses and research questions stated above, the measure of physical aggression was utilized in two different ways: (a) as a metric variable, and (b) as a categorical grouping variable formed to represent differing levels of occurrence of physically aggressive behavior. The rationale for employing the dependent measure as both a metric and categorical variable is related to the two distinctly different, but similar, questions being posed. As a metric variable, the question being asked is a linear one and relates to *incremental* change in a conflict-based communication pattern being predictive of *incremental* change in physical aggression. As a grouping variable, the question being asked is a nonlinear one and relates to *differences* among physically aggressive groups of men in their *mean level* of a conflict-based communication pattern. Four groups were formed in order to: (a) contrast men who do not exhibit physical aggression with those who do exhibit physical aggression toward female partners, and (b) combine the occurrence and frequency of physical aggression into meaningful categories of men who exhibit different levels of aggression.

The four groups of men are: (a) no physical aggression toward female partners nor toward others (n=98), (b) no physical aggression toward female partners, but some physical aggression toward others (n=31), (c) low frequency of physical aggression toward female partners (n=79), and (d) high frequency of physical

aggression toward female partners (n=72). The specific computation of the four groups, based upon the Abusive Behavior Index are described below. First, a group of men who represent the most conservative operational definition of nonviolent controls was computed based upon their having *both*: (a) zero instances of physical aggression during the past twelve months toward their partners, and (b) zero instance of physical aggression during the past twelve months toward others (i.e., previous girlfriends, ex-partners, ex-wives, male or female friends, co-workers, relatives, or strangers). A second group of men exhibited: (a) zero instances of physical aggression during the past twelve months toward their partners, and (b) one or more instances of physical aggression toward others during the past twelve months. These men comprised a second and distinct group in order to: (a) avoid confounding them with a more "pure" nonviolent control group, and (b) to examine the ways in which they are similar or dissimilar to nonviolent controls in contrast to males who were violent toward partners. The remaining two groups each evidenced one or more instances of physical aggression toward partners. In order to determine how best to categorize the frequency of occurrence of physical aggression, the distributions were inspected and a median split was computed. Based upon the median split, a lower frequency group was determined to represent between 1 and 5 instances of aggression, while a higher frequency group was determined to represent 6 or more instances of aggression. The composition of the four groups in regard to the frequency of violence is as follows. By definition, both the **nonviolent toward all** group and the **nonviolent toward partners only** group had 0 instances of violence toward partner.

The two physically aggressive groups had a range of from 1 to 168 instances of violence toward others with a mean of 20.83, and a standard deviation of 36.69. The **low frequency aggression group** had a range of from 1 to 5 instances of violence toward partners, with a mean of 2.46 and a standard deviation of 1.41. More specifically, 38% had 1 instance, 15% had 2 instances, 19% had 3 instances, 18% had 4 instances, and 10% had 5 instances. In contrast, the **high frequency of physical aggression group** had a range of from 6 to 182 instances of violence toward partners, with a mean of 25.9 and a standard deviation of 29.24. More specifically, 28% had between 6 and 10 instances, 36% had between 11 and 20 instances, 14% had between 21 and 30 instances, 10% had between 31 and 50 instances, 10% had between 51 and 100 instances, and 2% had between 101 and 182 instances.

Two analyses were conducted in order to examine potential subsample differences between those 44 participants drawn from the domestic violence monitoring program (DVMP) and those 236 participants drawn from the public health clinic (PHC). The first analysis was conducted on the DVMP and PHC subsamples in order to determine if they differed significantly on sixteen demographic or relationship variables. Results revealed that the two subsamples were statistically equivalent on all variables except for four: age, length of relationship, marital status, and number of children being taken care of in the relationship. In comparison to the PHC subsample, the DVMP subsample was 4.3 years older ( $F(1,277)=9.17, p<.01$ ), had relationships which were 3.2 years longer in duration ( $F(1,274)=27.09, p<.001$ ), were taking care of .66 more children ( $F(1,274)=13.12, p<.001$ ), and had

14.7% more married participants ( $\chi^2=20.39, p < .001$ ). Following a relatively common technique employed by Jacobson, Gottman, Waltz, Rushe, Babcock, and Holtzworth-Munroe (1994) and others, an analysis was conducted to determine the extent to which subsample differences were correlated with the dependent variable. This indicates the extent to which subsample differences may influence the dependent variable, independent of the influence of the predictor variables being investigated. Each of the four variables noted above was then correlated with the dependent variable physical aggression. All correlation coefficients were found to be nonsignificant. They were: length of relationship ( $r=-.03, p=.57$ ), number of children being taken care of ( $r=.06, p=.30$ ), relationship status ( $r=.01, p=.83$ ), and age ( $r=-.10, p=.086$ ). Therefore it was concluded that these subsample differences would not have a statistically significant effect on the dependent variable.

The second analysis was conducted on subsamples of **physically aggressive** participants who were arrested (i.e., DVMP;  $n=44$ ) and **physically aggressive** participants from the community (i.e., PHC;  $n=113$ ) in order to determine if the two subsamples differed significantly on any of the twenty communication pattern variables. Results revealed that the two subsamples were statistically equivalent on all communication variables except for four: Partner Blame/Male Defend, and Partner Demand/Male Withdraw, Unilateral Partner Aggression, and Mutual Aggression. In comparison to the community sampled physically aggressive participants, the arrested physically aggressive participants reported **1.8** more Partner Blame/Male Demand ( $t=4.2, p < .001$ ), **1.7** more Partner Demand/Male Withdraw ( $t=4.1, p < .001$ ),

.79 more Mutual Aggression ( $t=2.3$ ,  $p<.05$ ), and 1.2 more Unilateral Partner Aggression ( $t=2.7$ ,  $p<.01$ ). Given that significant differences in these four variables could potentially confound the results if the subsamples were combined, separate analyses were conducted for all analyses which involved these four communication patterns. Results indicated that the pattern of results regarding the relationship between communication patterns and physical aggression were identical for both subsample groups. Therefore, based upon both the analysis of demographic differences and the analysis of communication pattern differences, subsamples were combined for the purposes of this study.

#### Descriptive Statistics

Table 2 displays the descriptive statistics for physical aggression toward partner during the last 12 months. The percentage of respondents reporting at least one occurrence of each of twelve types of aggressive behavior, as well as the frequency of each of these behaviors is displayed. The table is organized in descending order by the percentage of respondents reporting instances of each behavior. Inspection of the descriptive statistics indicate that 53.5% of participants reported at least one occurrence of any of the types of aggressive behavior, with an overall average of 7.38 instances of aggression per year. By far, the largest percentage type of aggression represented was pushing/gabbing/shoving/holding down (42.4%). These behaviors are considered by most family scholars to be minor aggression, although the act can conceivable lead to significant injury in some cases. The next most common types of aggression, in descending order, were slapping/hitting/biting (27.7%), threatening to

Table 2

Descriptive Statistics for Physical Aggression Toward Partner

<u>ABI Item</u>	% of respondents reporting one or more occurrences	Frequency of occurrence			
		<u>M</u>	<u>SD</u>	<u>Min</u>	<u>Max</u>
Pushed, grabbed, shoved or held her down.	42.4	1.79	4.06	0.0	25.0
Slapped, hit, or bit her.	27.7	1.17	3.61	0.0	25.0
Threatened to hit her or throw something at her.	27.3	1.34	3.93	0.0	25.0
Threw her around.	21.6	0.69	2.43	0.0	25.0
Threw something at her.	16.5	0.51	2.03	0.0	25.0
Punched her.	10.4	0.49	2.72	0.0	25.0
Kicked her.	8.6	0.23	0.89	0.0	8.0
Physically forced her to have sex.	6.8	0.25	1.66	0.0	25.0
Choked or strangled her.	6.5	0.19	0.90	0.0	8.0
Physically attacked the sexual parts of her body.	6.1	0.46	2.83	0.0	25.0
Threatened her with a knife, gun, or other weapon.	5.4	0.13	0.70	0.0	8.0
Used a knife, gun, or other weapon against her.	3.6	0.14	0.85	0.0	8.0
All Items Above	53.5	7.38	18.46	0.0	182.0

hit her/throw something at her (27.3%), throwing her around (21.6%), and throwing something at her (16.5%). At least one occurrence of each of the remaining, more serious types of physical aggression (i.e., punching, kicking, physically forced sex, choking/strangling, potential use of a weapon) was reported by about 3% to 10% of participants.

On first inspection, 53.5% of participants reporting at least one occurrence of aggressive behavior toward their partners during the last 12 months would appear to be a high percentage relative to the general population. Indeed, incidence data from the two nationally representative family violence surveys of married and cohabiting couples conducted in 1975 and 1985 (Stets & Straus, 1989, 1990; Straus & Gelles, 1986) indicate that about 16% reported a violent incident (wide range of behavior) during the last year, based on the Conflict Tactics Scale (CTS). In contrast, two other studies, one of 132 martial couples voluntarily in counseling and other of 103 couples who volunteered, found that 53% and 48% of cases reported some incident of physical aggression during the last year, using the CTS. Five points are salient here. First, 44 participants derived from the DVMP source were all selected, by definition, because they were physically aggressive to partners. When these individual are excluded, the percentage of the community sample (i.e. Health Clinic) which reported some incident of physical aggression during the last year drops from 53.5% to 45%. Second, in the current full sample, aggressive behavior is represented in large measure by the occurrence of relatively *less* severe tactics (e.g., throwing an object, pushing, grabbing, shoving, slapping), though certainly not inconsequential. Results

of the two national surveys noted above indicate that more severe forms of physical aggression occur in about 5% of close relationships annually, a figure which is consistent with the 3%- 10% incidence rate for more severe tactics within the current sample. Third, findings from the same two family violence surveys indicate that the rates of interpartner aggression are highest among those who are lower socio-economic status (i.e., poor, unemployed, low-prestige jobs) and those who are between the ages 18 and 30. In the current sample, 61% of participants were between the ages of 18 and 30 and the median income range was \$10,000 - \$14,900. The current sample, therefore, is characteristic of both risk factors associated with higher expected rates of interpartner aggression. Fifth, there has been substantial criticism of the incidence and prevalence rates derived from the above cited family violence surveys because of their reliance on the Conflict Tactics Scale to assess interpartner violence (Dobash & Dobash, 1988; Kurt, 1993; Tolman, 1989). These authors suggest that the CTS underestimates the true rate because of its poor sampling and range of items representing actual and/or potential acts of physical aggression. In the current investigation, physical aggression is operationalized based upon 12 items, in contrast to the CTS, which employs only 7. The increased proportion of the current sample reporting one or more occurrences of physical aggression may, in part, represent an increased range of sampled behaviors.

Table 3 displays descriptive statistics for twenty communication pattern variables. Inspection of the descriptive statistics indicate that all variables: (a) demonstrated an adequate distribution range, with individual scores occurring across the maximum

Table 3

Descriptive Statistics for Twenty Conflict-Based Communication Pattern Variables

<u>Communication Pattern</u>	<u>M</u>	<u>SD</u>	<u>Min</u>	<u>Max</u>
<b>Verbal Aggression:</b>				
Mutual Verbal Aggression <u>Subscale</u>	3.71	2.06	1.0	9.0
Unilateral Male Verbal Aggression	2.87	2.28	1.0	9.0
Unilateral Partner Verbal Aggression	3.08	2.41	1.0	9.0
Male Blame/Partner Defend	3.99	2.52	1.0	9.0
Partner Blame/Male Defend	4.60	2.68	1.0	9.0
Male Threaten/Partner Back Down	2.82	2.10	1.0	9.0
Partner Threaten/Male Back Down	3.24	2.41	1.0	9.0
Male Pressure/Partner Resist	3.13	2.37	1.0	9.0
Partner Pressure/Male Resist	3.34	2.34	1.0	9.0
<b>Avoidance/Withdraw:</b>				
Mutual Avoidance	3.16	2.28	1.0	9.0
Unilateral Male Avoidance	4.20	2.62	1.0	9.0
Unilateral Partner Avoidance	4.31	2.70	1.0	9.0
Male Demand/Partner Withdraw	3.66	2.59	1.0	9.0
Partner Demand/Male Withdraw	3.45	2.44	1.0	9.0
<b>Problem-Solving/Cooperation:</b>				
Net Constructive Communication <u>Subscale</u>	2.48	3.27	-6.00	8.0
Mutual Problem-Solving <u>Subscale</u>	6.21	2.02	1.33	9.0
Unilateral Male Negotiation	3.85	2.56	1.0	9.0
Unilateral Partner Negotiation	3.46	2.25	1.0	9.0
Unilateral Male Emotional Expression	3.91	2.57	1.0	9.0
Unilateral Partner Emotional Expression	3.60	2.44	1.0	9.0

range available, and (b) were found to meet the assumption of a normal distribution of scores, based upon a *nonsignificant* departure from normality ( $z = \text{Skewness} / \text{S.E. Skewness}$ ; Tabachnick & Fidell, 1989). All communication pattern variables, with the exception of Net Constructive Communication, are positive values, with increasing values representing a greater likelihood of occurrence of the reported communication pattern. Inspection of the mean values for the twenty communication patterns, indicate that they generally fall in the range between 2.5 and 4.6, representing a moderate likelihood of occurrence, as would be expected. The mean likelihood of occurrence of Mutual Problem-Solving, interestingly, was relatively high (6.21). However, inspection of the actual distribution indicated that 30% of participants still had a value below that of the mid-point of the scale range, and that the mean was somewhat artificially inflated by nine subject with a maximum value of 9. In the case of Net Constructive Communication, the scale values can be positive or negative, and ranged from -6 to 8. Since the variable is operationalized as mutual constructive communication **minus** mutual destructive communication, a positive value indicates the amount of *net* constructive communication above and beyond destructive communication. A negative value indicates that there is no constructive communication above and beyond destructive communication, and therefore net communication is essentially destructive. Interestingly, 23% of participants had negative values for the Net Constructive Communication pattern variable.

Table 4 displays descriptive statistics for relationship distress, measured on a scale from 1 (lowest distress) to 7 (highest distress). Inspection of the descriptive

Table 4

Descriptive Statistics for Relationship Distress Among Four Subgroups of Physical Aggression

<u>Physical Aggression Group</u>	<u>% Distressed</u>	<u>% Not Distressed</u>	<u>Level of Distress</u>	
			<u>M</u>	<u>SD</u>
Nonviolent Toward All	21.4	78.6	2.71	1.33
Nonviolent toward Partners Only	19.4	80.6	2.54	1.27
Low Frequency Physical Aggression	26.6	72.2	3.27	1.20
High Frequency Physical Aggression	40.3	59.7	3.64	1.47
All Participants	27.5	72.5	3.10	1.40

statistics indicate that relationship distress has a mean of 3.1 and standard deviation of 1.4. Approximately 65% of participants' scores fell between 1.7 and 4.5 reflecting relatively satisfied relationship ratings. When relationship distress was dichotomized into distressed (n=77, score range=4 to 7) and nondistressed (n=202, score range=1 to 3.999) groups, as described in the measurement section, 27.5% of participants fell into the distressed group, and 72.5% fell into the nondistressed group. The distressed group had a mean of 4.90, and standard deviation of .693. The nondistressed group had a mean of 2.41 and standard deviation of .881. A validity check was conducted on the dichotomized distress variable in order to insure that the two groups formed by the dichotomization were significantly different from

each other in their level of distress. Results of one-way ANOVA indicated that groups did indeed differ significantly in their distress level as was expected ( $F=488.9, p < .000$ ).

Verbal Aggression Communication and the Occurrence of Physical Aggression:

H1, H2, Q1

Univariate, one-way Analysis of Variance (ANOVA) was used to test hypothesis 1 and hypothesis 2, and to address research question 1. Hypothesis 1 predicts that men who are physically aggressive toward their partners will report a greater frequency of the communication patterns of Mutual Verbal Aggression, Male Unilateral Verbal Aggression, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Threaten/Partner Back Down, and Partner Threaten/Male Back Down than men who are not physically aggressive toward their partners. Hypothesis 2 predicts that men who are physically aggressive toward their partners will report a greater frequency of the communication patterns of Male Pressure/Partner Resist and Partner Pressure/Male Resist than men who are not physically aggressive toward their partners. Research question 1 seeks to examine the relationship between the communication pattern of Unilateral Partner Verbal Aggression and the occurrence of male physical aggression toward female partners.

The analytic question being addressed by ANOVA is whether four different levels of occurrence of physical aggression (subgroup as a 4-level factor), are significantly different on their mean level of each of the nine verbally aggressive communication patterns noted above (metric variable). Here the "predictor" or factor

is physical aggression and the "outcome variable" is communication pattern. Although conceptually one might choose to utilize a procedure, like discriminant function analysis, which reverses their positions, there is no presumed casual order. In fact, Anova/Manova is discriminant function analysis turned around, with both being mathematically the same (Tabachnick & Fidell, 1989). ANOVA specifically, has the added benefit of an readily available capability for post-hoc analyses of specific subgroup differences. In order to determine, post hoc, which pairs of subgroups might statistically differ, the Tukey multiple comparison test was employed, which also adjusts for inflated Type I error (i.e. alpha slippage) due to multiple testing. It was chosen because it is generally regarded as the best procedure for controlling familywise error rate when one is making all pairwise comparisons among group means as is done in the current study (Howell, 1992).

Table 5 display the results of the ANOVAS, showing means, standard deviations, omnibus F values, and Eta squared for nine verbally aggressive communication patterns addressed in hypothesis 1 and 2, and research question 1. Results indicated that the mean frequency of each of the nine communication patterns was significantly different across groups. Differences across groups accounted for percentage of explained variation ranging from 22% to only 4% in the nine communication patterns. In order of decreased explained variation ( $\eta^2$ ), the patterns are: (a) Mutual Verbal Aggression (.22), (b) Unilateral Male Verbal Aggression (.17), (c) Male Threaten/Partner Back Down (.16), (d) Unilateral Partner Verbal Aggression (.15), (e) Male Blame/Partner Defend (.09), (f) Partner Blame/Male Defend (.09), (g)

Table 5

Summary of Analyses of Variance Comparing Mean Differences on Verbal Aggression Communication Patterns Among Four Subgroups of Physical Aggression

Communication Pattern	Physical Aggression Subgroup <sup>a</sup> : M (SD)				F	$\eta^2$
	0 instances	0 partner, 1+ other instances	1-5 instances	6+ instances		
Mutual Verbal Aggression	2.6 (3.2)	3.3 (3.2)	4.0 (2.9)	5.0 (2.9)	25.6***	.22
Unilateral Male Verbal Aggression	1.8 (1.6)	3.0 (2.5)	3.1 (2.3)	4.0 (2.4)	15.6***	.15
Unilateral Partner Verbal Aggression	1.9 (1.8)	2.5 (1.9)	3.7 (2.6)	4.2 (2.3)	18.7***	.17
Male Blame/ Partner Defend	3.0 (2.4)	4.0 (2.7)	4.3 (2.5)	4.9 (2.3)	9.2***	.09
Partner Blame/ Male Defend	3.6 (2.6)	4.5 (2.9)	5.1 (2.5)	5.5 (2.4)	8.6***	.09
Male Threaten/ Partner Back Down	1.9 (1.7)	2.6 (2.0)	3.1 (2.1)	4.0 (2.0)	15.5***	.16
Partner Threaten/ Male Back Down	2.4 (3.2)	3.0 (3.2)	3.7 (2.9)	3.9 (2.9)	7.2***	.08

Male Pressure/ Partner Resist	2.4 (2.2)	3.1 (2.6)	3.7 (2.4)	3.5 (2.3)	5.3**	.06
Partner Pressure/ Male Resist	2.8 (2.5)	3.2 (2.5)	3.8 (2.2)	3.6 (2.1)	3.2*	.04
All Verbal Aggression Communication Patterns <sup>b</sup>					$\chi^2 = 104.5^{***}$	.33

<sup>a</sup> groups are: (0) zero instances of physical aggression toward partner and zero towards others, (0 partner, 1+ other) zero instances toward partner and 1 or more toward others, (1-5) 1-5 instances of physical aggression toward partner, (6+) 6 or more instances of physical aggression toward partner.

<sup>b</sup> Based on discriminant function analysis, with the nine variables entered as a block.

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

Partner Threaten/Male Back Down (.08), (h) Male Pressure/Partner Resist (.06), and (i) Partner Pressure/Male Resist (.04). A significance test of the difference between Eta values was applied to the above nine patterns, using a two-tailed alpha level of .05 (Cohen & Cohen, 1983, p. 57). Results indicated that Mutual Verbal Aggression explained significantly more variance than any other single pattern. The five patterns with explained variation of between 17% and 9% were not significantly different from each other. However, these five patterns did each explain significantly more variation than the weakest three patterns, which explained between 8% and 4% and were not significantly different from each other.

Results of post-hoc comparison tests confirmed hypothesis 1. First, both the low

**and high frequency** physical aggression groups reported significantly *more* Mutual Verbal Aggression, Unilateral Male Verbal Aggression, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Blame/Partner Defend, and Partner Blame/Male Defend communication than the **nonviolent toward all** group (i.e. partners and others). Although these patterns are statistically significant, the relatively small percentage of variation explained in the specific patterns of Male Blame/Partner Defend (9%), Partner Blame/Male Defend (9%), and Partner Threaten/Male Back Down (8%), suggests caution regarding their practical significance.

A second finding informing hypothesis 1 is related to those communication patterns which were found to discriminate between the **low frequency** physical aggression and the **high frequency** physical aggression groups. The **high frequency** physical aggression group was characterized as having significantly *more* Mutual Verbal Aggression, and Unilateral Male Verbal Aggression communication than the **low frequency** physical aggression group.

A third finding informing hypothesis 1 is related to the **nonviolent toward partners only** group. These men reported being nonviolent with partners during the last 12 months, but being physically aggressive with others, including ex-partners, friends, acquaintances, or strangers. This group reported a frequency of verbal aggression across communication patterns that was typically *higher* than the nonviolent toward all group, but was *lower* than either of the violent groups. These group differences were usually not statistically significant, with several notable

exceptions. The **nonviolent toward partners only** group paralleled the *nonviolent toward all* group in having significantly less Unilateral Partner Verbal Aggression, Male Threaten/Partner Back Down, and Mutual Aggression than one or more of the physical aggression groups. Conversely, the **nonviolent toward partners only** group paralleled the *physical aggression groups* in having significantly more Unilateral Male Verbal Aggression than the nonviolent toward all group, with a likelihood of occurrence that was statistically equivalent to both of the physically aggressive groups.

Results of post-hoc comparison tests also provided support for hypothesis 2, regarding the communication patterns of Male Pressure/Partner Resist and Partner Pressure/Male Resist. The **low frequency** physical aggression group reported significantly *more* Male Pressure/Partner Resist and *more* Partner Pressure/Male Resist communication than the nonviolent toward all group. The **high frequency** physical aggression group reported only significantly *more* Male Pressure/Partner Resist communication than the nonviolent toward all group. Although statistically significant, the relatively small percent of variation explained (4%, 6%) suggests caution regarding their practical significance. The **nonviolent toward partners only** reported a frequency of both patterns of Pressure/Resist which was *higher* than the nonviolent toward all group, but was *lower* than either violent group. These group differences, however, were not statistically significant.

Results of post-hoc comparison tests also address research question 1 regarding the relationship between the communication pattern of Unilateral Partner Verbal

Aggression and the occurrence of male physical aggression toward female partners. Findings indicate that the **low and high frequency** physical aggression groups each reported significantly *more* Unilateral Partner Verbal Aggression, than both the **nonviolent toward all** group and the **nonviolent with partners only** group.

As an adjunct to the above analysis, the aggregate or combined contribution of all verbal aggression communication patterns to the occurrence of interpartner violence was tested and determined. In order to address this issue, standard discriminant function analysis was used. The analytic question being addressed by this procedure is whether the linear combination of all nine communication patterns significantly discriminates among four different levels of the occurrence of physical aggression (i.e. identical four groups as above) (4-level dependent variable). The percentage of variance explained by the communication patterns is indicated by the sum of the squared canonical correlations associated with each discriminant function. Results, displayed in Table 5, indicate that the set of nine verbal aggression communication patterns significantly discriminated among four groups  $\chi^2(27) = 104.5, p < .001$ , accounting for 33% of the variance.

Verbal Aggression Communication and Relationship Distress: H3 and H4

Hierarchical discriminant function analysis was used to address hypothesis 3. Hypothesis 3 predicts that relationship distress *will not moderate* the relationship between the communication patterns of Mutual Aggression, Unilateral Male Aggression, Unilateral Partner Aggression, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Threaten/Partner Back Down, Partner Threaten/Male Back

Down, Male Pressure/Partner Resist, and Partner Pressure/Male Resist and the occurrence of male physical aggression toward female partners. The primary analytic question being addressed by hierarchical discriminant function analysis is whether there is a significant moderating effect of level of distress on the relationship between a specific communication pattern and the four levels of occurrence of physical aggression. Statistically, an interaction is defined as an effect of two variables in combination which is not accounted for by the effects of the variables individually. Therefore, hierarchical discriminant function analysis tests the interaction term, assessed after the main effects have been accounted for. Hierarchical discriminant function analysis was run separately for each of the nine communication patterns above, with the occurrence of physical aggression (four-group variable) as the criterion variable. For each analysis, three terms entered as predictor variables: (a) the metric frequency level of the specific communication pattern, (b) the metric level of distress, and (c) the interaction of the level of the communication pattern and the level of distress. Hierarchically, the two main effects terms (i.e. communication pattern, distress) were entered first, followed by the interaction term. The occurrence of a moderating effect is reflected in the interaction term being statistically significant.

Table 6 displays the results of the hierarchical discriminant function analyses, showing the interaction term degrees of freedom, F values necessary to enter and thereby demonstrate a significant effect, actual F values, and significance levels for nine verbally aggressive communication patterns addressed in hypothesis 3. Results confirmed hypothesis 3 in that the level of distress was **not** found to moderate any of

Table 6

Summary of Hierarchical Discriminant Analyses Testing the Moderational (Interactional) Effect of Distress on the Relationship Between Verbal Aggression Communication Patterns and Physical Aggression

<u>Communication Pattern</u>	<u>Interaction D.F.</u>	<u>Minimum F to Enter</u>	<u>Interaction F</u>	<u>Interaction p<sup>a</sup></u>
Mutual Verbal Aggression	3, 275	3.84	1.45	NS
Unilateral Male Verbal Aggression	3, 273	3.84	1.67	NS
Unilateral Partner Verbal Aggression	3, 272	3.84	2.79	NS
Male Blame/ Partner Defend	3, 272	3.84	1.32	NS
Partner Blame/ Male Defend	3, 272	3.84	0.45	NS
Male Threaten/ Partner Back Down	3, 269	3.84	3.13	NS
Partner Threaten/ Male Back Down	3, 269	3.84	0.22	NS
Male Pressure/ Partner Resist	3, 273	3.84	1.35	NS
Partner Pressure/ Male Resist	3, 274	3.84	0.84	NS

<sup>a</sup>NS=Nonsignificant F level to enter at the .05 level.

the nine verbally aggressive communication patterns. That is, the relationship between each of the verbal aggression communication patterns and physical aggression was statistically equivalent *across differing levels* of relationship distress. The direct implication of the results is that the pattern of a greater frequency of verbally aggressive communication among physically aggressive participants relative to nonaggressive participants holds true for those who were relationally distressed, as well as those who were nondistressed.

Hypothesis 4 extends the examination of the role of distress by addressing how specific communication patterns among physically aggressive men compare to those men who are distressed, but not physically aggressive. The primary analytic question being addressed is whether a specific communication pattern is particularly characteristic of physical aggression or is equally characteristic of physical aggression or distress, nonaggression. Hypothesis 4 specifically predicts that men who are physically aggressive toward their partners will report a *greater frequency* of the communication patterns of Mutual Aggression, Unilateral Male Aggression, Unilateral Partner Aggression, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Pressure/Partner Resist, and Partner Pressure/Male Resist than men who are **distressed, but not physically aggressive** toward their partners.

In order to test this hypothesis, the low frequency of physical aggression and high frequency of physical aggression groups were each compared to the **nonviolent toward all** group which was *distressed* (n=77, score range=4 to 7). Because no

comparisons were being made to the nondistressed, nonviolent participants, they were excluded from this analysis. The participants who were **nonviolent toward partner only** were also excluded from this analysis. Univariate, one-way Analysis of Variance (ANOVA) was used to examine the specific distress-related, post-hoc group differences addressed in hypothesis 4. The analytic question being addressed by ANOVA is what pattern of significant differences exist among three groups (subgroup as a 3-level factor), but specifically related to the distressed, nonviolent reference group. As before, the Tukey multiple comparison test was employed in order to determine which pairs of subgroups might statistically differ and to adjust for inflated Type I error (i.e. alpha slippage) due to multiple testing.

Table 7 displays the results of the ANOVAS, showing means, standard deviations, and omnibus F values for nine verbally aggressive communication patterns addressed in hypothesis 4. Results provided mixed support for hypothesis 4 in that only five of the nine communication patterns were significantly different from the distressed, nonviolent group, for one or both physical aggression groups. That is, a higher mean occurrence of these five verbal aggression communication patterns indicate that they were significantly more characteristic of physical aggression than distress, nonviolence. The other four patterns therefore were found to be equally characteristic of physical aggression and of distress, nonaggression. Specifically, post-hoc comparisons indicated that both the **low and high** physically aggressive groups reported *more* Male Threaten/Partner Back Down and Partner Threaten/Male Back Down than their distressed, nonviolent counterparts. However, only the **high**

Table 7

Summary of Analyses of Variance Comparing Low and High Frequency of Physical Aggression Groups with Nonviolent, Distressed Group on Mean Frequency of Nine Verbal Aggression Communication Patterns

<u>Communication Pattern</u>	Physical Aggression Subgroup <sup>a</sup> : <u>M</u> ( <u>SD</u> )			Omnibus <u>F</u>
	<u>1-5 Group</u>	<u>6+ Group</u>	<u>Nonviolent Distressed Group</u>	
Mutual Verbal Aggression	4.0 (1.8)	<u>5.0</u> (1.8)	3.2 (1.8)	10.9***
Unilateral Male Verbal Aggression	3.1 (2.3)	<u>4.0</u> (2.4)	2.2 (2.2)	6.1**
Unilateral Partner Verbal Aggression	3.7 (2.6)	<u>4.2</u> (2.3)	2.4 (3.0)	4.2*
Male Blame/ Partner Defend	4.3 (2.5)	4.9 (2.3)	4.0 (2.5)	1.7
Partner Blame/ Male Defend	5.1 (2.5)	5.5 (2.4)	4.3 (2.8)	1.7
Male Threaten/ Partner Back Down	<u>3.1</u> (2.1)	<u>4.0</u> (2.4)	1.7 (1.3)	10.9***
Partner Threaten/ Male Back Down	<u>3.7</u> (2.5)	<u>3.9</u> (2.0)	2.1 (1.8)	5.2**

Male Pressure/ Partner Resist	3.6 (2.4)	3.5 (2.3)	2.7 (2.3)	1.5
Partner Pressure/ Male Resist	3.8 (2.2)	3.6 (2.1)	2.6 (2.1)	2.4

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<sup>a</sup> groups are: (1-5) 1-5 instances of physical aggression toward partner, (6+) 6 or more instances toward partner.

\_\_\_ underlined indicates that that specific group was significantly different from the Nonviolent, Distressed reference group at the  $p < .05$  level.

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

frequency physically aggressive males reported *more* Mutual Verbal Aggression, Unilateral Male Verbal Aggression, and Unilateral Partner Aggression than their distressed, but nonviolent counterparts.

The remaining four patterns of Male Blame/Partner Defend, Partner Blame/Male Defend, and Male Pressure/Partner Resist, and Partner Pressure/Male Resist were not found to differ between the physically aggressive groups and the distressed, nonviolent group, contrary to predictions. These four patterns, then, were equally likely to occur in either physically aggressive relationships or in distressed, nonaggressive relationships.

Verbal Aggression Communication and the Level of Physical Aggression: H5

Pearson Correlation was used to address hypothesis 5 which predicts that an increase in the level of the communication patterns of Mutual Verbal Aggression, Male Unilateral Verbal Aggression, Male Blame/Partner Defend, Partner Blame/Male

Defend, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Pressure/Partner Resist, and Partner Pressure/Male Resist will be associated with an linear increase in the level of physical aggression toward female partners. For the purpose of this analysis, the frequency of physical aggression was utilized as a continuous metric variable, in contrast to a grouping variable as before.

Table 8 displays the linear correlation coefficients and p values (two-tailed) for nine bivariate relationships. Results provided partial support for hypothesis 5. Specifically, seven of the nine verbal aggression communication patterns demonstrated a significant **positive** linear association with the frequency of physical aggression. That is, an increase in the frequency of physical aggression was significantly associated with an increase in the following seven patterns, in order of decreasing magnitude (r): Mutual Verbal Aggression (.31), Unilateral Male Verbal Aggression (.30), Male Threaten/Partner Back Down (.29), Unilateral Partner Verbal Aggression (.23), Male Blame/Partner Defend (.17), Partner Threaten/Male Back Down (.16), and Partner Blame/Male Back Down (.13). The communication patterns of Male Pressure/Partner Resist and Partner Pressure/Male Resist were *not* significantly correlated with the frequency of physical aggression.

As an adjunct to the above analysis, the aggregate or combined contribution of all nine verbal aggression communication patterns to the frequency (i.e. metric, continuous level) of physical aggression was tested and determined. In order to address this issue, standard multiple regression was used. The analytic question being

Table 8

Pearson Product Moment Correlations Between the Frequency of Verbal Aggression Communication Patterns and the Frequency of Physical Aggression

<u>Communication Pattern</u>	<u>Physical Aggression</u>
Mutual Verbal Aggression	.31***
Unilateral Male Verbal Aggression	.30***
Unilateral Partner Verbal Aggression	.23***
Male Blame/Partner Defend	.17**
Partner Blame/Male Defend	.13*
Male Threaten/Partner Back Down	.29***
Partner Threaten/Male Back Down	.16**
Male Pressure/Partner Resist	.11
Partner Pressure/Male Resist	.09
All Verbal Aggression Patterns <sup>a</sup>	.39***

<sup>a</sup>  $R$  based on standard multiple regression, with the nine variables entered as a block.

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

addressed by standard multiple regression is the extent to which the linear combination of all nine communication patterns is associated with, or predictive of, the frequency of aggression. Results, displayed in Table 8, indicate that the set of nine verbal aggression communication patterns were significantly predictive of the frequency of physical aggression  $F(9,260) = 5.0$ ,  $p < .001$ , with a multiple correlation coefficient of .39, accounting for 15% of the variance in the frequency of physical aggression.

### Summary of Results Regarding Verbal Aggression Communication

1. Physically aggressive males reported a significantly **greater** frequency of Mutual Verbal Aggression, Unilateral Male Verbal Aggression, Unilateral Partner Verbal Aggression, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Pressure/Partner Resist, and Partner Pressure/Male Resist communication in their relationships than did males who were nonaggressive (i.e. to partners and others). However, the most sizable differences were found for the patterns of Mutual and Unilateral Verbal Aggression, and for the pattern of Male Threaten/Partner Back Down.
2. *High frequency* physically aggressive males reported a significantly **greater** frequency of Mutual Verbal Aggression and Unilateral Male Verbal Aggression communication in their relationships than did *low frequency* physically aggressive males.
3. Males who were physically aggressive to others, but were not aggressive toward partners had a frequency of verbally aggressive communication patterns that was typically *higher* than the nonviolent toward all group, but *lower* than either physically aggressive group. These group differences were usually not statistically significant, with several notable exceptions. The **nonviolent toward partners only** paralleled the *nonviolent toward all* group in having significantly less Unilateral Partner Verbal Aggression, Male Threaten/Partner Back Down, and Mutual Aggression than one or more of the physical aggression groups.

Conversely, the **nonviolent toward partners only** group did parallel the *physical aggression groups* in having significantly more Unilateral Male Verbal Aggression than the nonviolent toward all group, with a frequency that was statistically equivalent to both of the physically aggressive groups.

4. The *incremental* frequency of Verbal Aggression communication was significantly and positively associated with the *incremental* frequency of physical aggression for all patterns except Pressure/Resist, which had no significant association. The most sizable correlations were for Mutual Verbal Aggression (.31), Unilateral Male Verbal Aggression (.30), and Male Threaten/Partner Back Down (.29).
5. Relationship distress was **not** found to moderate the relationship between any Verbal Aggression communication pattern and the occurrence of physical aggression.
6. Of the nine Verbal Aggression communication patterns found to occur at a significantly **greater** frequency in the relationships of physically aggressive males, five were reported to occur at frequencies above and beyond that of distressed, but nonviolent males. Both *low and high* frequency physically aggressive males reported **more** Male Threaten/Partner Back Down and Partner Threaten/Male Back Down than their distressed, nonviolent counterparts. Only the *high* frequency physically aggressive males reported **more** Mutual Verbal Aggression, Unilateral Male Verbal Aggression, and Unilateral Partner Aggression than their distressed, but nonviolent counterparts. The four patterns

which were **statistically equivalent** to that of distressed, but nonviolent males were Male Blame/Partner Defend, Partner Blame/Partner Defend, Male Pressure/Partner Resist, and Female Pressure/Male Resist.

Avoidance/Withdraw Communication and the Occurrence of Physical Aggression:

H6 and Q2

Univariate, one-way Analysis of Variance (ANOVA) was used to test hypothesis 6 and to address research question 2. Hypothesis 6 predicts that men who are physically aggressive toward their partners will report a greater frequency of the communication patterns of Male Demand/Partner Withdraw and Partner Demand/Male Withdraw than men who are not physically aggressive toward their partners. Research question 2 seeks to examine the relationship between the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and the occurrence of male physical aggression toward female partners. The analytic question being addressed by ANOVA is whether four different levels of physical aggression (subgroup as a 4-level factor), are significantly different on their mean level of each of five Avoidance/Withdraw communication patterns noted above (metric variable). As before, the Tukey multiple comparison test was employed in order to determine which pairs of subgroups might statistically differ and to adjust for inflated Type I error due to multiple testing.

Table 9 display the results of ANOVAS, showing means, standard deviations, omnibus F values, and Eta squared for five Avoidance/Withdraw communication patterns addressed in hypothesis 6 and research question 2. Results of post-hoc

comparison tests provided support for hypothesis 5, regarding the patterns of Male Demand/Partner Withdraw and Partner Demand/Male Withdraw. First, both the **low and high frequency** physical aggression groups reported significantly *more* Male Demand/Partner Withdraw than the **nonviolent toward all** group (i.e., partner and others). However, only the **low frequency** physical aggression group reported significantly *more* Partner Demand/Male Withdraw than the **nonviolent toward all** group. Although these patterns are statistically significant in several cases, the relatively small percentage of variation explained in Male Demand/Partner Withdraw (8%) and Partner Demand/Male Withdraw (4%) communication suggests caution regarding their practical significance. A significance test of the difference between Eta values was applied to the above two patterns using a two-tailed alpha level of .05 (Cohen & Cohen, 1983, p.57). Results indicated that neither explained significantly more variance than the other.

Additional findings informing hypothesis 6 and research question 2 were: (1) the frequency of neither Demand/Withdraw pattern was not found to discriminate between low and high frequency physical aggression groups, and (2) the **nonviolent toward partners only** group reported a frequency of Demand/Withdraw patterns which was *higher* than the nonviolent toward all group, but *lower* than either violent group. These group differences, however, were not statistically significant.

Results of post-hoc comparison tests also addressed research question 2, regarding the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance. Both the **low and high frequency**

Table 9

Summary of Analyses of Variance Comparing Mean Differences on Avoidance/Withdraw Communication Patterns Among Four Subgroups of Physical Aggression

Communication Pattern	Physical Aggression Subgroup <sup>a</sup> : <u>M (SD)</u>				F	$\eta^2$
	<u>0 instances</u>	<u>0 partner 1+ other instances</u>	<u>1-5 instances</u>	<u>6+ instances</u>		
Mutual Avoidance	2.6 (2.0)	3.0 (2.4)	3.7 (2.5)	3.4 (2.2)	4.1**	.04
Unilateral Male Avoidance	3.9 (2.7)	4.6 (2.9)	4.5 (2.7)	4.1 (2.2)	0.9	.01
Unilateral Partner Avoidance	3.8 (2.8)	3.6 (2.8)	4.7 (2.6)	4.9 (2.5)	3.6*	.04
Male Demand/ Partner Withdraw	2.8 (2.3)	3.3 (2.8)	4.2 (2.7)	4.5 (2.5)	8.0***	.08
Partner Demand/ Male Withdraw	2.9 (2.5)	3.0 (2.2)	4.0 (2.7)	3.7 (2.0)	3.5*	.04
All Avoidance/Withdraw Communication Patterns <sup>b</sup>					$\chi^2=37.0^{**}$	.13

<sup>a</sup> groups are: (0) zero instances of physical aggression toward partner and zero towards others, (0 partner, 1+ other) zero instances toward partner and 1 or more toward others, (1-5) 1-5 instances of physical aggression toward partner, (6+) 6 or more instances of physical aggression toward partner.

<sup>b</sup> Based on discriminant function analysis, with the five variables entered as a block.

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

physical aggression groups reported significantly *more* Mutual Avoidance and Unilateral Partner Avoidance communication than the **nonviolent toward all** group. However, *no* differences were found among groups for the communication pattern of Unilateral Male Avoidance. As before, the relatively small percentage of variation explained in Mutual Avoidance (4%) and Unilateral Partner Avoidance (4%) communication patterns suggests caution regarding their practical significance. Additionally findings were: (1) none of the three patterns was found to discriminate between low and high frequency physical aggression groups, and (2) the **nonviolent toward partners only** group reported a frequency of the three patterns which was *higher* than the nonviolent toward all group, but *lower* than either violent group. These group differences, however, were not statistically significant.

As an adjunct to the above analysis, the aggregate or combined contribution of all Avoidance/Withdraw communication patterns to the occurrence of interpartner violence was tested and determined. In order to address this issue, standard discriminant function analysis was used. The analytic question being addressed by this procedure is whether a set of multiple communication patterns can significantly discriminate among the four different levels of physical aggression (i.e. identical four groups as above) (subgroup as a 4-level dependent variable). The percentage of variance explained by the communication patterns is indicated by the sum of the squared canonical correlations associated with each discriminant function. Results, displayed in Table 9 indicated that the set of Avoidance/Withdraw communication patterns significantly discriminated among different levels of occurrence of aggression

$\chi^2 (15)=37.0, p < .01$ , accounting for 13% of the variance.

Avoidance/Withdraw Communication and Relationship Distress: H7, H8, H9, Q3, Q4

Hierarchical discriminant function analysis was used to address research hypotheses 7 and research question 3, regarding the moderating role of distress. Hypothesis 7 predicts that relationship distress *will not moderate* the relationship between the communication patterns of Male Demand/Partner Withdraw and Partner Demand/Male Withdraw and the occurrence of male physical aggression toward female partners. Research question 3 seeks to examine whether relationship distress plays a moderating role in the relationship between the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and male physical aggression toward female partners. The primary analytic question being addressed by this procedure is whether there is a significant moderating effect of level of distress on the relationship between a specific communication pattern and the four levels of occurrence of physical aggression. Statistically, this is a test of the interactional effect which is an effect assessed after the main effects have been accounted for. Hierarchical discriminant function analysis was run separately for each of the nine communication patterns above, with the occurrence of physical aggression (four-group variable) as the criterion variable. For each analysis, three terms entered as predictor variables: (a) the metric frequency level of the specific communication pattern, (b) the metric level of distress, and (c) the interaction of the level of the communication pattern and the level of distress. Hierarchically, the two main effects terms (i.e. communication pattern, distress) were entered first, followed by the

interaction term. The occurrence of a moderating effect is reflected in the interaction term being statistically significant.

Table 10 displays the results of the hierarchical discriminant function analyses, showing the interaction term degrees of freedom, F values necessary to enter and thereby demonstrate a significant effect, actual F values, and significance levels for five Avoidance/Withdraw communication patterns addressed in hypothesis 7. Results confirmed hypothesis 7 in that distress was **not** found to moderate the relationship between Male Demand/Partner Withdraw nor Partner Demand/Male Withdraw and the occurrence of male physical aggression toward female partners. In regard to research question 3, distress was **not** found to moderate the relationship between the remaining patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and male physical aggression toward female partners. That is, the relationship between each of the five Avoidance/Withdraw communication patterns and physical aggression was statistically equivalent *across differing levels of* relationship distress. The direct implication of the results is that the pattern of a greater frequency of Avoidance/Withdraw communication among physically aggressive participants relative to nonaggressive participants holds true for those who were relationally distressed, as well as those who were nondistressed. As discussed earlier, no differences were found between the physically aggressive and nonaggressive groups for the specific pattern of Unilateral Male Avoidance.

Hypotheses 8 and 9, as well as research question 4, extend the examination of the role of distress by addressing how specific communication patterns among

Table 10

Summary of Hierarchical Discriminant Analyses Testing the Moderational (Interactional) Effect of Distress on the Relationship Between Avoidance/Withdraw Communication Patterns and Physical Aggression

<u>Communication Pattern</u>	<u>Interaction D.F.</u>	<u>Minimum F to Enter</u>	<u>Interaction F</u>	<u>Interaction p<sup>a</sup></u>
Mutual Avoidance	3, 270	3.84	0.43	NS
Unilateral Male Avoidance	3, 270	3.84	0.78	NS
Unilateral Partner Avoidance	3, 270	3.84	0.51	NS
Male Demand/ Partner Withdraw	3, 273	3.84	0.69	NS
Partner Demand/ Male Withdraw	3, 273	3.84	0.95	NS

<sup>a</sup>NS = Nonsignificant F level to enter at the .05 level.

physically aggressive men compare to those of men who are distressed, but not physically aggressive. That is, whether a specific communication pattern is particularly characteristic of physical aggression or is equally characteristic of physical aggression and of distress, nonaggression. Hypothesis 8 predicts that men who are physically aggressive toward their partners will report a *greater frequency* of the communication pattern of Male Demand/Partner Withdraw than men who are

**distressed, but not physically aggressive** toward their partners. Hypothesis 9 predicts that men who are physically aggressive toward their partners will report a frequency of the communication pattern of Partner Demand/Male Withdraw that will be *equivalent to* that of men who are **distressed, but not physically aggressive** toward their partners. Research question 4 seeks to examine how the frequency of the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance among men who are physically aggressive toward their partners compare to that of men who are **distressed, but not physically aggressive** toward their partners.

In order to test this hypothesis, the low frequency of physical aggression and high frequency of physical aggression groups were each compared to the **nonviolent toward all** group which was *distressed* ( $n=77$ , score range=4 to 7). Because no comparisons were being made to nondistressed, nonviolent participants they were excluded from this analysis. The participants who were **nonviolent toward partner only** were also excluded from this analysis. Univariate, one-way Analysis of Variance (ANOVA) was used to examine the specific distress-related, post-hoc group differences addressed in hypotheses 8 and 9, and research question 4. The analytic question being addressed by ANOVA is what pattern of significant differences exist among three groups (subgroup as a 3-level factor), but specifically related to the distressed, nonviolent reference group. As before, the Tukey multiple comparison test was employed in order to determine which pairs of subgroups might statistically differ and to adjust for inflated Type I error due to multiple testing.

Table 11 display the results of the ANOVAS, showing means, standard deviations, and omnibus F values for five Avoidance/Withdraw communication patterns addressed in hypotheses 8 and 9, and research question 4. Results failed to confirm hypothesis 8 in that for the pattern of Male Demand/Partner Withdraw, neither of the physically aggressive groups were found to significantly differ from the distressed, but nonviolent group. Results did confirm hypothesis 9 in that for the pattern of Partner Demand/Male Withdraw, both of the physically aggressive groups were found to be statistically equivalent to the distressed, but nonviolent group. In regard to the communication patterns examined in research question 4, results indicated that for Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance, neither of the physically aggressive groups were found to significantly differ from the distressed, but nonviolent group. Overall, these results indicate that *all* of the five Avoidance/Withdraw communication patterns were as likely to occur among the physically aggressive groups as among the distressed, but nonviolent group.

#### Avoidance/Withdraw Communication and the Level of Physical Aggression: Q5

Pearson Correlation was used to address research question 5 which seeks to examine the linear relationship between the **frequency** of the communication patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and the **frequency** of male physical aggression toward female partners. For the purpose of this analysis, the frequency of physical aggression was utilized as a continuous metric variable, in contrast to a grouping variable as before.

Table 11

Summary of Analyses of Variance Comparing Low and High Frequency of Physical Aggression Groups with Nonviolent, Distressed Group on Mean Frequency of Five Avoidance/Withdraw Communication Patterns

<u>Communication Pattern</u>	Physical Aggression Subgroup <sup>a</sup> : <u>M</u> ( <u>SD</u> )			Omnibus <u>F</u>
	<u>1-5 Group</u>	<u>6+ Group</u>	<u>Nonviolent Distressed Group</u>	
Mutual Avoidance	3.7 (2.5)	3.4 (2.2)	3.2 (1.9)	0.53
Unilateral Male Avoidance	4.5 (2.7)	4.1 (2.2)	4.4 (2.9)	0.31
Unilateral Partner Avoidance	4.7 (2.6)	4.9 (2.5)	5.2 (2.6)	0.26
Male Demand/ Partner Withdraw	4.1 (2.7)	4.5 (2.5)	3.2 (2.4)	2.00
Partner Demand/ Male Withdraw	4.0 (2.7)	3.7 (2.0)	3.7 (2.8)	0.35

<sup>a</sup> groups are: (1-5) 1-5 instances of physical aggression toward partner, (6+) 6 or more instances toward partner.

\_\_\_\_\_ underlined indicates that that specific group was significantly different from the Nonviolent, Distressed reference group at the  $p < .05$  level.

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

Table 12 displays the linear correlation coefficients and p values (two-tailed) for five bivariate relationships. Results indicate that only the communication pattern of Male Demand/Partner Withdraw demonstrated a significant **positive** linear association with the frequency of physical aggression ( $r = .16$ ). That is, an *increase* in the frequency of physical aggression was significantly associated with an *increase* in the frequency of Male Demand/Partner Withdraw. The remaining four Avoidance/Withdraw communication patterns were *not* significantly correlated with the frequency of physical aggression.

As an adjunct to the above analysis, the aggregate or combined contribution of all five Avoidance/Withdraw communication patterns to the frequency (i.e. metric, continuous level) of physical aggression was tested and determined. In order to address this issue, standard multiple regression was used. The analytic question being addressed by standard multiple regression is the extent to which the linear combination of all five communication patterns is associated with, or predictive of, the frequency of aggression. Results, displayed in Table 12, indicated that the set of five Avoidance/Withdraw communication patterns was significantly predictive of the frequency of physical aggression  $F(5,268) = 2.1$ ,  $p < .05$ , with a multiple correlation coefficient of .19, accounting for only 3% of the variance in the frequency of physical aggression.

#### Summary of Results Regarding Avoidance/Withdraw Communication

1. Physically aggressive males reported a significantly **greater** frequency of Mutual Avoidance, Unilateral Partner Avoidance, Male Demand/Partner Withdraw, and Partner Demand/Male Withdraw communication in their relationships than did

Table 12

Pearson Product Moment Correlations Between the Frequency of Avoidance/Withdraw Communication Patterns and the Frequency of Physical Aggression

<u>Communication Pattern</u>	<u>Physical Aggression</u>
Mutual Avoidance	.05
Unilateral Male Avoidance	.01
Unilateral Partner Avoidance	.01
Male Demand/Partner Withdraw	.16**
Partner Demand/Male Withdraw	.11
All Avoidance/Withdraw Patterns <sup>a</sup>	.19*

<sup>a</sup> R based on standard multiple regression, with the five variables entered as a block.

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

males who were nonaggressive (i.e. to partners and others). Unilateral Male Avoidance did not significantly differ between physically aggressive and nonaggressive groups. The most sizable difference was found for the pattern of Male Demand/Partner Withdraw, although this was associated with an explained variation of only 8%.

2. No Avoidance/Withdraw patterns were found to significantly discriminate between the low and high frequency physical aggression groups.
3. Males who were physically aggressive to others, but were not aggressive toward partners had a frequency of avoidance/withdraw communication patterns that was

typically *higher* than the nonviolent toward all group, but was *lower* than either physically aggressive group. They did not statistically differ from any other group.

4. The *incremental* frequency of Avoidance/Withdraw communication was significantly positively associated with the *incremental* frequency of physical aggression for only the pattern of Male Demand/Partner Withdraw (.16), although the strength of the association was not strong.
5. Relationship distress was **not** found to moderate the relationship between any Avoidance/Withdraw communication pattern and the occurrence of physical aggression.
6. Of the four Avoidance/Withdraw communication patterns found to occur at a significantly **greater** frequency in the relationships of physically aggressive males, *all* were found to be equally characteristic of physical aggression as distress, nonaggression.

Problem-Solving/Cooperation Communication and the Occurrence of Physical  
Aggression: H10

Univariate, one-way Analysis of Variance (ANOVA) was used to test hypotheses

10. Hypothesis 10 predicts that men who are physically aggressive toward their partners will report *less frequent* use of the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Emotional Expression, and Net Constructive Communication than men who are not physically

aggressive toward their partners. The analytic question being addressed by ANOVA is whether four different levels of physical aggression (subgroup as a 4-level factor), are significantly different on their mean level of each of six Problem-Solving/Cooperation communication patterns noted above (metric variable). As before, the Tukey multiple comparison test was employed in order to determine which pairs of subgroups might statistically differ and to adjust for inflated Type I error due to multiple testing.

Table 13 display the results of ANOVAS, showing means, standard deviations, omnibus F values, and Eta squared for six Problem-Solving/Cooperation communication patterns addressed in hypothesis 10. Results indicate that the mean frequency of each of the six communication patterns were significantly different across groups. Differences across groups accounted for percentage of explained variation ranging from 22% to only 3% in the six communication patterns. In order of decreased explained variation ( $\eta^2$ ), the patterns are: (a) Net Constructive Communication (.22), (b) Mutual Problem-Solving (.09), (c) Unilateral Male Negotiation (.05), (d) Unilateral Partner Negotiation (.04), (e) Unilateral Male Emotional Expression (.03), and (f) Unilateral Partner Emotional Expression(.03). A significance test of the difference between Eta values was applied to the above six patterns, using a two-tailed alpha level of .05 (Cohen & Cohen, 1983, p.57). Results indicated that Net Constructive Communication explained significantly more variance than any of the other patterns. Mutual Problem-Solving explained significantly more variation than each of the two weakest patterns of Emotional Expression, but **did not**

Table 13

Summary of Analyses of Variance Comparing Mean Differences on Problem-Solving/Cooperation Communication Patterns Among Four Subgroups of Physical Aggression

Communication Pattern	Physical Aggression Subgroup <sup>a</sup> : <u>M (SD)</u>				<u>F</u>	<u><math>\eta^2</math></u>
	<u>0 instances</u>	<u>0 partner, 1+ other instances</u>	<u>1-5 instances</u>	<u>6+ instances</u>		
Net Constructive Communication	4.2 (3.1)	2.9 (3.3)	2.3 (3.8)	0.2 (2.5)	25.6***	.22
Mutual Problem-Solving	6.8 (1.5)	6.2 (1.9)	6.3 (1.7)	5.3 (1.7)	8.7***	.09
Unilateral Male Negotiation	3.3 (2.7)	3.2 (2.6)	4.3 (2.4)	4.4 (2.3)	4.2**	.05
Unilateral Partner Negotiation	2.9 (2.3)	3.4 (2.6)	3.8 (2.2)	3.9 (1.9)	4.0**	.04
Unilateral Male Emotional Expression	3.4 (2.6)	3.8 (2.5)	4.0 (2.6)	4.5 (2.4)	2.7*	.03
Unilateral Partner Emotional Expression	3.1 (2.5)	3.5 (2.3)	3.5 (2.5)	4.3 (2.2)	3.4*	.03
All Problem-Solving/Cooperation Communication Patterns <sup>b</sup>					$\chi^2=81.2***$	.27

<sup>a</sup> groups are: (0) zero instances of physical aggression toward partner and zero towards others, (0 partner, 1+ other) zero instances toward partner and 1 or more toward others, (1-5) 1-5 instances of physical aggression toward partner, (6+) 6 or more instances of physical aggression toward partner.

<sup>b</sup> Based upon discriminant function, with the six variables entered as a block  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

explain significantly more variation than each of the two patterns of Negotiation. These patterns of Emotional Expression and of Negotiation were not significantly different from each other in explained variation.

Results of post-hoc comparison tests only partially supported hypothesis 10. First, both the **low and high** frequency physical aggression groups did report significantly *less* Net Constructive Communication than the **nonviolent toward all** group (i.e. partners and others). Second, only the **high frequency** physical aggression group reported significantly *less* Mutual Problem-Solving than the **nonviolent toward all** group. The results regarding the remaining four patterns were contrary to predictions. Specifically, both physical aggression groups each reported significantly *more* Unilateral Partner Negotiation communication than the **nonviolent toward all** group. Only the **high frequency** physical aggression group reported significantly *more* Unilateral Male Negotiation, Unilateral Male Emotional Expression, and Unilateral Partner Emotional Expression communication than the **nonviolent toward all** group. Although these four unilateral patterns of Negotiation and Emotional Expression are statistically significant, the relatively small percentage of variation explained suggests caution regarding their practical significance.

An additional finding informing hypothesis 10 is related to those communication patterns which were found to discriminate between **low frequency** physical aggression

and **high frequency** physical aggression. The **high frequency** physical aggression group was characterized as having significantly *less* Net Constructive Communication and Mutual Problem-Solving communication than the **low frequency** physical aggression group.

One last finding informing hypothesis 10 was that the **nonviolent toward partners only** group reported a frequency for the six communication patterns which was *higher* than the nonviolent toward all group, but was *lower* than either violent group. These group differences, however, were not statistically significant.

As an adjunct to the above analysis, the aggregate or combined contribution of all Problem-Solving/Cooperation communication patterns to the occurrence of interpartner violence was tested and determined. In order to address this issue, standard discriminant function analysis was used. The analytic question being addressed by this procedure is whether a set of multiple communication patterns can significantly discriminate among the four different levels of physical aggression (i.e., identical four groups as above) (subgroup as a 4-level dependent variable). The percentage of variance explained by the communication patterns is indicated by the sum of the squared canonical correlations associated with each discriminant function. Results, displayed in Table 13, indicated that the set of Problem-Solving/Cooperation communication patterns significantly discriminated among different levels of occurrence of aggression  $\chi^2 (18) = 81.2, p < .001$ , accounting for 27% of the variance.

### Problem-Solving/Cooperation Communication and Relationship Distress: Q6 and Q7

Hierarchical discriminant function analysis was used to address research questions 6 which seeks to examine whether relationship distress plays a moderating role in the relationship between the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Expression, and Net Constructive Communication and male physical aggression toward female partners. The primary analytic question being addressed by this procedure is whether there is a significant moderating effect of level of distress on the relationship between a specific communication pattern and the four levels of occurrence of physical aggression. Statistically, this is a test of the interactional effect which is an effect assessed after the main effects have been accounted for. Hierarchical discriminant function analysis was run separately for each of the six communication patterns above, with the occurrence of physical aggression (four-group variable) as the criterion variable. For each analysis, three terms entered as predictor variables: (a) the metric frequency level of the specific communication pattern, (b) the metric level of distress, and (c) the interaction of the level of the communication pattern and the level of distress. Hierarchically, the two main effects terms (i.e. communication pattern, distress) were entered first, followed by the interaction term. The occurrence of a moderating effect is reflected in the interaction term being statistically significant.

Table 14 displays the results of the hierarchical discriminant function analyses, showing the interaction term degrees of freedom, F values necessary to enter and

thereby demonstrate a significant effect, actual F values, and significance levels for six Problem-Solving/Cooperation communication patterns addressed in research question 6. Results confirmed hypothesis 7 in that distress was **not** found to moderate the relationship between the Male Demand/Partner Withdraw nor Partner Demand/Male Withdraw and the occurrence of male physical aggression toward female partners. In regard to research question 3, distress was **not** found to moderate the relationship between the remaining patterns of Mutual Avoidance, Unilateral Male Avoidance, and Unilateral Partner Avoidance and male physical aggression toward female partners. That is, the relationship between each of the six Problem-Solving/Cooperation communication patterns and physical aggression was statistically equivalent *across differing levels* of relationship distress. The direct implication of the results is that the pattern of a greater frequency of Problem-Solving/Cooperation communication (less Net Constructive Communication) among physically aggressive participants relative to nonaggressive participants holds true for those who were relationally distressed and those who were nondistressed.

Research question 7 extends the examination of the role of distress by examining how the frequency of the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Expression, and Net Constructive Communication among men who are physically aggressive toward their partners compare to that of men who are **distressed, but not physically aggressive** toward their partners.

Table 14

Summary of Hierarchical Discriminant Analyses Testing the Moderational (Interactional) Effect of Distress on the Relationship Between Problem-Solving/Cooperation Communication Patterns and Physical Aggression

<u>Communication Pattern</u>	<u>Interaction D.F.</u>	<u>Minimum F to Enter</u>	<u>Interaction F</u>	<u>Interaction p<sup>a</sup></u>
Net Constructive Communication	3, 274	3.84	1.40	NS
Mutual Problem-Solving	3, 274	3.84	0.78	NS
Unilateral Male Negotiation	3, 271	3.84	0.82	NS
Unilateral Partner Negotiation	3, 270	3.84	0.72	NS
Unilateral Male Emotional Expression	3, 270	3.84	0.07	NS
Unilateral Partner Emotional Expression	3, 269	3.84	0.22	NS

<sup>a</sup>NS=Nonsignificant F level to enter at the .05 level.

In order to test this hypothesis, the low frequency of physical aggression and high frequency of physical aggression groups were each compared to the **nonviolent toward all** group which was *distressed* (n=77, score range=4 to 7). Because no comparisons were being made to nondistressed, nonviolent participants they were excluded from this analysis. The participants who were **nonviolent toward partner**

**only** were also excluded from this analysis. Univariate, one-way Analysis of Variance (ANOVA) was used to examine the specific distress-related, post-hoc group differences addressed in research question 7. The analytic question being addressed by ANOVA is what pattern of significant differences exist among three groups (subgroup as a 3-level factor), but specifically related to the distressed, nonviolent reference group. As before, the Tukey multiple comparison test was employed in order to determine which pairs of subgroups might statistically differ and to adjust for inflated Type I error due to multiple testing.

Table 15 display the results of the ANOVAS, showing means, standard deviations, and omnibus F values for six Problem-Solving/Cooperation communication patterns addressed in research question 7. Results indicated that only the **high** frequency physically aggressive males reported significantly *less* Net Constructive communication than their distress, but nonviolent counterparts. That is, a lower frequency of Net Constructive Communication was more characteristic of physical aggression than distress, nonaggression, for the high frequency of aggression group only. The *low* frequency physically aggressive group had a frequency of Net Constructive communication which was statistically equivalent to that of the distressed, nonviolent group. For the remaining five patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, and Unilateral Partner Expression, neither of the physically aggressive groups were found to significantly differ from the distressed,

Table 15

Summary of Analyses of Variance Comparing Low and High Frequency of Physical Aggression Groups with Nonviolent, Distressed Group on Mean Frequency of Six Problem-Solving/Cooperation Communication Patterns

<u>Communication Pattern</u>	Physical Aggression Subgroup <sup>a</sup> : <u>M</u> ( <u>SD</u> )			Omnibus <u>F</u>
	<u>1-5 Group</u>	<u>6+ Group</u>	Nonviolent Distressed <u>Group</u>	
Net Constructive Communication	2.3 (2.8)	<u>0.24</u> (2.5)	2.4 (3.0)	12.3***
Mutual Problem-Solving	6.3 (1.9)	5.3 (1.9)	5.6 (1.8)	5.4**
Unilateral Male Negotiation	4.3 (2.4)	4.4 (2.3)	4.3 (3.0)	0.03
Unilateral Partner Negotiation	3.8 (2.3)	3.9 (1.9)	3.3 (2.4)	0.66
Unilateral Male Emotional Expression	4.1 (2.7)	4.5 (2.4)	4.0 (2.4)	0.56
Unilateral Partner Emotional Expression	3.5 (2.5)	4.3 (2.2)	3.8 (2.5)	2.1

<sup>a</sup> groups are: (1-5) 1-5 instances of physical aggression toward partner, (6+) 6 or more instances toward partner.

\_\_\_\_\_ underlined indicates that that specific group was significantly different from the Nonviolent, Distressed reference group at the  $p < .05$  level.

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

but nonviolent group. That is, these five patterns were found to be equally characteristic of physical aggression and distress, nonaggression.

Problem-Solving/Cooperation Communication and the Level of Physical Aggression:

#### Q8

Pearson Correlation was used to address research question 8 which seeks to examine the linear relationship between the **frequency** of the communication patterns of Mutual Problem-Solving, Unilateral Male Problem-Solving, Unilateral Partner Problem-Solving, Unilateral Male Emotional Expression, Unilateral Partner Expression, and Net Constructive Communication and the **frequency** of male physical aggression toward female partners. For the purpose of this analysis, the frequency of physical aggression was utilized as a continuous metric variable, in contrast to a grouping variable as before.

Table 16 displays the linear correlation coefficients and p values (two-tailed) for six bivariate relationships. Specifically, five of the six Problem-Solving/Cooperation communication patterns demonstrated a significant linear association with the frequency of physical aggression. These patterns, in order of decreasing magnitude ( $r$ ) are: Net Constructive Communication (-.33), Mutual Problem-Solving (-.22), Unilateral Partner Emotional Expression (.19), Unilateral Male Emotional Expression (.12), and Unilateral Partner Negotiation (.12). An *increase* in the frequency of physical aggression was significantly associated with a *decrease* in the frequency of Net Constructive Communication and Mutual Problem-Solving. In contrast, an *increase* in the frequency of physical aggression was significantly associated with an

Table 16

Pearson Product Moment Correlations Between the Frequency of Problem-Solving /Cooperation Communication Patterns and the Frequency of Physical Aggression

<u>Communication Pattern</u>	<u>Physical Aggression</u>
Net Constructive Communication	-.33***
Mutual Problem-Solving	-.22***
Unilateral Male Negotiation	.08
Unilateral Partner Negotiation	.12*
Unilateral Male Emotional Expression	.12*
Unilateral Partner Emotional Expression	.19**
All Problem-Solving/Cooperation Patterns <sup>a</sup>	.35***

<sup>a</sup> R based on standard multiple regression, the six variables entered as a block.

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

*increase* in the frequency of Unilateral Male Emotional Expression, Unilateral Partner Emotional Expression, and Unilateral Partner Negotiation. The communication pattern of Unilateral Male Negotiation was *not* significantly correlated with the frequency of physical aggression.

As an adjunct to the above analysis, the aggregate or combined contribution of all six Problem-Solving/Cooperation communication patterns to the frequency (i.e. metric, continuous level) of physical aggression was tested and determined. In order to address these issues, standard multiple regression was used. The analytic question being addressed by standard multiple regression is the extent to which the

linear combination of all six communication patterns is associated with, or predictive of, the frequency of aggression. Results, displayed in Table 16, indicated that the set of Problem-Solving/Cooperation communication patterns was significantly predictive of the frequency of physical aggression  $F(6,265)=6.1, p < .001$ , with a multiple correlation coefficient of .35, accounting for 12% of the variance in the frequency of physical aggression.

#### Summary of Results Regarding Problem-Solving/Cooperation Communication

1. Physically aggressive males reported a significantly **lower** frequency of Net Constructive Communication in their relationships than did males who were nonaggressive (i.e. to partners and others). Only *high frequency* physically aggressive males reported a significantly **lower** frequency of Mutual Problem-Solving communication in their relationships than did males who were nonaggressive. Physically aggressive males also reported a significantly **greater** frequency of Unilateral Male Negotiation, Unilateral Partner Negotiation, Unilateral Male Emotional Expression, and Unilateral Partner Emotional Expression communication in their relationships than did males who were nonaggressive. However, the most sizable differences were found for the patterns of Net Constructive Communication and Mutual Problem-Solving.
2. *High frequency* physically aggressive males reported a significantly **lower** frequency of Net Constructive and Mutual Problem-Solving communication in their relationships than did *low frequency* physically aggressive males.
3. Males who were physically aggressive to others, but were not aggressive toward

partners had a frequency of problem-solving/cooperation communication patterns that was typically *higher* than the nonviolent toward all group, but was *lower* than either physically aggressive group. However, they did not statistically differ from any other group.

4. The *incremental* frequency of Problem-Solving/Cooperation communication was significantly associated with the *incremental* frequency of physical aggression for all patterns except Unilateral Male Negotiation, which had no significant association. The most sizable correlations were for Net Constructive Communication (-.33), Mutual Problem-Solving (-.22).
5. Relationship distress was **not** found to moderate the relationship between any Problem-Solving/Cooperation communication pattern and the occurrence of physical aggression.
6. Of the two Problem-Solving/Cooperation communication patterns found to occur at a significantly **lower** frequency in the relationships of physically aggressive males, and the four patterns found to occur at a significantly **greater** frequency, only Net Constructive Communication was found to be significantly different than that of distressed, but nonviolent males. Specifically, only the *high frequency* physical aggression group reported significantly **less** Net Constructive Communication than their distressed, but nonviolent counterparts.

## CHAPTER 5

### DISCUSSION

#### Summary of Findings and Implications

The primary purpose of this investigation was to examine nine Verbal Aggression, five Avoidance/Withdraw, and six Problem-Solving/Cooperation communication patterns and determine their association with the occurrence and frequency of male physical aggression toward female partners. The secondary purpose of this investigation was to examine the role of relationship distress in understanding the association between these twenty communication patterns and the occurrence and frequency of male physical aggression toward female partners. The overall conclusion of this investigation is that conflict-based communication is importantly related to domestic violence and that these communication patterns are related to domestic violence relatively independent of the level of relationship distress. Furthermore, certain communication patterns appear to be particularly characteristic of physically aggressive relationships in contrast to distressed, nonaggressive relationships. Others appear to be equally characteristic of either physical aggression or distress-nonaggression.

The research reported here is exploratory in the sense that the purpose was to identify, in contrast to explain, the linkage between the communication patterns examined and male physical aggression toward female partners. In the discussion to follow, some speculation will be proposed which attempts to explain the pattern of findings, as well as to further the research agenda. In attempting to explain the

association of conflict-based, communication patterns and physical aggression, a number of explanatory approaches or theoretical frameworks will be employed. Research in the etiology of domestic violence strongly supports multiple determinants and a multidimensional explanatory approach (See Feldman & Ridley, 1995). In the context of the findings to be presented, the explanatory frameworks which will be employed include: (a) conflict theories emphasizing the important role of conflict of interests, orientation to conflict, and particularly conflict response behavior, (b) social learning theory of aggression emphasizing the role of early exposure to aggressive models and "overlearned" behavioral scripts, (c) social cognitive theories emphasizing the role of distorted, biased, and dysfunctional expectations, assumptions, and interpretations, (d) communication theories emphasizing reciprocal interaction processes, constructive and destructive communication processes, and communication skill deficits, and (e) patriarchal power and control theories emphasizing non-egalitarian attitudes toward women and male domination of women as a subservient class.

Related to the primary purpose of this investigation, verbally aggressive communication patterns, in aggregate, contributed the most to explaining differences in the *level of occurrence* of physical aggression (33%), with Problem-Solving/Cooperation communication patterns explaining somewhat less (27%), and Avoidance/Withdraw communication patterns explaining relatively little (13%). As predicted, each one of the nine patterns of verbal aggression investigated was found to be significantly associated with the *level of occurrence* of physical aggression. These

nine patterns were: Mutual Verbal Aggression, Unilateral Male Verbal Aggression, Unilateral Partner Verbal Aggression, Male Threaten/Partner Back Down, Partner Threaten/Male Back Down, Male Blame/Partner Defend, Partner Blame/Male Defend, Male Pressure/Partner Resist, and Partner Pressure/Male Resist. Also as predicted, each one of the six patterns of problem-solving/cooperation investigated was found to be significantly associated with the *level of occurrence* of physical aggression. These six patterns were: Mutual Problem-Solving, Net Constructive Communication, Unilateral Male Negotiation, Unilateral Partner Negotiation, Unilateral Male Emotional Expression, and Unilateral Partner Emotional Expression. **Four** of the five patterns of Avoidance/Withdraw were found to be significantly associated with the *level of occurrence* of physical aggression, as predicted. These five patterns were: Mutual Avoidance, Male Demand/Partner Withdraw, Partner Demand/Male Withdraw, and Unilateral Partner Avoidance. However, contrary to prediction, the Unilateral Male Avoidance pattern was found not to be associated with the *level of occurrence* of physical aggression.

The same pattern noted above was also found regarding *incremental linear changes in the frequency* of physical aggression as a function of *incremental linear changes in the frequency* of the communication patterns. Verbally aggressive communication patterns, in aggregate, explained the most variance in the *frequency* of physical aggression (15%), with Problem-Solving/Cooperation communication patterns explaining somewhat less (12%), and Avoidance/Withdraw communication patterns explaining the least (3%). The ability of the communication patterns to

predict *incremental, linear changes* in the frequency of physical aggression was substantially **poorer** than their ability to differentiate among nonaggressive, low frequency of aggression, and high frequency of aggression groups. While nineteen of twenty communication pattern variables were found to significantly differentiate among groups, only thirteen of twenty were found to have a significant linear relationship with the frequency of physical aggression. The communication patterns which demonstrated the greatest magnitude of effect, however, remain the same in explaining both the *level of occurrence* and the *linear change in the frequency* of physical aggression. A more detailed discussion of the communication patterns most strongly associated with the level of occurrence and frequency of physical aggression will be presented below.

A peripheral, although interesting issue related to the primary findings above was the group of males who were physically aggressive to *others* (e.g., ex-partners, friends, relatives, acquaintances, strangers), but were **not** aggressive toward *partners*. This group reported a frequency across communication patterns that was typically in-between that of the nonviolent toward all and the physically aggressive groups. Differences between groups were usually not statistically significant, with a few notable exceptions. These men highly resembled the men who were nonviolent toward all in having less Mutual Aggression, Unilateral Partner Verbal Aggression, and Male Threaten/Partner Back Down communication than one or both of the physically aggressive toward partners groups. Conversely, these men strongly resembled those that were physically aggressive toward partners in having a likelihood

of Unilateral Male Verbal Aggression that was statistically equivalent to them. Logically, if no physical aggression has occurred in the relationship, one would expect that relationship-specific communication patterns would reflect this by paralleling those of the nonviolent toward all group. Verbal aggression should be most indicative of this, as was the case for the three verbal aggression patterns noted above. However, the fact that these men were violent towards others during the same period of time they were nonviolent towards partners still appears to be reflected in their communication interaction with their partner in at least two ways. First, they are more likely to call their partner names, ridicule her, swear at her, or attack her character, competence, or appearance, though it has not been associated with partner violence. Second, across certain other verbally aggressive communication patterns, and most all avoidance and problem-solving communication patterns, they operate in a realm which lies somewhere in between that of completely nonviolent men and men who are physically violent toward their partners. It may be that these men are at risk of exhibiting violence toward partners at some time in the future.

In regard to the secondary purpose of this investigation, the role of relationship distress was investigated in two ways in this study. First, the moderating effect of relationship distress was examined. As predicted, distress was not found to significantly moderate the relationship between any of the twenty conflict-based, communication patterns and physical aggression. That is, given that a specific communication pattern was found to occur significantly **more** (e.g., mutual aggression, demand/withdraw) or **less** often (e.g., mutual problem-solving) in

physically aggressive relationships than in nonviolent relationships, that profile was true for relationships evaluated as distressed, as well as those evaluated as nondistressed. Interestingly, distress was often associated with an increased occurrence (e.g., verbal aggression) or decreased occurrence (e.g., problem-solving) of certain patterns for *both* physically aggressive and nonaggressive relationships (i.e., main effect of distress). However, distress did not significantly change the *relative* relationship between a specific communication pattern and physical aggression (i.e., interactional effect of distress). This supports the idea that these communication patterns are related to domestic violence regardless of the way that relationship distress is functioning in a more general sense. Knowing if a relationship is distressed or not does not help clarify the nature of the relationship between communication and domestic violence. It appears that communication patterns operate across a wide range of relational contexts, from very distressed to non-distressed, and these patterns override this context as they are linked to domestic violence. For example, a couples does not need to be in a distressed relationship in order to be aggressive toward the partner when the communication patterns are negative, such as with mutual verbal aggression.

The second way in which the role of distress was examined involved determining how physically aggressive relationships differed from distressed, but nonaggressive relationships. The intent was to ascertain if certain communication patterns were *particularly characteristic of* physical aggressive relationships, while other patterns were *equally likely* to occur in either physically aggressive relationships or in

distressed, nonaggressive relationships. In fact, certain communication patterns were found to be particularly characteristic of physical aggression in contrast to distress, nonaggression, while others were found to be equally characteristic of either physical aggression or distress, nonaggression. The importance of such findings is an enhanced ability to understand the differences between physically aggressive relationships and those which are distressed, but not physically aggressive in terms of risk markers, differential diagnosis, and the focus of effective intervention. A further discussion of the specific findings regarding the role of relationships distress will be presented below.

#### Verbal Aggression Communication Patterns

While all nine verbally aggressive patterns were significantly associated with the occurrence of physical aggression, four specific patterns most strongly characterized relationships where males were physically aggressive, each explaining 10% or more of the variance. They were Mutual Verbal Aggression (22%), Male Threaten/Partner Back Down (16%), Unilateral Male Verbal Aggression (15%), and Unilateral Partner Verbal Aggression (17%).

Mutual aggression involved both partners blaming each other, accusing, criticizing each other, threaten each other with something negative, calling each other names, ridiculing each other, swearing at each other, or attacking each others' character, competence, or appearance. Mutual verbal aggression was substantially more characteristic of physically aggressive relationships (low and high frequency) than relationships where no violence had occurred. Specifically, this pattern was

almost 2 times as likely to occur among physically aggressive relationships than those where no violence had occurred. Moreover, a significantly greater likelihood of engaging in mutual verbal aggression discriminated those relationships with a *high* frequency of male physical aggression from those with a *low* frequency of male physical aggression. Additionally, incremental increases in mutual verbal aggression were moderately correlated with incremental increases in physical aggression. This set of findings supports conceptual work in the areas of conflict management and interpersonal communication that reciprocal verbal aggression is likely to increase the risk of one or both individuals resorting to physical aggression. Although it cannot be known from this research how verbal aggression specifically acts as a catalyst for male physical aggression, observational studies suggest that attack-counterattack interactional communication sequences appear to be far more emotionally and behaviorally escalating than attack-defend or attack-withdraw communication sequences. The large body of research on marital distress and conflict have also established that interactional, in contrast to individual processes, contribute to conflict escalation in several ways. First, couples tend to "lock in" to dominant reciprocal response patterns, such as cross-complaining and invalidation loops (Gottman, 1979). Second, arguments tend to progress through three levels of escalation, the issue level, the personality level, and the relationship level, each more difficult to address and contain (Stuart, 1980). Third, there is a high probability of retaliation in order to save face and prevent future attacks, particularly when the receiver believes the initial attack was intentional and illegitimate (Felson, 1984). Fourth, the negative

physiological and affective arousal of one partner, generated in verbally aggressive interactions, becomes mirrored in the other partner (Levinson & Gottman, 1983). Finally, Gottman's (1995) work on couples, based on direct observation of conflict-based communication, has identified a specific type of couple, labeled *nonregulated*, which is associated with significantly lower marital satisfaction and a higher risk of divorce. These couples are characterized by four interactional processes: reciprocated complaining and criticizing, contempt, defensiveness, and stonewalling. These processes have been observed to be related in a cascading fashion, in that the first increases the likelihood of the second which increases the likelihood of the third, etc.

Unilateral male verbal aggression involved the man calling the partner names, ridiculing her, swearing at her, or attacking her character, competence, or appearance, while she does not do the same. As was the case with mutual verbal aggression, this pattern was substantially more characteristic of physically aggressive relationships (low and high frequency) than nonviolent relationships. Specifically, this pattern was between 1.5 and 2 times as likely to occur among physically aggressive relationships than those where no violence had occurred. Moreover, a significantly greater likelihood of engaging in unilateral male verbal aggression discriminated those relationships with a *high* frequency of male physical aggression from those with a *low* frequency of male physical aggression. Additionally, incremental increases in unilateral male verbal aggression were moderately correlated with incremental increases in physical aggression. This set of findings indicates that some portion of verbally aggressive encounters are marked by male verbal aggression

without reciprocal aggressive exchanges, yet still increasing the likelihood of subsequent male physical aggression. Such findings are consistent with conceptual work in the cognitive-behavioral treatment for domestic violence which has found that a range of dysfunctional thoughts, expectations, and interpretations of situations often serve to escalate anger arousal and verbally aggressive behavior. Early exposure to violence in the family of origin among domestically violent males has been found to promote both the development of a hostile attribution bias and the development of an insecure adult attachment style. In both, the trigger for physical aggression may often be more tied to internal states (e.g., anxious, fearful of abandonment) or faulty cognitive interpretations (e.g., malicious intent, impending potential harm) than actual observable provoking behavior on the part of female partners. Social learning theory would also suggest they may be playing out an "overlearned" script of violent behavior without consciously responding to overt partner behavior.

The third pattern whereby the male threatens something negative, while the partner gives in or backs down was found to be substantially more characteristic of physically aggressive relationships (low and high frequency) than nonviolent relationships. Specifically, this pattern was between 1.5 and 2.5 times as likely to occur among physically aggressive relationships than those where no violence had occurred. Additionally, incremental increases in this pattern were found to moderately correlate with incremental increases in physical aggression. From the perspective of interpersonal conflict theories, individuals and dyads seek to further their own interests and to resolve inevitable conflicts of interest. From this

perspective, domestic violence can be viewed as a powerful mode of advancing one's interests, especially when other modes of pursuing individual interests break down due to faulty conflict management processes, skills, or options. As mentioned earlier, Roloff (1996) suggested several conditions under which verbal aggression would more likely lead to physical aggression. One relevant condition relates to the disinhibiting factors operating on an individual's inherent ability to physically overpower another, such as experiencing power and force as an effective tool to promote change in the other partner. While threats may suffice in getting one's way or gaining control, Roloff suggests that subsequent noncompliance or resistance by a partner may well be viewed as a challenge to one's sense of control, requiring the escalation of tactics. Finally, this pattern of male threaten/female back down is prototypic of feminist explanations of domestic violence where patriarchal power and control over a woman maintains a man's dominant position within the dyad or family and also serves to keep the women feeling fearful and dependent.

The last pattern of unilateral partner verbal aggression has not been investigated to date and was examined here in the context of a research question, given the lack of rationale for its impact or direction. The pattern involved the female partner calling the man names, ridiculing him, swearing at him, or attacking his character, competence, or appearance, while he does not do the same. Although this pattern was less likely to occur than mutual verbal aggression or unilateral male verbal aggression, it was significantly more likely to occur in physically aggressive relationships (low and high frequency) than in nonviolent relationships. Specifically,

this pattern was approximately 2 times as likely to occur among physically aggressive relationships than those where no violence had occurred. This may be the case because a female partner in a physically aggressive relationship may look for times at which to vent their frustrations or to voice their complaints when male partners are not as likely to be verbally or physically aggressive (e.g., good mood, too tired, preoccupied). Cognitive attribution explanations would suggest that at such times, ironically, a man may be more likely to interpret her behavior as provoking without cause, believe that she started the conflict in the face of his doing nothing to provoke it. Subsequently, he may then strengthen his rationale that she is deserving of punishment or that he must get back at her.

As noted earlier, an important aspect of the role of distress involved determining how physically aggressive relationships differed from distressed, but nonaggressive relationships. In the case of verbally aggressive patterns, all nine patterns were predicted to occur with greater likelihood among violent relationships, relative to *distressed, nonviolent* relationships. However, only five patterns were found to be particularly characteristic of relationships with physical aggression. Two were characteristic of both the low and the high physically aggressive relationships. They were Male Threaten/Partner Back Down, and Partner Threaten/Male Back Down. It appears that what distinguishes both low and high physically aggressive relationships from distressed, nonviolent relationships is their significantly greater likely to engage in threatening the other with something negative, while the other backs down or gives in. Three other patterns were characteristic of only the high frequency of aggression

group. They were Mutual Verbal Aggression, Unilateral Male Verbal Aggression, and Unilateral Partner Verbal Aggression. That is, what distinguishes these high frequency of aggression relationships from their distressed, nonaggressive counterparts is their significantly greater likelihood of engaging in a) mutual blaming, accusing, criticizing, threatening, name calling, ridiculing, swearing, and mutual attacking of character, competence, or appearance, and (b) name calling, ridiculing, swearing, and attacking character, competence, or appearance perpetrated by males only, at some points in times, and by partners only, at other points in time.

Contrary to prediction, the patterns of Male Blame/Partner Defend, Partner Blame/Male defend, Male Pressure/Partner Resist, and Partner Pressure/Male Resist were as likely to be associated with distressed, nonviolent relationships as with violent relationships, both low and high frequency. This finding is consistent with several observational studies which found that an interaction pattern of attack-defend is less escalating and less often associated with physical aggression than the attack-attack pattern (Burman, John, & Margolin, 1992; Burman, Margolin, & John, 1993; Margolin, John, & Gleberman, 1988). It may be that when partners defend or resist it may send a message that pushing your way on the other is not going to be easy or allowed. While these four patterns are negative and were found to be associated more often with physically aggressive than nonaggressive relationships, they may be far less escalating in nature. Therefore, it may be expected that they were found to be no more characteristic of physical aggression than of distress, nonaggression.

The above findings are important in that while certain verbally aggressive

patterns are more characteristic of physically aggressive relationships than nonaggressive relationships, they may **not** be more characteristic of physically aggressive relationships than *distressed, nonviolent* ones. This may be the case because relationship distress, in and of itself, is often associated with an increased likelihood of verbal aggression, independent of physical aggression. Overall, **all** violent relationships were characterized as having more threatening and subsequent backing down communication than either their *nondistressed* or *distressed*, nonviolent counterparts. Relationships with a **high** frequency of male violence, specifically, were characterized as having more **mutual** and more **unilateral** forms of criticizing, ridiculing, name calling, and threatening than either their *nondistressed* or *distressed*, nonviolent counterparts.

#### Problem-Solving/Cooperation Communication Patterns

While all six of the Problem-Solving/Cooperation patterns were significantly associated with the occurrence of physical aggression, by far the strongest pattern was that of Net Constructive Communication (22%), followed by Mutual Problem-Solving (9%). The remaining four patterns were relatively weak correlates, explaining 5% or less of the variance in the occurrence of physical aggression. Mutual problem-solving involved both partners trying to discuss the problem, expressing their feelings in words to each other, and offering possible solutions or compromises. Net Constructive Communication was a measure of the extent to which partners engaged in the *constructive* communication behaviors just noted **more often** than they engaged in the *destructive* communication behaviors of mutual blaming, accusing, criticizing,

threatening with something negative, name calling, ridiculing, swearing, and attacking each others' character, competence, or appearance. Net Constructive Communication is therefore a derived "pattern" which assesses the net frequency of mutually constructive communication behavior, above and beyond that of mutually destructive communication behavior. For some participants, of course, total *destructive* communication may have occurred as often, or more often, than total *constructive* communication, resulting in either no Net Constructive Communication or a **deficit** (i.e., negative) amount of Net Constructive Communication.

There was significantly **less** Net Constructive Communication in physically aggressive relationships (low and high frequency) than in nonviolent relationships. Specifically, there was about **half** as much Net Constructive Communication among the *low* frequency of physical aggression relationships than among nonviolent relationships. However, there was **twenty times less** Net Constructive Communication among the *high* frequency of physical aggression relationships than among nonviolent relationships. For Mutual Problem-solving, only relationships with a *high* frequency of physical aggression had significantly **less** mutual Problem-Solving than nonviolent relationships; *low* frequency of physical aggression relationships did not differ from nonviolent relationships. **Less** Net Constructive Communication and **less** Mutual Problem-Solving, however, did discriminate the *high* frequency aggressive relationships from the *low* frequency aggressive relationships. Finally, incremental *decreases* in both Net Constructive Communication and Mutual Problem-Solving were each moderately correlated with incremental *increases* in physical

aggression. It is also important to note here that, although found to be weak correlates, unilateral negotiation patterns (i.e., where one partner attempted to negotiate, compromise and offer solutions and other did not), were more likely to occur in relationships with physical aggression than in nonviolent relationships.

As noted earlier, an important aspect of the role of distress involved determining how physically aggressive relationships differed from distressed, but nonaggressive relationships. Only Net Constructive Communication was found to be particularly characteristic of physically aggressive relationships, and specifically the *high* frequency of physically aggression relationships. What appears to distinguish these particular relationships from distressed, nonviolent relationships is the relatively **equal likelihood** of occurrence of mutual verbal aggression relative to mutual problem-solving. That is, on average, these relationships were characterized as having as much overall mutually destructive communication as they had overall mutually constructive communication.

From these findings it would appear that mutual Problem-Solving/Cooperation processes, in contrast to unilateral process, are most important as correlates of physical aggression. Furthermore, although decreased mutual problem-solving communication *alone* is a significant factor in physical aggression, the *relative ratio* of mutual constructive to destructive process appears to play a far more substantial role. On average, among the *nonviolent* relationships, mutual problem-solving was **2.5** times more likely to occur than mutual verbal aggression, while among the *low frequency of aggression* relationships it was only **1.5** times as likely to occur. But

among the *high frequency of aggression* relationships, mutual problem-solving and mutual verbal aggression were about **equally likely** to occur, on average. Moreover, among these high frequency of aggression relationships, more than one-third of the participants had *negative* values for the Net Constructive Communication pattern variable, indicating **more** mutual verbal aggression than mutual problem-solving. Interestingly, this finding parallels Gottman's work on divorce and marital satisfaction indicating that a key predictor of outcomes is the *ratio* of positive to negative exchanges, rather than the frequency of positives or negatives alone. Gottman's work on couple types also suggests that certain types of successful, *regulated* couples are highly volatile, confrontive, conflict engaging, and emotional. However, in contrast to their unsuccessful, *nonregulated* counterparts, these couples express a lot of negativity, but offset it with a lot of positivity. It appears that the mutual communication processes comprising discussion of problems, solutions, compromises, and feelings are important to the mix of communication patterns that help explain domestic violence. Couples who can make some effort to cooperatively work on problem-solving of issues might help create a social and psychological environment that may insulate them against behavior that may perpetuate domestic violence. It may also help to sustain a generalized "positive sentiment" within the relationship, even when the relationship interaction patterns have negative components present.

#### Avoidance/Withdraw Communication Patterns

Four of the five patterns of Avoidance/Withdraw were significantly associated with the occurrence of physical aggression. However, none of these patterns were

strongly associated with the occurrence of physical aggression, each explaining 8% or less of the variance in physical aggression. Additionally, none of the five patterns were found to significantly discriminate between low frequency and high frequency physical aggression groups. The strongest pattern was that of Male Demand/Partner Withdraw, which accounted for about 8% of the variance in physical aggression. This pattern involves the man repeatedly complaining and demanding while the female partner withdraws, becomes silent, or refuses to discuss the matter further. As predicted, male Demand/Partner Withdraw communication was significantly more characteristic of physically aggressive relationships (low and high frequency) than relationships where no violence had occurred. Specifically, this pattern was 1.5 times as likely to occur among physically aggressive relationships than those where no violence had occurred. Additionally, incremental increases in Male Demand/Partner Withdraw communication were significantly correlated with incremental increases in physical aggression, although weakly.

As noted earlier, an important aspect of the role of distress involved determining how physically aggressive relationships differed from distressed, but nonaggressive relationships. The two hypotheses posed in this regard were related to the two demand-withdraw patterns. It was predicted that the Male Demand/Partner Withdraw pattern would be *more* characteristic of physically aggressive relationships than distressed, nonviolent relationships, while the Partner Demand/Male Withdraw be *equally* characteristic of both. The primary finding was that all five patterns of Avoidance/Withdraw were **equally** likely to occur among relationships with physical

aggression and relationships which were distressed, nonviolent. That is, all patterns appeared to be equally characteristic of either relationships distress or physical aggression.

It would appear from these findings that few of the Avoidance/Withdraw patterns play an important role in physical aggression, with the male demand/Partner Withdraw being a modest exception. This specific finding is consistent with the single empirical study on demand-withdraw patterns indicating that Male Demand/Partner Withdraw does play a role in physical aggression and a more important role than female demand/male withdraw (Babcock, Waltz, Jacobson, and Gottman, 1993). However, the male demand/female withdraw pattern, along with each of the other patterns, appears to be equally characteristic of distressed, nonviolent relationships as it is of violent relationships. The overall lack of substantive findings regarding the role of avoidance/withdraw may relate to the contradictory functions of avoidance and withdraw behavior in the context of physical aggression. As noted earlier, a partner's avoidance and withdraw behavior has been hypothesized to both *increase* the likelihood of physical aggression due to the build up of animosity and lack of problem solving, and to *decrease* the likelihood of physical aggression due to the interruption of potentially escalating verbal aggression. The current lack of substantive findings may reflect these two opposing functions, operating within or across relationships, serving to "cancel" each other out. Additionally, while withdraw may serve a de-escalating function in a conflict process, it may not prevent the occurrence of physical aggression, only reduce its intensity or

delay it.

### Limitations

Although the findings of this investigation are noteworthy, the results should be interpreted with caution because of at least four limitations. The first limitation is associated with the use of a self-report method of assessment. Inherent to the self-report assessment method are a variety of response biases and reactivity issues such as social desirability, faking, selective retrieval, inaccuracy of retrospective reports, over-rater or under-rater bias, and acquiescence/proneness to agree response sets. In regard to the current study, the use of self-report may have weakened the study for several reasons. First, there is consistent evidence that domestically violent men tend to both minimize and deny the occurrence, severity, and consequences of their physically aggressive behavior (Dutton, 1986; Ptacek, 1988; Riggs, Murphy, & O'Leary, 1989; Wolf-Smith & LaRossa, 1992), and the possibility exists that this was occurring here. Interestingly however, 53% of participants reported at least one instance of physical aggression and an average of 20.8 instances during the last year. Still, a pattern of minimization rather than denial may have occurred. Another concern regards the accuracy of retrospective reports of domestically abusive behavior. For some participants, the six month period being recalled was as much as 6-12 months from the time of their completing the questionnaire. Additionally, about 25% of participants were reporting on a relationship which had recently ended and it is quite possible that biases associated with a negative breakup may have influenced their self-reports. The most general weakness of the use of self-report in this study is

that the primary behaviors being measured, aggression and communication, are presumed to be overt, objective properties of the individual(s). However, by definition, a self-report method of assessment can only measure a participant's *perception* or *appraisal* of behavior. The concern that an individual's perception of behavioral events may be discrepant from "objective reality" is supported by historically low convergent validity between self-report and observational evaluations of marital events. This tends to be case, in large part, because self-report taps an insiders' view of events while behavioral observations tend to tap an outsiders' view. For this reason, it may be unrealistic to expect them to coincide. Most scholars assert that both self-report and observational methods are valid and useful ways of assessing information within a close relationships (Surra & Ridley, 1991). The validity of self-report approaches has received increasing acceptance due to at least three factors. The first factor is related to an increased recognition that perceptions are essential to the measurement of close relationships. The second factor is related to the resurgence of interest in cognitive process in psychology. The third factor is related to a variety of identified limitations in the use of observation, particularly when used to sample low base-rate and/or private behaviors. (Wampler, 1990). Given that each method has its own limitations and associated method error, a multi-method approach has been recommended by most scholars (Houts, Cook, & Shadish, 1986; Surra & Ridley, 1991; Wampler, 1990). In the context of this study, a multi-method approach would result in employing an observational assessment component, utilizing structured interviews, and collecting data on physical aggression from "objective" secondary

sources (e.g., court records, police records). The use of multiple assessments methods would reduce the common measurement bias associated with the reliance on only self-report assessment of variables. However, self-report assessment would remain vital to this investigation for at least two reasons. First, in regard to the assessment of physical aggression, there are numerous practical difficulties in collecting observational data on physical aggression, including issues of low base rate of occurrence, and issues of reactivity to observational monitoring. In regard to communication patterns, the different numbers of patterns, and their mutual and unilateral forms would be virtually impossible to observe within a limited time period. Second, in regard to the assessment of communication patterns, subjective appraisals are integral to identifying and operationally defining specific patterns. Although communication patterns are represented by overt, behavioral interchanges, a participant's subjective evaluation is essential to determining, for example, exactly what threatening or complaining behavior is, or whether someone got defensive, or was being pressured. The clear, overt act of being called "a jerk" by one's partner, for example, may be evaluated by the other person as a teasing statement, or may be perceived to be a highly derogatory statement, depending on their knowledge of the context, personal styles, relational history, and mood. In fact, a number of studies have found that observers consistently rate communication interaction events more negatively than participants, in large part because communication has subjective, idiosyncratic meaning for participants while observers tap only conventionalized meaning (See Surra & Ridley, 1991).

Two factors may serve to mitigate some of the methodologic weaknesses detailed above. First, the current study and the study questionnaire was not framed as an investigation of domestic violence, but rather as a study about normal relationship conflict and disagreements. Information on physical aggression was couched within a broader questionnaire (2 data forms out of 15) asking respondents about a wide range of non-domestic violence behavior and relationship attributes, both positive and negative. The second mitigating factor is that physical aggression and communication pattern information were both assessed with *behavioral* self-report instruments. In contrast to more traditional self-report instruments, they ask participants to respond to items which define targets in external, specific, concrete, and discrete behavioral terms, in order to reduce the reliance on subjective appraisals. Such instruments bridge the gap between traditional self-report and behavioral methods and have been found to demonstrate far better convergent validity between subjective "insider" and objective "outsider" reports. (Christensen, 1987b; Olson, 1977). Some support for this, in regard to the measurement of communication patterns, is found in a comparison of spouses' self-reports of constructive communication using the CPQ with observer ratings of constructive communication during two videotaped problem-solving discussions (Heavey, Larson, Christensen, and Zumtobel, 1996). The convergent validity was found to be moderately high, based upon correlations of .70 for husbands and .62 for wives

A second limitation of the current study is associated with the use of a relatively long questionnaire task. The data collected in this study were part of a larger set of

data collected from a single questionnaire which encompassed 15 discrete data forms. This could have increased the likelihood of fatigue associated with data presented toward the end of the questionnaire, in particular, and could also have elicited a response set related to the sequencing of data forms. No attempt was made to counterbalance the sequence of data forms within the larger questionnaire in order to later assess the effects of the questionnaire task on participants' responses. This was not done, in part, because of the negative impact it would have had on the logical sequence of data forms. Data within the overall questionnaire was logically organized in two ways. First, based on the components of the conflict model, information was collected on conflicts of interest first, followed by orientations to conflict, then conflict responses, and finally conflict outcomes. Second, for logical reasons, data forms which were specific to the target relationship were clustered together and proceeded a smaller set of data forms asking for information across different relationships and people (e.g., adult attachment style). One possible mitigating factor associated with the use of a relatively long questionnaire task was that within the larger questionnaire, data collected specific to this investigation was positioned relatively early in the sequence. Specifically, demographic information was positioned first, the ABI assessing physical aggression was positioned second, and the CPQ assessing communication patterns was positioned fifth. Additionally, participants were monitored closely by staff knowledgeable about the questionnaire and interceded at all points to answer questions and observe the participants closely to ensure they were not distracted from the task.

A third limitation of this study was that data was collected from males only. Although the dyadic relationship can be studied in various ways, with one or more informants, many scholars would argue that "true" relational data must be based on both partners as informants. Asking only one informant to report on their own behavior, the behavior of a partner, and on a pattern of interaction between them, as was the case in this study, has several weaknesses. First, it does not allow for assessing the degree of bias and the response sets associated with a male's reporting of his own physically aggressive behavior. Second it does not allow for assessing various biases associated with reporting communication behavior, particularly a self-serving bias whereby one tends to underestimate their own negative behavior and overestimate their partner's. Third, one does not know if the findings associated with the moderating role of relationships distress would change, based upon the female partner's evaluation of distress. Finally, it does not allow for understanding the complexity of the relationship between two people in terms of the importance and meaning of their multiple perspectives on events. In the current study design, the single-source method employed is inherently associated with method variance and bias associated with the male informant's perspective. If key variables of the current study were measured from multiple perspectives, one could then minimize bias by building constructs across two or more sources in order to 'average out' the limitations and biases from any one single source and to aggregate the underlying construct variance.

Unfortunately, collecting the same information from female partners, while clearly strengthening the design, may bring with it another set of difficulties. First

and most pragmatically, women would be difficult to obtain as subjects in the current study because: (a) about 25% of participants had ended the relationship being assessed, (b) about 28% of participants evaluated their relationships as distressed, and (c) the task of collecting a substantial amount of questionnaire data from both partners while ensuring that they did not influence the other's responses would be a difficult one. A second potential difficulty associated with the collection of data from both partners relates to the degree of potential discrepancy between their reports. A small number of studies investigating the agreement between husbands' and wives' reports of husband-to-wife physical aggression indicate that it is typically only in the moderate range (i.e. kappa range = .50-.60;  $r$  range = .32-.80) (Browning & Dutton, 1986; Margolin, 1987; O'Leary Vivian, & Malone, 1992; Szinovacz, 1983). These studies indicate that at the **aggregate** level of aggression (i.e., some versus none) agreement is relatively high. However, at the **specific frequency** level of different types of aggression agreement is far lower, with men's aggression being higher based on women's reports than on men's reports. Several of these studies have also found that husbands consistently report more violence for their wives than wives acknowledged for themselves (Browning & Dutton, 1986; Margolin, 1987). The general finding that both spouses tend to report more violence for their partner than they are willing to acknowledge for themselves is consistent with Gelles's (1979) assertion that spouses tend to be more likely to report their own victimization rather than their own use of violence. Also based on the studies cited above, male partners report the relationship as being *mutually* violent far more often than female partners,

meaning more equal in overall rates, and more often bidirectionally violent at each episode. This is consistent with the two largest family violence surveys of married and cohabitating couples (Stets & Straus, 1989, 1990; Straus & Gelles, 1986) which found that: (a) the rates of wife-to-husband aggression was about equal to that of husband-to-wife aggression, and (b) the most prevalent pattern found was one of bilateral violence, with both partners using relatively less severe tactics. Surprisingly, Smith (1994), in a feminist review of methodologic problems in survey data on violence against women, has noted that "A major methodological problem in victimization surveys on physical and sexual violence against women is the underreporting of male violence by women". The author cites several reasons including feeling that the subject is too personal to discuss, embarrassment and shame, fear of reprisal by her abuser, minimization of the seriousness of the problem, and forgetfulness. As many scholars have noted, disagreements between partners' ratings of a "collective property" (e.g., overt physical aggression, communication) can legitimately be taken as an indicator that one, or more probably both, are giving invalid or biased reports. As Margolin (1987) states in her empirical study of reporting biases in domestic violence, "we cannot conclude that the reports of the victim necessarily reflect objective reality... victims, like aggressors, may distort reality such that they underestimate or overestimate past occurrences of violence. Both victims and aggressors, furthermore, may have reasons for not accurately reporting what they actually perceive to have occurred. The results reported here, plus others studies on the interspousal reliability in the reporting of violence, do not

provide sufficient evidence to conclude that one reporter necessarily is more accurate than the other, or that there is a predictable reporting bias" (p. 82).

A third potential difficulty associated with the collection of data from both partners is that there is no single, accepted way of dealing with discrepant reports. At least five different strategies have been proposed, each having its own strengths and weaknesses. (Fisher, Kokers, Ransom, Phillips, & Rudd, 1985). They include: (a) using the sum or average of the two reports, which presumes that the central tendency of the reports is the best estimate of the property being measured (b) using the discrepancy score, which presumes no systematic measurement error but treats the degree of consensus as the most important property being measured, (c) analyzing the two reports separately, which presumes that they both reports are equally reliable and valid, (d) differentially weighting one partners' report, which presumes that some reports can be treated as more adequate reflections of reality than others, based upon some criterion, (e) applying a linear correlation method to both reports in order to ascertain potential factors, clusters, discriminant functions, or typologies.

A final limitation of this study relates to the assessment of the construct of "communication pattern". The task of assessing dyadic communication patterns is, in and of itself, a relatively complex and demanding one. First, the assessment task requires that an informant assess not only their own behavior, but their partner's behavior, and a pattern of behavior that typically occurs between them. Second, some of the communication patterns are defined by multiple, although related, behaviors, such as "withdraws, becomes silent, or refuses to discuss the matter

further". Third, for many selected patterns, a respondent is asked to evaluate three different interaction processes related to the same specific pattern: a mutual process (we both ridicule), a male unilateral process, (I ridicule but she does not), and a female unilateral process (She ridicules but I do not). In many cases, participants in the current study reported that both mutual and unilateral instances of a specific communication pattern take place between them. While this type of data allows for a sophisticated level of behavioral analysis, it is unclear what the partner is doing when not doing the reciprocal behavior, and what the timing and sequencing of mutual versus unilateral instances of the specific communication pattern are. The authors of the CPQ have made a strong case for its advantages over traditional observational instruments and have provided some initial evidence of convergent validity between the selected subscales of the instrument and observational measures of the same behaviors. However, the CPQ virtually stands alone as the only self-report instrument which has attempted to measure behaviorally-based interaction patterns in close relationships, so comparisons to other instruments purporting to measure the same construct do not currently exist. Some form of in-depth structured interview, observational assessment, or even focus group would clearly serve to strengthen the current assessment of communication patterns and would also serve to reduce the reliance on paper-and-pencil evaluation of a relatively complex, interactional behavior.

### Conclusion and Future Directions

The findings from this study provide fairly strong support that conflict-based,

communication interaction patterns do play a role in the increased risk of occurrence of domestic violence toward female partners. The study results suggest that the way in which conflict is responded to and the communication interaction style employed is one key factor in either escalating or inhibiting physical aggression. Verbal aggression, particularly mutual verbal aggression, unilateral male and female verbal aggression, and male threatening/partner backing down interactions appear to have the strongest association with physical aggression, consistent with a catalyst conceptualization. The higher frequency of these verbally aggressive patterns also discriminated physically aggressive relationships from distressed relationships with no physical aggression. Male demanding/partner withdrawing communication behavior was also associated with an increased risk of domestic violence, although distressed, nonaggressive relationships have a similar frequency of this pattern. The lack of mutual problem-solving communication and the relatively low frequency of mutual **constructive** communication relative to mutual **destructive** communication was additionally associated with an increased risk of domestic violence. The particularly low ratio of constructive to destructive communication discriminated relationships with physical aggression from distressed relationships with no physical aggression.

Based upon the findings of this investigation, there are a seven directions that future research and clinical intervention might take in order to incorporate and extend the results of this study. First, in the previous section various potential explanations were offered in order to help understand the major findings of the study. It would be important for future research to determine the viability of these different

conceptualizations. In order to accomplish this, research would need to be process-oriented rather than exclusively outcome-oriented, given that many of the competing explanatory models are focused on mediating events, such as predispositions to act and cognitive appraisals of events.

Second, one important finding of the current study was that relationship distress does not appear to play a moderating role in the relationship found between various communication patterns and male physical aggression toward partners. However, it would be incorrect to conclude that relationship distress, therefore, has no impact. Indeed, distressed relationships often have a greater likelihood of occurrence of many of the communication patterns than nondistressed relationships. As a result, some communication patterns distinguished physically aggressive relationships from *all* nonaggressive relationships, while other patterns only distinguished aggressive relationships from **nondistressed**, nonaggressive relationships. An important function of future research would be to study more closely this differential outcome, and in doing so, further clarify the influence of relationship distress.

Third, the framework of the current study is anchored within a broader conflict model of domestic violence which proposes that four conflict components play an important role in domestic violence behavior. The first component addresses *conflicts of interest*, particularly the number and type of conflicts of interests. The second component addresses *conflict orientations* or predispositions, including an aggressive, an avoidant, and an problem-solving orientation. The third component addresses *conflict response behavior*, particularly the communication interaction patterns

addressed by this study. The fourth component addresses *conflict outcomes*, such as problem resolution status, emotional outcomes, and unilateral/mutual decision processes. Testing the full conflict model is critical for understanding how conflict processes function in domestic violence. Moreover, given that these four components are clearly interrelated, an adequate test of the full model would need to assess both the direct and indirect influence of each of the components.

Fourth, given the importance of communication patterns in domestic violence, another direction for future research would be to understand these patterns at a far more detailed level. Two aspects are important to understand and to dismantle. The first relates to understanding the sequencing of interactional communication events, in terms of the response/counter-response progression, the initiation of interchanges, and the context of interchanges. The second relates to teasing out and understanding the micro-behaviors, both verbal and nonverbal, that comprise the more global patterns of the type investigated here.

A fifth direction for future research would be to replicate and validate the findings of the current investigation on a sample of female partners who were the victims of physical aggression. Only then could one know if the findings are consistent across respondent types, and if the findings are significantly different, to understand the nature of these discrepancies. Although the vast majority of research on domestic violence has focused upon male aggression and abuse toward female partners, it is becoming increasingly clear that females act in domestically violence and abusive ways toward their male partners. Future research on female partners

could address this gap in knowledge by assessing the role of conflict components, particularly communication interaction patterns, in female aggressive behavior toward male partners.

Sixth, in the current investigation *physical* abuse was the outcome variable examined. However, there is increasing evidence that *psychological* abuse (e.g., controlling, sexual coercion, possessiveness, economic control) may be even more prevalent with a number of deleterious affects on individual and family functioning (See Murphy & Cascardi, 1993). Future research could expand the current investigation by examining conflict-based correlates of psychological abuse, and also by providing a better understanding of the association between physical and psychological abuse.

Finally, clinical treatment could be enhanced with the knowledge derived from the current study. Generally speaking, communication interaction has not been a primary focus, or even a component, in most treatment programs for domestic violence perpetrators (Arias & O'Leary, 1988; Pence & Paymar, 1993; Stith & Rosen, 1990). When it is included, it appears to be relatively indistinguishable from a general model implemented for any couple, regardless of whether domestic violence is evident (Arias & O'Leary, 1988). Given the current study findings, four changes or modifications in current treatment programs could be suggested. First, would be to promote a much greater awareness and understanding of the potential deleterious effects of many conflict-based communication patterns on the risk of domestic violence. A second change would be to directly assess, examine, and change a

number of key communication interaction patterns, particularly mutual and unilateral verbal aggression, male threatening/partner backing down, male demand/female withdraw, and mutual problem-solving. Third, in attempting to decrease verbal aggression and increase the ratio of constructive to destructive communication, communication skills training and conflict-containment strategies would need to be implemented. Communication training involves skills in the domains of listening, feeling expression, nonabusive expression of anger, and request-making. Conflict-containment strategies involve the use of time-out contracts and the reduction of tactics such as blaming, sarcasm, cross-complaining, over-generalizing, rejecting compromise, etc. Finally, the importance of **mutual** interaction processes in verbal aggression and constructive communication suggests a need to utilize couples/family therapy and education formats more judiciously, formats which are currently viewed in a highly negative light by many practitioners (Walker, 1989; Shupe, Stacey, and Hazlewood, 1986).

With the implementation of the research agenda identified above, a fuller understanding of the nature of conflict-based processes in domestic violence, as well as domestic violence intervention can be realized. The current study is an early step in meeting these empirical and intervention goals.

**APPENDIX A:**  
**HUMAN SUBJECTS APPROVAL**

Human Subjects Committee



1622 E. Mabel St.  
Tucson, Arizona 85724  
(520) 626-6721

3 July 1996

Carl A. Ridley, Ph.D.  
Department of Family/Consumer Resources  
Section of Family Studies  
FCR Building, Room 210  
PO BOX 210033

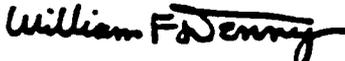
**RE: DOMESTIC VIOLENCE: A TEST OF A CONFLICT MODEL**

Dear Dr. Ridley:

We received your 18 June 1996 letter (on 1 July 1996) requesting a change in subject population for your above cited project. As indicated in your letter, the Theresa Lee Health Center, Sexually Transmitted Disease Clinic, has agreed to allow you access to their patient pool. Approval for this change to your **exempt** project is granted effective 3 July 1996.

Thank you for keeping us informed of your work. If you have any questions concerning the above, please contact this office.

Sincerely,



William F Denny, M.D.  
Chairman  
Human Subjects Committee

WFD/js  
cc: Department/College Review Committee

**APPENDIX B:  
CONSENT FORM**

I AM ASKED TO READ THE FOLLOWING MATERIAL TO ENSURE THAT I AM INFORMED OF THE NATURE OF THIS RESEARCH STUDY AND OF HOW I WILL PARTICIPATE IN IT, IF I CONSENT TO DO SO. SIGNING THIS FORM WILL INDICATE THAT I HAVE BEEN SO INFORMED AND THAT I GIVE MY CONSENT. FEDERAL REGULATIONS REQUIRE WRITTEN INFORMED CONSENT PRIOR TO PARTICIPATION IN THIS RESEARCH STUDY SO THAT I CAN KNOW THE NATURE AND THE RISKS OF MY PARTICIPATION AND CAN DECIDE TO PARTICIPATE OR NOT PARTICIPATE IN A FREE AND INFORMED MANNER.

You have volunteered to participate in a research study conducted by the University of Arizona on disagreement and conflict in close relationships. We are interested in how people respond to conflict, including times when they might become emotionally or physically hurtful to each other.

**WE WOULD LIKE YOU TO FILL OUT A SET OF QUESTIONNAIRES. IT WILL TAKE ABOUT ONE HOUR.**

Most of the questions will focus on how you and a particular partner have dealt with conflicts in your relationships. The questions will ask about things such as the quality of your relationships, your relationship disagreements, your communication, your attitudes and beliefs, and your feelings, including anger. Since we are asking for your personal opinions, the questions should be fairly easy for you to answer. Your answers to these questions will be very helpful to us and we think they will be quite interesting to you also.

**REMEMBER, THERE ARE NO RIGHT OR WRONG ANSWERS, ONLY YOUR THOUGHTS AND OPINIONS.**

**WE WANT TO THANK YOU FOR HELPING US AND SPENDING YOUR TIME BY GIVING YOU CASH.**

Your participation in this study is completely voluntary and you may quit at any time.

All questionnaires and conversations that occur during the study will be confidential and your name will never be used to identify your responses.

We thank you for your help with this research study. If you have questions concerning this study or your participation in it, please call 621-7127 and ask for a Conflict Project member. Your call will be returned as soon as possible. If you would like a summary of the results of our study, call the number listed above after August 1, 1996.

We believe that the information that you provide us will help us better understand, prevent, and intervene in conflict in close relationships. We do not believe participating in this study presents any risk of harm to you either physically or psychologically.

**AUTHORIZATION**

**BEFORE GIVING MY CONSENT BY SIGNING THIS FORM, THE METHODS, INCONVENIENCES, RISKS, AND BENEFITS HAVE BEEN EXPLAINED TO ME AND MY QUESTIONS HAVE BEEN ANSWERED. I UNDERSTAND THAT I MAY ASK QUESTIONS AT ANY TIME WITHOUT CAUSING BAD FEELINGS. MY PARTICIPATION IN THIS PROJECT MAY BE ENDED BY THE**

INVESTIGATOR OR BY THE SPONSOR FOR REASONS THAT WOULD BE EXPLAINED. NEW INFORMATION DEVELOPED DURING THE COURSE OF THIS STUDY WHICH MAY AFFECT MY WILLINGNESS TO CONTINUE IN THIS RESEARCH PROJECT WILL BE GIVEN TO ME AS IT BECOMES AVAILABLE. I UNDERSTAND THAT THIS CONSENT FORM WILL BE FILED IN AN AREA DESIGNATED BY THE HUMAN SUBJECTS COMMITTEE WITH ACCESS RESTRICTED TO THE PRINCIPAL INVESTIGATOR, CARL RIDLEY, PH.D., OR AUTHORIZED REPRESENTATIVES OF THE FAMILY STUDIES DIVISION. I UNDERSTAND THAT I DO NOT GIVE UP ANY OF MY LEGAL RIGHTS BY SIGNING THIS FORM A COPY OF THIS FORM WILL BE GIVEN TO ME.

Subject's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

I have carefully explained to the participant the nature of the above project. I hereby certify that to the best of my knowledge the participant signing this consent form understand clearly the nature, demands, benefits, and risks involved in participating in this study. A medical problem or language, or educational barrier has not precluded a clear understanding of his/her involvement in this project.

Investigator Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**APPENDIX C:**  
**DEMOGRAPHIC AND RELATIONSHIP INFORMATION**

**SECTION ONE:**

THESE QUESTIONS ARE ALL ABOUT THE PERSON YOU IDENTIFIED IN THE SHADED BOX.

1. Are you currently in a relationship with this person now?

- a. Yes
- b. No

2. How long ago did you meet this person?

\_\_\_\_\_ years and \_\_\_\_\_ months

3. How much time went by before you began considering the relationship a serious or significant one?

\_\_\_\_\_ months

4. How serious or significant do you consider it to be now, or did you consider it to be?

1	2	3	4	5	6	7	8	9	10
Only a little serious									Very serious

5. Please circle how many of the last 12 months you have been in a relationship with this person?

1 2 3 4 5 6 7 8 9 10 11 all 12 months

6. If you circled "all 12 months" to the last question, how long have you been in a relationship with this person overall?

\_\_\_\_\_ years and \_\_\_\_\_ months.

7. Please circle the item below which best describes the relationship with this person now?

- a. Currently married to this person
- b. Currently engaged to this person
- c. Currently divorced from this person
- d. None of the above
- e. Other: \_\_\_\_\_

8. Are you currently living with this person in the same household?

- a. Yes
- b. No

9. During the last 12 months, how many months did you live together in the same household?

none 1 2 3 4 5 6 7 8 9 10 11 all 12 months

10. During the last 12 months, how many months were you apart? (either voluntarily or out of your control)

none 1 2 3 4 5 6 7 8 9 10 11 all 12 months

11. How many children did you "father" with this person? \_\_\_\_\_

What are their ages now? \_\_\_\_\_

12. How many total children were you taking care of between the two of you in this relationship? \_\_\_\_\_

What are their ages now? (if some or all of the children you list are the same as in #11, please list them again)

\_\_\_\_\_

---

---

**SECTION TWO:**

1. How old were you on your last birthday? \_\_\_\_\_ years.
2. What level of formal education have you COMPLETED?
  - a. grade school
  - b. high school graduate or G.E.D.
  - c. vocational school or some college
  - d. college graduate
  - e. some graduate or professional school or master's degree
  - f. Ph.D., M.D., or some other advanced degree
3. What was your total ANNUAL income last year (include all sources of money)?

a. \$ 0 - 4,999	e. \$ 20,000 - 24,999
b. \$ 5,000 - 9,999	f. \$ 25,000 - 49,999
c. \$ 10,000 - 14,999	g. \$ 50,000 - 100,000
d. \$ 15,000 - 19,999	h. Above \$100,000
4. What is your race or ethnic identification?
  - a. Anglo American (Caucasian, White, European)
  - b. Hispanic American (Mexican American, Latino)
  - c. African American (Black American)
  - d. Native American (American Indian)
  - e. Asian American (Oriental)
  - f. Other: \_\_\_\_\_

**APPENDIX D:**  
**ABUSIVE BEHAVIOR INVENTORY: PARTNER VERSION**

Below is a list of behaviors that many men and women report have been used by their partners, former partners, or family members. Please circle about how often you have used these behaviors during the last 12 months with THE PERSON YOU IDENTIFIED IN THE SHADED BOX ON THE FIRST PAGE OF THIS PACKET. If you are no longer together, please answer all questions about the LAST 12 MONTHS in which you were together. Please estimate how often by circling either 0, 1, 2, 3-5, 6-10, 11-20, or 20+. The numbers mean the following:

- |                 |                          |
|-----------------|--------------------------|
| 0 = NEVER       | 6-10 = 6-10 TIMES        |
| 1 = ONCE        | 11-20 = 11-20 TIMES      |
| 2 = TWICE       | 20+ = MORE THAN 20 TIMES |
| 3-5 = 3-5 TIMES |                          |

Again, please circle about how often you have used these behaviors during the last 12 months with the person you identified in the shaded box on the first page of this packet:

---



---

1. Called her names and/or criticized her.	0	1	2	3-5	6-10	11-20	20+
2. Tried to keep her from doing something she wanted to do. (example: going out with her friends, going to meetings)	0	1	2	3-5	6-10	11-20	20+
3. Gave her angry stares or looks.	0	1	2	3-5	6-10	11-20	20+
4. Prevented her from having money for her own use.	0	1	2	3-5	6-10	11-20	20+
5. Threatened to hit or throw something at her.	0	1	2	3-5	6-10	11-20	20+
6. Pushed, grabbed, shoved, or held her down.	0	1	2	3-5	6-10	11-20	20+
7. Put down her family and friends.	0	1	2	3-5	6-10	11-20	20+
8. Accused her of paying too much attention to someone or something else.	0	1	2	3-5	6-10	11-20	20+
9. Forced her to be on an allowance.	0	1	2	3-5	6-10	11-20	20+
10. Used the children to threaten her (example: told her that she would lose custody, said I would leave town with the children).	0	1	2	3-5	6-10	11-20	20+
11. Became very upset with her because dinner, housework, or laundry was not ready when I wanted it or done the way I thought it should be.	0	1	2	3-5	6-10	11-20	20+
12. Said things to scare her (examples: told her something "bad" would happen, threatened to commit suicide).	0	1	2	3-5	6-10	11-20	20+

0= NEVER  
 1= ONCE  
 2= TWICE  
 3-5= 3-5 TIMES

6-10= 6-10 TIMES  
 11-20= 11-20 TIMES  
 20+ = MORE THAN 20 TIMES

---

13. Slapped, hit, or bit her.	0	1	2	3-5	6-10	11-20	20+
14. Made her do something humiliating or degrading (example: beg for forgiveness, have to ask my permission to use the car or something).	0	1	2	3-5	6-10	11-20	20+
15. Checked up on her (examples: listened to her phone calls, checked the mileage on her car, called her repeatedly at work).	0	1	2	3-5	6-10	11-20	20+
16. Drove recklessly when she was in the car.	0	1	2	3-5	6-10	11-20	20+
17. Pressured her to have sex in a way that she didn't like or want.	0	1	2	3-5	6-10	11-20	20+
18. Refused to do child care when it was clearly needed.	0	1	2	3-5	6-10	11-20	20+
19. Threatened her with a knife, gun, or other weapon.	0	1	2	3-5	6-10	11-20	20+
20. Told her that she was a bad parent in order to hurt her.	0	1	2	3-5	6-10	11-20	20+
21. Stopped her or tried to stop her from going to work or school.	0	1	2	3-5	6-10	11-20	20+
22. Threw, hit, kicked, or smashed something.	0	1	2	3-5	6-10	11-20	20+
23. Kicked her.	0	1	2	3-5	6-10	11-20	20+
24. Physically forced her to have sex.	0	1	2	3-5	6-10	11-20	20+
25. Threw her around.	0	1	2	3-5	6-10	11-20	20+
26. Physically attacked the sexual parts of her body.	0	1	2	3-5	6-10	11-20	20+
27. Choked or strangled her.	0	1	2	3-5	6-10	11-20	20+
28. Used a knife, gun, or other weapon against her.	0	1	2	3-5	6-10	11-20	20+
29. Threw something at her.	0	1	2	3-5	6-10	11-20	20+
30. Punched her.	0	1	2	3-5	6-10	11-20	20+

**APPENDIX E:**

**ABUSIVE BEHAVIOR INVENTORY: OTHERS VERSION**

***This is the Same Questionnaire You Filled out at the Beginning of the Packet!***

But now we would like you to fill it out again, this time circling about how often you have used these behaviors during the last 12 months with:

**ANY OTHER PEOPLE BESIDES THE PERSON YOU IDENTIFIED IN THE SHADED BOX ON THE FIRST PAGE OF THIS PACKET. THESE OTHER PEOPLE MIGHT BE, FOR EXAMPLE, PREVIOUS GIRLFRIENDS, EX-PARTNERS, EX-WIVES, MALE OR FEMALE FRIENDS, CO-WORKERS, RELATIVES, OR EVEN STRANGERS.**

Please estimate how often FOR ALL OTHER PEOPLE TOTALED TOGETHER by circling either 0, 1, 2, 3-5, 6-10, 11-20, or 20+. The numbers mean the following:

0= NEVER	6-10= 6-10 TIMES
1= ONCE	11-20= 11-20 TIMES
2= TWICE	20+ = MORE THAN 20 TIMES
3-5= 3-5 TIMES	

Again, please circle about how often you have used these behaviors during the last 12 months with people besides the person you identified in the shaded box on the first page of this packet.

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1. Called them names and/or criticized them.	0	1	2	3-5	6-10	11-20	20+
2. Tried to keep them from doing something they wanted to do. (example: going out with friends, going to meetings)	0	1	2	3-5	6-10	11-20	20+
3. Gave them angry stares or looks.	0	1	2	3-5	6-10	11-20	20+
4. Prevented them from having money for their own use.	0	1	2	3-5	6-10	11-20	20+
5. Threatened to hit or throw something at them.	0	1	2	3-5	6-10	11-20	20+
6. Pushed, grabbed, shoved, or held them down.	0	1	2	3-5	6-10	11-20	20+
7. Put down their family and friends.	0	1	2	3-5	6-10	11-20	20+
8. Accused them of paying too much attention to someone or something else.	0	1	2	3-5	6-10	11-20	20+
9. Forced them to be on an allowance.	0	1	2	3-5	6-10	11-20	20+

0=	NEVER	6-10=	6-10 TIMES
1=	ONCE	11-20=	11-20 TIMES
2=	TWICE	20+ =	MORE THAN 20 TIMES
3-5=	3-5 TIMES		

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10. Used the children to threaten them (example: told them that they would lose custody, said I would leave town with the children).	0	1	2	3-5	6-10	11-20	20+
11. Became very upset with them because dinner, housework, or laundry was not ready when I wanted it or done the way I thought it should be.	0	1	2	3-5	6-10	11-20	20+
12. Said things to scare them (examples: told them something "bad" would happen, threatened to commit suicide).	0	1	2	3-5	6-10	11-20	20+
13. Slapped, hit, or bit them.	0	1	2	3-5	6-10	11-20	20+
14. Made them do something humiliating or degrading (example: beg for forgiveness, have to ask my permission to use the car or something).	0	1	2	3-5	6-10	11-20	20+
15. Checked up on them (examples: listened to their phone calls, checked the mileage on their car, called them repeatedly at work).	0	1	2	3-5	6-10	11-20	20+
16. Drove recklessly when they were in the car.	0	1	2	3-5	6-10	11-20	20+
17. Pressured them to have sex in a way that they didn't like or want.	0	1	2	3-5	6-10	11-20	20+
18. Refused to do child care when it was clearly needed.	0	1	2	3-5	6-10	11-20	20+
19. Threatened them with a knife, gun, or other weapon.	0	1	2	3-5	6-10	11-20	20+
20. Told them that they were a bad parent in order to hurt them.	0	1	2	3-5	6-10	11-20	20+
21. Stopped them or tried to stop them from going to work or school.	0	1	2	3-5	6-10	11-20	20+
22. Threw, hit, kicked, or smashed something.	0	1	2	3-5	6-10	11-20	20+
23. Kicked them.	0	1	2	3-5	6-10	11-20	20+
24. Physically forced them to have sex.	0	1	2	3-5	6-10	11-20	20+

0= NEVER  
 1= ONCE  
 2= TWICE  
 3-5= 3-5 TIMES

6-10= 6-10 TIMES  
 11-20= 11-20 TIMES  
 20+ = MORE THAN 20 TIMES

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25. Threw them around.	0	1	2	3-5	6-10	11-20	20+
26. Physically attacked the sexual parts of their body.	0	1	2	3-5	6-10	11-20	20+
27. Choked or strangled them.	0	1	2	3-5	6-10	11-20	20+
28. Used a knife, gun, or other weapon against them.	0	1	2	3-5	6-10	11-20	20+
29. Threw something at them.	0	1	2	3-5	6-10	11-20	20+
30. Punched them.	0	1	2	3-5	6-10	11-20	20+

APPENDIX F:  
COMMUNICATION PATTERNS QUESTIONNAIRE

The statements below relate to how you and THE PERSON YOU IDENTIFIED IN THE SHADED BOX ON THE FIRST PAGE OF THIS PACKET typically deal with problems in your relationship. It will be helpful if you think about some specific times when you have had a conflict or problem come up between you. If you are no longer together, please answer all items in terms of the way things were during the time you were in a significant relationship with that person. Please circle a number from 1 (= very unlikely) to 9 (=very likely) which means how likely it is or how likely it was that the things described below occurred.

**A. WHEN SOME PROBLEM IN THE RELATIONSHIP ARISES . . .**

	Very <u>Unlikely</u>									Very Likely
1. We <u>both</u> avoid discussing the problem.	1	2	3	4	5	6	7	8	9	
We <u>both</u> try to discuss the problem.	1	2	3	4	5	6	7	8	9	
<u>I</u> try to start a discussion while <u>she</u> tries to avoid a discussion.	1	2	3	4	5	6	7	8	9	
<u>She</u> tries to start a discussion while <u>I</u> try to avoid a discussion.	1	2	3	4	5	6	7	8	9	

**B. DURING AN ARGUMENT OR DISCUSSION OF SOME RELATIONSHIP PROBLEM. . .**

2. We <u>both</u> blame, accuse, and criticize each other.	1	2	3	4	5	6	7	8	9	
<u>I</u> blame, accuse, and criticize her, while <u>she</u> gets defensive.	1	2	3	4	5	6	7	8	9	
<u>She</u> blames, accuses, and criticizes me, while <u>I</u> get defensive.	1	2	3	4	5	6	7	8	9	
3. We <u>both</u> express our feelings in words to each other.	1	2	3	4	5	6	7	8	9	
<u>I</u> express my feelings in words to her, while <u>she</u> does not.	1	2	3	4	5	6	7	8	9	
<u>She</u> expresses her feelings in words to me, while <u>I</u> don't.	1	2	3	4	5	6	7	8	9	

**B. DURING AN ARGUMENT OR DISCUSSION OF SOME RELATIONSHIP PROBLEM. . .**

	Very <u>Unlikely</u>									Very Likely
4. We <u>both</u> offer possible solutions or compromises.	1	2	3	4	5	6	7	8	9	
<u>I</u> offer possible solutions or compromises, while <u>she</u> does not.	1	2	3	4	5	6	7	8	9	
<u>She</u> offers possible solutions or compromises, while <u>I</u> do not.	1	2	3	4	5	6	7	8	9	
5. <u>I</u> repeatedly complain and demand while <u>she</u> withdraws, becomes silent, or refuses to discuss the matter further.	1	2	3	4	5	6	7	8	9	
<u>She</u> repeatedly complains and demands while <u>I</u> withdraw, become silent, or refuse to discuss the matter further.	1	2	3	4	5	6	7	8	9	
6. We <u>both</u> threaten each other with something negative.	1	2	3	4	5	6	7	8	9	
<u>I</u> threaten something negative while <u>she</u> gives in or backs down.	1	2	3	4	5	6	7	8	9	
<u>She</u> threatens something negative while <u>I</u> give in or back down.	1	2	3	4	5	6	7	8	9	
7. <u>I</u> pressure her to do something or stop doing something while <u>she</u> resists.	1	2	3	4	5	6	7	8	9	
<u>She</u> pressures me to do something or stop doing something while <u>I</u> resist.	1	2	3	4	5	6	7	8	9	
8. We <u>both</u> call each other names, ridicule each other, swear at each other, or attack each others' character, competence, or appearance.	1	2	3	4	5	6	7	8	9	
<u>I</u> call her names, ridicule her, swear at her, or attack her character, competence, or appearance, while <u>she</u> does not.	1	2	3	4	5	6	7	8	9	
<u>She</u> calls me names, ridicules me, swears at me, or attacks my character, competence, or appearance, while <u>I</u> do not.	1	2	3	4	5	6	7	8	9	

**APPENDIX G:**  
**MARITAL OPINION QUESTIONNAIRE**



2. ALL THINGS CONSIDERED, HOW SATISFIED OR DISSATISFIED HAVE YOU BEEN WITH YOUR RELATIONSHIP, AS A WHOLE? PLACE AN X IN THE BOX THAT BEST DESCRIBES HOW SATISFIED YOU HAVE BEEN.

Completely         Completely  
DISsatisfied Satisfied

## REFERENCES

- Alessi, J. J., & Hearn, K. (1984). Group treatment of children in shelters for battered women. In A. R. Roberts (Ed.), Battered women and their families, (pp. 49-61). New York: Springer.
- Arias, I., & O'Leary, K. D. (1988). Cognitive-behavioral treatment of physical aggression in marriage. In N. Epstein, W. Dryden, & S. Schlesinger (Eds.), Cognitive-behavioral therapy with families. (pp. 118-150). New York: Brunner/Mazel.
- Babcock, J. C., Waltz, J., Jacobson, N. S., & Gottman, J. M. (1993). Power and Violence: The relation between communication patterns, power discrepancies, and domestic violence. Journal of Consulting and Clinical Psychology, 61, 40-50.
- Baucom, D. H., & Adams, A. N. (1987). Assessing communication in marital interaction. In K. D. O'Leary (Ed.) Assessment of marital discord (pp. 139-182). NJ: Lawrence Erlbaum Associates.
- Bolton, R. (1979). People skills. Englewood Cliffs, NJ: Prentice-Hall.
- Browning, J. & Dutton, D. (1986). Assessment of wife assault with the Conflict Tactics Scale: Using couple data to quantify the differential reporting effect. Journal of Marriage and the Family, 48, 375-379.
- Burman, B., John, R. S., & Margolin, G. (1992). Observed patterns of conflict in violent, nonviolent, and nondistressed couples. Behavioral Assessment, 14(1), 15-37.
- Burman, B., Margolin, G., & John, R. S. (1993). America's angriest home videos: Behavioral contingencies observed in home reenactments of marital conflict. Journal of Consulting and Clinical Psychology, 61(1), 28-39.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). The quality of American life. New York: Simon & Schuster.
- Christensen, A. (1987a). Detection of conflict patterns in couples. In K. Hahlweg & M. J. Goldstein (Eds.), Understanding major mental disorder: The contribution of family interaction research (pp. 250-265). New York: Family Process Press.
- Christensen, A. (1987b). Assessment of behavior. In K. D. O'Leary (Ed.), Assessment of marital discord (pp. 13-58). Hillsdale, NJ: Erlbaum.

- Christensen, A. (1988). Dysfunctional interaction patterns in couples. In P. Noller & M. A. Fitzpatrick (Eds.), Perspectives on marital interaction (pp. 31-52). Philadelphia, PA: Multilingual Matters.
- Christensen A., & Heavey, C. L. (1990). Gender and social structure in the demand/withdraw pattern of marital conflict. Journal of Personality and Social Psychology 59, 73-81.
- Christensen, A., & Heavey, C. L. (1993). Gender differences in marital conflict. The demand-withdraw interaction pattern. In S. Oskamp & M. Costanzo (Eds.), Gender issues in contemporary society. Newbury Park, CA: Sage.
- Christensen, A., & Shenk, J. (1991). Communication, conflict, and psychological distance in nondistressed, clinic, and divorcing couples, Journal of Consulting and Clinical Psychology, 59, 458-463.
- Christensen, A., & Sullaway, M. (1984). Communication Patterns Questionnaire. Unpublished manuscript, University of California, Los Angeles.
- Cloven, D. H., & Roloff, M. E. (1993). Marital power, conflict, and violence in a nationally representative sample of American couples. Violence and Victims, 1, 141-157.
- Cohen, J., & Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, NJ: Erlbaum.
- Cordova, J. V., Jacobson, N. S., Gottman, J. M., Rushe, R., & Cox, G. (1993). Negative reciprocity and communication in couples with a violent husband. Journal of Abnormal Psychology, 102(4), 559-564.
- Deutsch, M. (1969). Conflicts: productive and destructive. In F. E. Jandt (Ed.), Conflict resolution through communication. New York: Harper and Row.
- Dobash, R. E., & Dobash, R. P. (1988). Research as social action: The struggle for battered women. In K. Yllö & M. Bograd (Eds.), Feminist perspectives on wife abuse, (pp. 51-74). Newbury Park, CA: Sage.
- Dutton, D. G. (1986). The outcome of court-mandated treatment for wife-assault: A quasi-experimental evaluation. Violence and Victims, 1, 163-175.
- Dutton, D. G., & Strachen, C. E. (1987). Motivational needs for power and spouse-specific assertiveness in assaultive and non-assaultive men. Violence and Victims, 3, 145-156.

- Feldman, C. M., & Ridley, C. A. (1995). The etiology and treatment of domestic violence between adult partners, Clinical Psychology: Science and Practice, 2 (4), 317-348.
- Felson, R. B. (1984). Patterns of aggressive social interaction. In A. Mummendey (Ed.), Social psychology of aggression: From individual behavior to social interaction (pp. 109-126). Berlin: Springer-Verlag.
- Fisher, L., Kokes, R., Ransom, D., Phillips, S., & Rudd, P. (1985). Alternative strategies for creating "relational" family data. Family Process, 24, 213-224.
- Fitzpatrick, M. A. (1988). Between husbands & wives: Communication in marriage. Newbury Park, CA: Sage Publications, Inc.
- Fogarty, T. F. (1976). Marital crisis. In P. J. Guerin (Ed.), Family therapy: Theory and practice (pp. 325-334). New York: Gardner Press.
- Frieze, I. H., & McHugh, M. C. (1992). Power and influence strategies in violent and nonviolent marriages. Special issue: Women and power. Psychology of Women Quarterly, 16(4), 449-465.
- Galvin, K. M., & Brommel, B. J. (1986). Family communication: Cohesion and change. IL: Scott Foresman & Co.
- Gelles, R. (1974). The violent home. Beverly Hills, CA: Sage.
- Gelles, R. (1979). The myth of battered husbands and the new facts about family violence. Ms. 66 (October):71.
- Gelles, R. J., & Straus, M. A. (1979). Determinants of violence in the family: Toward a theoretical integration. In Burr, Hill, Nye, & Reiss (Eds.), Contemporary theories about the family (pp. 549-581). New York: Free Press.
- Gottman, J. M. (1979). Marital interaction: Experimental investigations. New York: Academic.
- Gottman, J. M. (1994). What predicts divorce: The relationship between marital processes and marital outcomes. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: A longitudinal view. Journal of Consulting and Clinical Psychology, 57, 47-52.

- Gottman, J. M., Notarius, C., Gonso, J., & Markman, H. (1976). A couple's guide to communication. Champaign, IL: Research Press.
- Heavey, C. L., Larson, B. M., Christensen, A., & Zumtobel, D. C. (1996). The communication patterns questionnaire: The reliability and validity of a constructive communication subscale. Journal of Marriage and the Family, 58, 796-800.
- Hocker, J. L., & Wilmot, W. W. (1991). Interpersonal conflict. Dubuque, IA: Wm.C. Brown.
- Holtzworth-Munroe, A., & Hutchinson, G. (1993). Attributing negative intent to wife behavior: The attributions of maritally violent versus nonviolent men. Journal of Abnormal Psychology, 102, 206-211.
- Hotaling, G. T., & Sugarman, D. B. (1986). An analysis of risk markers in husband to wife violence: The current state of knowledge. Violence and Victims, 1, 1986.
- Hotaling, G. T., & Sugarman, D. B. (1990). Prevention of wife assault. In R. T. Ammerman & H. Hersen (Eds.), Treatment of Family Violence: A sourcebook (pp. 3-14). New York: Plenum.
- Howell, D. C. (1992). Statistical Methods for Psychology. Belmont, CA: Duxbury Press.
- Houts, A., Cook, T., & Shadish, W. (1986). The person-situation debate: A critical multiplist perspective. Journal of Personality, 54, 52-70.
- Huck S. W., & Cormier, W. H. (1996). Reading Statistics and Research. New York: HarperCollins.
- Hughes, H. M., & Barad, S. J. (1983). Psychological functioning of children in a battered women's shelter: A preliminary investigation. American Journal of Orthopsychiatry, 53, 525-531.
- Huston, T. L., & Robbins, E. (1982). Conceptual and methodological issues in studying close relationships. Journal of Marriage and the Family, 44, 901-926.
- Huston, T. L., & Vangelisti, A. L. (1991). Socioemotional behavior and satisfaction in marital relationships: A longitudinal study. Journal of Personality and Social Psychology, 61, 721-733.

- Huston, T. L., McHale, S. M., & Crouter, A. C. (1986). When the honeymoon's over: Changes in the marriage relationship over the first year. In R. Gilmore & S. Duck (Eds.), The emerging field of personal relationships (pp. 109-133). Hillsdale, New Jersey: Erlbaum Associates.
- Infante, D. A. (1987). Aggressiveness. In J. C. McCroskey & J. A. Daly (Eds.), Personality and interpersonal communication (pp. 157-192). Newbury Park, CA: Sage.
- Infante, D. A., Chandler, T. A., & Rudd, J. E. (1989). Test of an argumentative skill deficiency model of interspousal violence. Communication Monographs, 56, 163-177.
- Infante, D. A., & Wigley, C. J. (1986). Verbal aggressiveness: An interpersonal model and measure. Communication Monographs, 53, 61-69.
- Infante, D. A., Sabourin, T. C., Rudd, J. E., & Shannon, E. A. (1990). Verbal aggression in violent and nonviolent marital disputes. Communication Quarterly, 38, 361-371.
- Isaac, S., & Michael, W. B. (1982). Handbook in Research and Evaluation. San Diego, CA: EdITS.
- Jacob, T. Tennenbaum, D. L., & Krahn, G. (1987). Factors influencing the reliability and validity of observational data. In T. Jacob (Ed.), Family interaction and psychopathology (pp. 297-328). New York: Plenum.
- Jacobson, N. S., & Gurman, A. S. (1986) Clinical handbook of marital therapy. New York: Guilford Press.
- Jacobson, N. S., & Margolin, G. (1979). Marital therapy: Strategies based on social learning and behavior exchange principles. New York: Brunner/Mazel.
- Jacobson, N. S., Gottman, J. M., Waltz, J., Rushe, R., Babcock, J., & Holtzworth-Munroe, A. (1994). Affect, verbal content, and psychophysiology in the arguments of couples with a violent husband. Journal of Consulting and Clinical Psychology, 62, 982-988.
- Jaffe, P., Wolfe, D., Wilson, S., & Zak, L. (1986). Emotional and physical health problems of battered women. Canadian Journal of Psychiatry, 31, 625-629.

- Kurt, D. (1993). Physical assaults by husbands: A major social problem. In R. J. Gelles & D. R. Loseke (Eds.), Current controversies on family violence (pp. 88-103). Newbury Park: Sage.
- Kurz, D. (1993). Physical assaults by husbands: A major social problem. In R. J. Gelles & D. R. Loseke (Eds.), Current controversies on family violence (pp. 88-103). Newbury Park: Sage.
- Kurz, D., & Stark, E. (1988). Not so benign neglect: The medical response to battering. In K. Yllo & M. Bograd (Eds.), Feminist perspectives on wife abuse (pp. 249-266). Beverly Hills, CA: Sage.
- Kelley, H. H., (1983). Analyzing close relationships. In H. H. Kelley, E.S. Berscheid, A. Christensen, J. Harvey, T. L. Huston, G. Levinger, E. McClintock, A. Peplau, and D. R. Peterson (Eds.), Close relationships (pp. 20-67). New York: W. H. Freeman.
- Levinson, R. W., & Gottman, J. M. (1983). Marital interaction: Physiological linkage and affective exchange. Journal of Personality and Social Psychology, 45, 487-597.
- Lloyd, S. A. (1990). Conflict Types and Strategies in violent marriages. Journal of Family Violence, 5, 269-283.
- Lloyd, S. A. (1996). Physical aggression, distress, and everyday marital interaction. In D. D. Cahn & S. A. Lloyd (Eds.), Family violence from a communication perspective (pp. 177-198). Thousand Oaks, CA: Sage.
- Lloyd, S. A., Koval, J. E., & Cate, R. M. (1989). Conflict and violence in dating relationships. In M. A. Pirog-Good & J. E. Stets (Eds.), Violence in dating relationships: Emerging social issues (pp. 126-142). New York: Praeger.
- Locke, H. J., & Wallace, K. M. (1959). Short marital adjustment and prediction tests: Their reliability and validity. Marriage and Family Living, 21, 251-255.
- Maiuro, R. D., Cahn, T. S., & Vitaliano, P. P. (1986). Assertiveness and hostility in domestically violent men. Violence and Victims, 1, 279-289.
- Margolin, G. (1987). The multiple forms of aggressiveness between marital partners: How do we identify them? Journal of Marital and Family Therapy, 13, 77-84.

- Margolin, G., Fernandez, V., Gorin, L., & Ortiz, S. (1982, November). The conflict inventory: A measurement of how couples handle marital tension. Paper presented at the 16th Annual Meeting of the Association for the Advancement of Behavior Therapy, Los Angeles, CA.
- Margolin, G., John, R. S., & Gleberman, L. (1988). Affective responses to conflictual discussions in violent and nonviolent couples. Journal of Consulting and Clinical Psychology, 56, 24-33.
- Margolin, G., John, R. S., Ghosh, C. M., & Gordis, E. B. (1996). Family Interaction Process: An essential tool for exploring abusive relations. In D. D. Cahn & S. A. Lloyd (Eds.), Family violence from a communication perspective (pp. 37-58). Thousand Oaks, CA: Sage.
- Markman, H. J., & Kraft, S. A. (1989). Men and women in marriage: Implications for treatment and prevention of marital distress. The behavior Therapist, 12, 51-56.
- Markman, H. J., & Notarius, C. I. (1987). Coding marital and family interactions: Current status. In T. Jacobs (Ed.), Family interaction and psychopathology (pp. 329-390). New York: Plenum Press.
- Markman, H. J., Renick, M. J., Floyd, F. J., Stanley S. M., & Clements, M. (1993). Preventing marital distress through communication and conflict management training: A 4 and 5 year follow-up. Journal of Consulting and Clinical psychology, 61, 70-77.
- Markman, H. J., Stanely, S. M. & Blumberg, S. L. (1994). Fighting for your marriage: Positive steps for preventing divorce and preserving a lasting love. San Francisco: Josie Bass.
- McCloskey, L. A., Figueredo, A. J., Koss, M. P. (1995). The effects of systemic family violence on children's mental health. Child Development, 66, 1239-1261.
- Murphy, C. M., & Cascardi, M. (1993). Psychological aggression and abuse in marriage. In R. L. Hampton, T. P. Gullotta, G. R. Adams, E. H. Potter, & R. P. Weissberg (Eds.), Family Violence: Prevention and Treatment. Beverly Hills, CA:Sage.
- Murphy, C. M., & O'Leary, K. D. (1989). Psychological aggression predicts physical aggression in early marriage. Journal of Consulting and Clinical Psychology, 57, 579-582.

- Napier, A. Y. (1978). The rejection-intrusion pattern: A central family dynamic. Journal of Marriage and Family Counseling, 4, 5-12.
- Noller, P., & White, A. (1990). The validity of the communication patterns questionnaire. Psychological Assessment, 2, 478-482.
- O'Leary, K. D. (1988). Physical aggression between spouses: A social learning theory perspective. In V. B. Van Hasselt, R. L. Morrison, A. S. Bellack, & M. Hersen (Eds.), Handbook of family violence. New York: Plenum.
- O'Leary, K. D., & Arias, I. (1987). Marital assessment in clinical practice. In K. D. O'Leary (Ed.) Assessment of marital discord (pp.287-312). NJ: Lawrence Erlbaum Associates.
- O'Leary, K. D., Barling, J., Arias, I., & Rosenbaum, A., Malone, J., & Tyree, A. (1989). Prevalence and stability of physical aggression between spouses: A longitudinal analysis. Journal of Consulting and Clinical Psychology, 57, 263-268.
- O'Leary, K. D., Vivian, D., & Malone, J. (1992). Assessment of physical aggression against women in marriage: The need for multimodal assessment. Behavioral Assessment, 14, 5-14.
- Olson, D. (1977). Insiders' and outsiders' views of relationships: Research studies. In G. Levinger & H. Rausch (Eds.), Close Relationships. Amherst: University of Massachusetts Press.
- Pence, E., & Paymar, M. (1993). Education groups for men who batter: The Duluth model. New York: Springer.
- Peterson, D. R. (1983). Conflict. In H. H. Kelley, E. S. Berscheid, A. Christensen, J. Harvey, T. L. Huston, G. Levinger, E. McClintock, A. Peplau, and D. R. Peterson (Eds.), Close relationships (pp. 360-396). New York: W. H. Freeman.
- Ptacek, J. (1988). Why do men batter their wives? In K. Yllö & M. Bograd (Eds.), Feminist perspectives on wife abuse (pp. 133-157). Beverly Hills, CA: Sage.
- Rands, M., Levinger, G., & Mellinger, G. D. (1981). Patterns of conflict resolution and marital satisfaction. Journal of Family Issues, 2, 297-321.
- Rausch, H., Barry, W., Hertel, R., & Swain, M. (1974). Communication, conflict, and marriages. New Brunswick, NJ: Rutgers University Press.

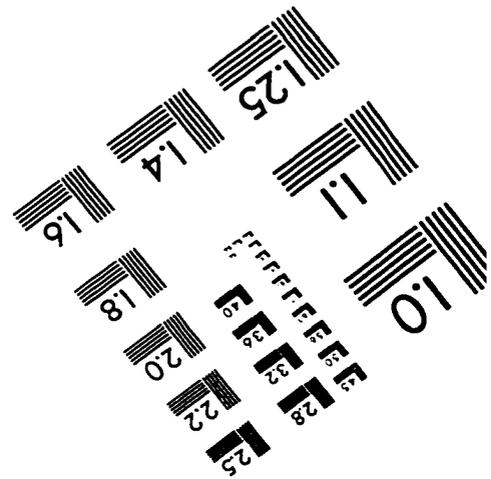
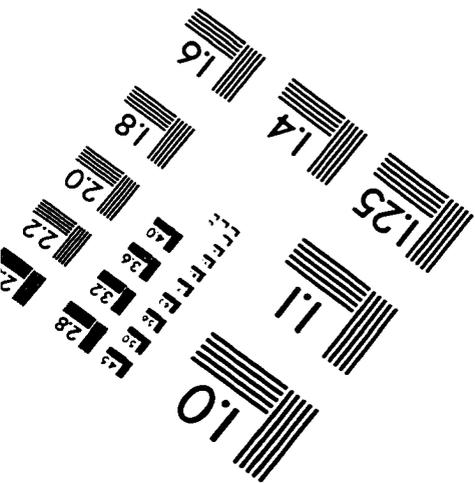
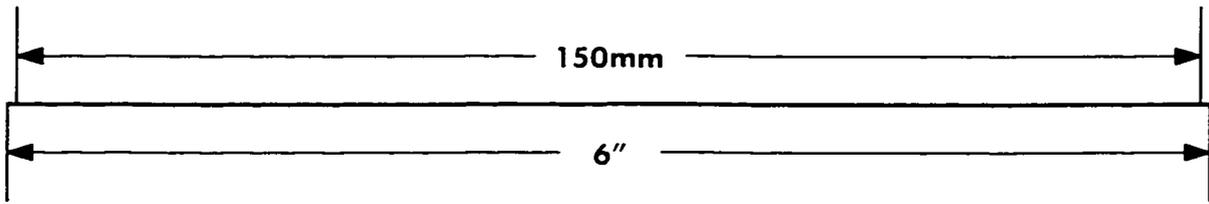
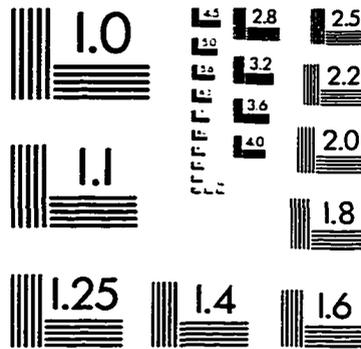
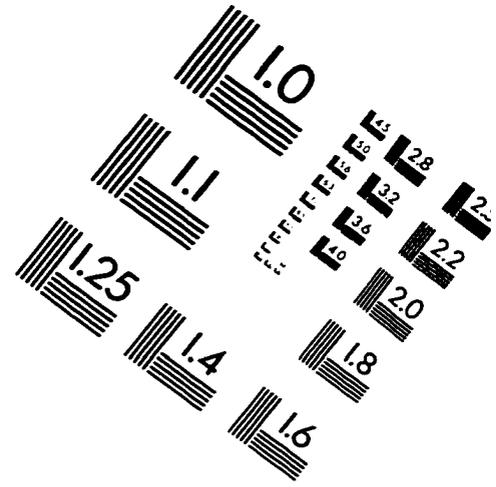
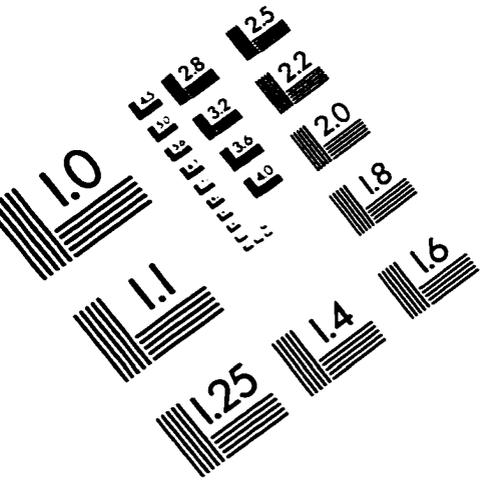
- Riggs, D. S., Murphy, C. M., & O'Leary, K. D. (1989). Intentional falsification in reports of interpartner aggression. Journal of Interpersonal Violence, 4, 220-232.
- Roloff, M. E. (1996). The catalyst hypothesis: Conditions under which coercive communication leads to physical aggression. In D. D. Cahn & S. A. Lloyd (Eds.), Family violence from a communication perspective (pp. 20-36). Thousand Oaks, CA: Sage.
- Rosenbaum, A., & O'Leary, K. D. (1981). Marital violence: Characteristics of abusive couples. Journal of Consulting and Clinical Psychology, 49, 63-71.
- Rosenberg, M. (1987). Children of battered women: The effects of witnessing violence on their social problem-solving abilities. Behavior Therapist, 4, 85-89.
- Rosenfeld, B. (1992). Court-ordered treatment of spouse abuse. Clinical Psychology Review, 12, 205-226.
- Sabatelli, R. M. (1988). Measurement issues in marital research: A review and critique of contemporary survey instruments. Journal of Marriage and the Family, 50, 891-915.
- Sabourin, T. C. (1995). The role of negative reciprocity in spouse abuse: A relational control analysis. Journal of Applied Communication Research, 23(4), 271-283.
- Sabourin, T. C. (1996). The role of communication in verbal abuse between spouses. In D. D. Cahn & S. A. Lloyd (Eds.), Family violence from a communication perspective (pp. 199-217). Thousand Oaks, CA: Sage.
- Sabourin, T. C., Infante, D. C., & Rudd, J. E. (1993). Verbal aggression in marriages: A comparison of violent, distressed but nonviolent, and nondistressed couples. Human Communication Research, 20, 245-267.
- Sharpley, C. F., & Cross, D. G. (1982). A psychometric evaluation of the Spanier dyadic adjustment scale. Journal of Marriage and the Family, 44, 739-741.
- Shepard, M. F., & Campbell, J. A. (1992). The abusive behavior inventory: A measure of psychological and physical abuse. Journal of Interpersonal Violence, 7, 291-305.
- Shupe, A., Stacey, W. A., & Hazelwood, L. R. (1986). Violent men, violent couples. Lexington, MA: Lexington Books.

- Sillars, A. L. (1980). Attributions and communication in roommate conflicts. Communication Monographs, 47, 180-200.
- Sillars, A. L. (1991). Behavioral observation. In G. Levinger & H. Rausch (Eds.), Studying interpersonal interaction (pp. 179-219). New York: Guilford.
- Smith, M. D. (1994). Enhancing the quality of survey data on violence against women: A feminist approach. Gender & Society, 8, 109-127.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage of the Family 38, 15-28.
- Steinmetz, S. K., & Straus, M. A. (1974). Violence in the family. New York: Harper and Row.
- Stets, J. E. (1990). Verbal and physical aggression in marriage. Journal of Marriage and the Family, 52, 501-514.
- Stets, J. E. (1992). Interactive process in dating aggression: A national study. Journal of Marriage and the Family, 54, 165-177.
- Stets, J. E., & Straus, M. A. (1989). The marriage license as a hitting license: A comparison of assaults in dating, cohabitating, and married couples. In M. A. Pirog-Good & J. E. Stets (Eds.), Violence in dating relationships: Emerging social issues (pp. 33-52). New York: Praeger.
- Stets, J. E., & Straus, M. A. (1990). Gender differences in reporting marital violence and its medical and psychological consequences. In M. A. Straus & R. J. Gelles (Eds.), Physical violence in American families: Risk factors and adaptations to violence in 8,145 families (pp. 151-166). New Brunswick, NJ: Transaction.
- Stith, S. M., & Rosen, K. H. (1990). Family therapy for spouse abuse. In S. M. Stith, M. B. Williams, & K. Rosen (Eds.), Violence hits home: Comprehensive treatment approaches to domestic violence (pp. 83-99). New York: Springer.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. Journal of Marriage and the Family, 41, 75-88.
- Straus, M. A. (1990). The conflict tactics scales and its critics: An evaluation and new data on validity and reliability. In M. A. Straus & R. J. Gelles (Eds.), Physical violence in American families: Risk factors and adaptations to violence in 8,145 families (pp. 49-73). New Brunswick, NJ: Transaction.

- Straus, M. A. (1974). Leveling, civility, and violence in the family. Journal of Marriage and the Family, 36(1), 13-29.
- Straus, M. A. (1992). Sociological research and social policy: The case of family violence. Sociological Forum, 7, 211-237.
- Straus, M. A., & Gelles, R. J. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national samples. Journal of Marriage and the Family, 48, 465-479.
- Straus, M. A., & Gelles, R. J. (1990). Physical violence in American families: Risk factors and adaptations to violence in 8,145 families. New Brunswick, NJ: Transaction.
- Straus, M. A., & Sweet. S. (1992). Verbal/symbolic aggression in couples: Incidence rates and relationship to personal characteristics. Journal of Marriage and the Family, 54, 346-357.
- Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980). Behind closed doors: violence in the American family. Garden City, NY: Doubleday.
- Stuart, R. B. (1980). Helping couples change: A social learning approach to marital therapy. New York: Guilford Press.
- Surra, C., & Ridley, C. (1991). Multiple perspectives on interaction: Participants, peers, and observers. In G. Levinger & H. Rausch (Eds.), Studying interpersonal interaction (pp. 35-55). New York: Guilford.
- Szinovacz, M. E. (1983). Using couple data as a methodological tool: The case of marital violence. Journal of Marriage and the Family, 45, 633-644.
- Thomas, K. (1976). Conflict and conflict management. In M. Dunnette (Ed.), The handbook of industrial and organizational psychology. Chicago: Rand McNally.
- Tolman, R. M. (1989). The development of a measure of psychological maltreatment of women by their male partners. Violence and Victims, 4, 159-177.
- Tolman, R. M., & Bennett, L. W. (1990). A review of quantitative research on men who batter. Journal of Interpersonal Violence, 5, 87-118.
- Vuchinich, S. (1987). Starting and stopping spontaneous family conflicts. Journal of Marriage and the Family, 49, 591-601.

- Walker, L. (1989). Psychology and violence against women. American Psychologist, 44, 695-702.
- Walker, L. E. A. (1993). The battered woman syndrome is a psychological consequence of abuse. In R. J. Gelles & D. R. Loseke (Eds.), Current controversies on family violence (pp. 133-153). Newbury Park: Sage.
- Wampler, K., & Halverson, C. (1993). Quantitative measurement in family research. In Bass, Doherty, Larossa, & Steinmetz (Eds.), Sourcebook of family theory and methodology: A contextual approach.
- Wile, D. B. (1981). Couples therapy: A non-traditional approach. New York: Wiley.
- Wolf-Smith, J. H., & LaRossa, R. (1992). After he hits her. Family Relations, 41, 324-329.
- Yllö, K. (1993). Through a feminist lens: Gender, power, and violence. In R. J. Gelles & D. R. Loseke (Eds.), Current controversies on family violence (pp. 47-62). Newbury Park: Sage.
- Yllö, K., & Straus, M. A. (1981). Interpersonal violence among married and cohabiting couples. Family Relations, 30, 339-347.

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