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Attributions for Violence in Relationships: Do Battered Women Blame Themselves?

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ATTRIBUTIONS FOR VIOLENCE IN RELATIONSHIPS:

DO BATTERED WOMEN BLAME THEMSELVES?

by

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Abstract

Attributions in Violent Relationships:
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The central purpose of this research was to compare attributions of blame for spousal violence made by women who were in violent relationships with those of abused women who had sought shelter and those of women who had never been abused. Both clinicians and researchers (e.g., Frieze, 1979; Walker, 1979) have included victims of marital abuse among victims who self-blame, and have contended that self-blame contributes to remaining in an abusive relationship. Previous work, however, has not considered the repetitive nature of spouse abuse, and has routinely confounded self-causality with self-blame.

Nonabused women and abused women who remained in relationships were recruited with newspaper advertisements. Sheltered women were recruited at the shelter. All were screened with the Conflict Tactics Scales (Straus, 1979) for either two or more incidents of physical abuse in the past year, or no experience of partner violence. Demographics and factors such as marital satisfaction (Dyadic Adjustment Scale; Spanier, 1979) and childhood history of violence were collected. All subjects read vignettes depicting abuse, completed an unsolicited attribution measure (Harvey, Yarkin,

Lightner, & Town, 1980), and a structured attribution questionnaire. They attributed blame for one incident of violence, for continuing violence, and for self-experienced violence when applicable.

Analyses of variance indicated that the groups differed on several demographic measures (p's from .05 to .001), on partner childhood history of abuse ($p < .001$), and on marital satisfaction ($p < .001$). Sheltered women had suffered more violence than abused-remaining women ($p < .001$). There were no differences among groups in blame attributed to the male and female partners, for either single-incident or continuing violence. All groups found the male more blameworthy than the female. Blame to the female increased when abuse was repetitive. Abused-remaining women were higher in self-blame for experienced violence ($p < .05$), but this was accounted for by group differences in male violence and marital satisfaction. The results suggest that self-blame is not as prevalent among abused women as has been claimed.

Dedication

To all my parents

To my mother, who would have celebrated this day. And to Dad and Jane, who have been patient, informative, interested, and, most especially, loving.

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My thanks goes also to the women who served as subjects. To them I give the promise that better ways of helping in abusive relationships will be found. Data collection would not have been possible without the support of Muriel Fraser-Gordon, Director of the Norfolk Battered Women's Shelter, without the help of all the shelter workers, and without the special assistance of Dorothy Owens. For companionship through hours of interviews, and for competent and careful work, I owe my Research Assistant, Sherry Lynn Hamby Boyle.

There were others who helped me to put the data into an understandable form, including Dr. Larry Bart, Dr. Francine Peterson and Dr. Molly Tribble. For statistical consultation I am appreciative of the advice of Dr. Deborah Foss-Goodman and Dr. Herb Friedman. And most importantly, I wish to give special thanks to Larry Bart for over a year of love, forbearance, and support through this process.

Finally, I would like to thank the Society for the Psychological Study of Social Issues and the College of William and Mary for financial support of this dissertation.

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Introduction

Marital violence has been recognized as a problem only recently, but with this recognition has come realization of its enormous proportions. Almost 30% of American couples report an episode of physical violence occurring at least once in their marriage and approximately 1.8 million wives are beaten by their husbands every year (Straus, Gelles, & Steinmetz, 1980). According to Browne (in press), this figure indicates that a woman's chances of being assaulted by her partner are greater than those of a police officer's being assaulted on the job. Spouse abuse is the hidden source of injury in many hospital emergency room cases (Rounsaville, 1978), is associated with a high rate of chronic depression in victims (Gayford, 1975), and victims are found in disproportionate numbers on inpatient psychiatric wards (Carmen, Reiker, & Mills, 1984; Post, Willet, Franks, House, Back, & Weissberg, 1980). A survey conducted in a large mid-western city conveys the seriousness of the problem: 34% of the city's homicides and 32% of its aggravated assaults occurred in domestic disturbances (Stephens, 1977).

Despite the physical and emotional suffering produced by abuse, many women opt to remain in abusive relationships. Several theories have been advanced to explain this continued victimization. Among the factors cited have been socio-political values that endorse wife-beating (Gentemann, 1984; Greenblat, 1983; Straus et al, 1980), the lack of legal protection for battered wives (Bard, 1977; Buda & Butler, 1984; Kennedy & Homant, 1984; Stephens, 1977), the realities of economic

dependency (Gelles, 1976; Kalmuss & Straus, 1982; Mitchell & Hodson, 1983), and the intergenerational transmission of violence as a way of family life (Finkelhor, Gelles, Hotaling, & Straus, 1983; Straus et al., 1980; Walker, 1983). Although recognizing that abused women make their decisions in this political, social, economic, and familial context, the present research focused primarily on the psychological judgments associated with decisions to stay with violent partners. More specifically, the research concentrated on how women attributed blame for abuse, and on how these attributions were related to leaving versus remaining in abusive relationships.

Before delving into the small number of investigations that have dealt directly with abused women's attributions about physical abuse, this review will discuss more general research pertaining to the problem of violence in intimate relationships. This will provide the reader with a view of how such violence has been defined in the past, and what background factors have consistently been associated with it. Some of the factors reviewed additionally represent concepts competing with attributions of blame in explaining why women stay in abusive relationships.

Further on in the review, attribution theory will be outlined. Attribution theory constitutes the principal theoretical perspective of this study, and the review will include a detailed analysis of the attribution of blame. An examination of how attribution theory has been applied to close relationships will be presented, and will be contrasted with the literature on victimization, from which attributional studies of abused women have sprung. In the final portion of the review,

previous research on the attributions of abused women will be discussed, and the major hypotheses of the study will be delineated.

Possible Contributors to Violence in Intimate Relationships

Much of the empirical research on spouse abuse has concentrated on delineating the proportions of the problem, and on identifying characteristics that typify victims and aggressors. Perhaps the largest such study to date was conducted by Straus et al., (1980). In their massive telephone survey of 2,143 American adults, they defined marital violence as present when a subject stated that any one of a series of eight specific physical behaviors, ranging from pushing or shoving to the use of lethal weapons, had occurred in his or her marriage. Sixteen percent of the subjects reported at least one such behavior during the year previous to the study, and 28% reported at least one such behavior had happened in the entire length of marriage. The authors concluded that their figures were "very likely a substantial underestimate" (p. 33), because of their mass survey technique, their sample restriction to only currently married persons, and the possible failure of some persons to report or remember violence because they did not find it noteworthy, or, conversely, failure to report because of guilt or shame.

Because differing definitions of "relationship," differing definitions of "violence," and differing assessment techniques have been employed by investigators in the area of spouse abuse, it is difficult to evaluate the representativeness of the Straus et al. (1980) findings, and to discern the true prevalence of abuse. Rates of violence reported in American marriages appear to differ depending upon the methodology employed to obtain and interview respondents. For the time span of whole marriages, studies have obtained violence rates that range from

18% (of female respondents interviewed in shopping places, Dvoskin, 1981) to 40% (of male and female neighbors of violent couples interviewed in their homes, Gelles, 1974). After accounting for response and sample biases, Straus (1978) estimated that well over 50% of married couples experience a violent incident over the course of a relationship. When the occurrence of violence is examined only for one year preceding a study, the figures are lower, ranging from 9% (Dvoskin, 1981) for subjects interviewed in public settings to a high of 26% (Szinovacz, 1983) for privately interviewed, well-educated, middle-class husbands and wives. In order consistently to assess violent behaviors, all of the more recent studies (e.g., Jouriles & O'Leary, 1985; Szinovacz, 1983) have employed the Conflict Tactics Scales (Straus, 1979), an interview instrument constructed to measure violence for the Straus et al. (1980) survey. All have defined domestic violence as present when one or more incidents involving aggressive physical behaviors were reported. Such consistency is essential in establishing how truly widespread the problem of abuse is, in defining more precisely its characteristics, and in achieving comparability across studies. This is particularly important given the political and emotional nature of the topic.

The rates cited above were those found for husband-to-wife violence only. There is evidence, however, suggesting that wives are also violent in their relationships, and at rates commensurate with those of husband-to-wife violence (Hornung, McCollough, & Sugimoto, 1981; Jouriles & O'Leary, 1985; Straus et al., 1980; Szinovacz, 1983). If this is so, then who is really the victim in spouse abuse? According to Straus et al. (1980) and Straus (1979), it is the wives who suffer the

most severely from domestic violence because husbands have higher rates of the most dangerous and injurious forms of violence (such as battery and using a gun), and because once husbands become violent, they repeat violent actions more frequently than wives do. Wives are often attacked when they are pregnant (Gelles, 1974) and thus less able to defend themselves. Also, because of the greater physical strength of men, wives are more likely to be seriously injured in domestic disputes than men (Steinmetz, 1977). All in all, women appear to be at higher risk than men for more severe forms of abuse. This point having been established, the remainder of this review will concentrate only on male-perpetrated domestic violence, and on the female partner in relation to such violence.

With varying degrees of consensus in the literature, there have been several factors identified as important in the incidence and continuation of relationships where there is male violence. One of the most consistently cited factors is that battered women have few personal resources, such as income, educational achievement, or job skills, to support a life independent from their abusive partners (Gelles, 1976; Kalmuss & Straus, 1982; Mitchell & Hodson, 1983; Roy, 1977). These researchers interpret continuance in an abusive relationship as an economic rather than a psychological phenomenon. According to the economic argument, the financial constraints imposed by caring for young children, lack of job qualifications, and lack of job experience leave abused women with no alternative to remaining in their relationships. This idea was most systematically investigated by Kalmuss and Straus (1982), who found that severely abused women had higher "objective

dependency" than those who had suffered more minor forms of violence. This concept leads to the prediction that women remaining in abusive marriages would be more financially dependent than those who escape. But, as Walker (1983) cautioned, findings that physical abuse is more prevalent for women in lower socioeconomic circumstances should not be interpreted in an absolute sense as meaning that abuse only occurs in the lower socioeconomic strata, or to women who are occupationally unskilled. She reported that many women in her abused sample came from professional backgrounds and possessed a high degree of financial independence.

This observation seems somewhat contradictory to a portrayal of battered women as dependent. There are data suggesting that some women remaining in abusive relationships may possess higher economic, educational and prestige resources than their partners (Allen & Straus, 1979; Gelles, 1974; Hornung, McCollough, & Sugimoto, 1981). Examining a construct they labeled "status incompatibility," Hornung et al. (1981), found that relationships in which the woman was higher in occupational status than her husband carried higher risks of spousal abuse and very severe violence. They proposed that an incompatibility between marital partners occurs when the occupational and educational resources of one compared to the other are divergent from the relative resources of one partner to another found in the married population as a whole. Thus, an incompatible relationship is one that deviates from currently established social practice, such as a woman with a graduate education married to a man with no high school degree, or a female lawyer married to a manual laborer.

A more politicized conceptualization of status incompatibility has been proposed by Allen and Straus (1979), who described such relationships as violations of prevailing social norms supporting male superiority and domination. They contended that if a male does not possess a legitimate (i.e., educational and economic) source of superior power, he will attempt to gain power in his relationship by using violence. In their research, Allen and Straus found that as a wife's resources exceeded those of her husband, the level of violence in the relationship increased. This finding held for middle class as well as working class couples, although correlations were stronger for those with lower socioeconomic status.

It may be that status incompatibility is a factor only in the initiation of relationship violence, and is thus not directly contradictory to the dependency construct, which has been proposed as a reason why women stay in relationships after they become abusive. That is, violence may occur in many kinds of relationships, including status incompatible ones, but it may be only objectively dependent women who remain to suffer repetitive episodes. It is also possible that status incompatibility could be related to a woman's remaining in an abusive relationship because a more powerful and competent woman may take responsibility for the shortcomings of a less efficacious spouse and remain in the relationship out of a sense of obligation. Neither possibility has been investigated, however, and the two ideas have not been tested in the same study, where their effects can be compared directly.

Another factor that may influence women to remain in violent relationships is the connection that has been noted between a woman's

present involvement in a physically abusive relationship and violence witnessed or experienced in her family of origin (Gelles, 1976; Herrenkohl, Herrenkohl, & Toedter, 1983; Herzberger, 1983; Price & Armstrong, 1978; Straus et al., 1980; Walker, 1983) . As hypothesized by Walker (1983), a violent family background inculcates an acceptance of abuse, and models ways of coping with ongoing violent behavior rather than taking steps to terminate or escape it. Therefore, it would seem that women remaining in abusive relationships, such as those interviewed in the present study, would be more likely to have suffered a violent childhood environment than those who have left abusive relationships.

Other investigators (Fagan, Stewart, & Hansen 1983; Fitch & Papantonio, 1983) have found that the background of the male partner also predicted the presence of abuse in a relationship. In studies tapping both male and female partners, it was the background of the male that was most important to having an abusive relationship as an adult (Coleman, Weinman, & Hsi, 1980; Rosenbaum & O'Leary, 1981; Star, 1978). For men, early socialization to violence, either as the victim of abuse or as the witness of another's victimization, is presumed to teach and reinforce the use of violence as a problem-solving mechanism in interpersonal conflict (Fagan et al, 1983; Walker, 1983).

Although inconsistent, the overall findings suggest that there may be a social learning explanation for domestic violence (Walker, 1978; 1983), wherein abusive behavior is learned over generations through modeling in the family of origin. The inconsistency lies in the mixed evidence as to whether the vehicle for such transmission is the woman's learned tolerance of violence or the man's learned predilection to

utilize it, or both. Clearly, an investigation of women who remain in violent situations must assess the possiblity that such women come from violent familial backgrounds.

Depression and other mental health problems have been observed to accompany spouse abuse (Ball & Wyman, 1978; Carmen, Reiker, & Mills, 1984; Gayford, 1975; Hilberman, 1980; Mitchell & Hodson, 1983; Walker, 1979), and some researchers have reasoned that depression may strongly interfere with the energy and sense of self-efficacy that facilitates leaving an abusive relationship and establishing oneself independently (e.g., Mitchell & Hodson, 1983; Walker, 1979). As work by Mitchell and Hodson implied, depression in battered women is related to the extent of their partner's violence, combined with a lack of social supports and a passive, avoidant style of dealing with violent incidents. There is no evidence on the question of whether depression is the consequence of a violent relationship or whether, somehow, depression precedes the development of violence. But it seems reasonable to hypothesize that depression would be stronger in a group of women remaining in violent marriages as opposed to those who had left.

Alcoholism is a mental-health-related factor that has also often been associated with spouse abuse. It has frequently been cited as a stimulus to violence on the part of male partners (Coleman, Weinman, & Hsi, 1980; Fagan et al, 1983; Fitch & Papantonio, 1983; Hanks & Rosenbaum, 1977; Powers & Kutash, 1982; Rosenbaum & O'Leary, 1981; Snyder & Fructman, 1981), although heavy alcohol usage does not characterize all male abusers (Eberle, 1982; Rosenbaum & O'Leary, 1981; Snyder & Fructman, 1981) or all abusive incidents (Eberle, 1982). In fact, a strong consideration in evaluating this research is that alcohol

use provides an excuse for violent behavior, creating a method to avoid taking the blame for violence that may have seriously distorted male self-reports in these studies.

The relationship between alcohol use and violence does not hold, however, for women involved in abusive relationships. Abused women report very little alcohol use (Frieze & Knoble, 1980). The influence of male partner alcoholism upon a woman's ability to leave a violent relationship has not been posited, although it may be that an abused women could judge the alcohol, rather than her spouse, as generating the violence. She may remain, therefore, out of efforts to help her husband and in hopes of a change in his alcoholism.

There have been some lesser situational factors implicated as influential in abuse, and therefore of possible importance to the problem of women who remain in abusive relationships. These are the stresses arising from child-rearing (Dvoskin, 1981; Kalmuss & Straus, 1982), and the male partner's lack of employment (Fagan et al, 1983; Fitch & Papantonio, 1983). The relationship between these factors and a woman's continuance in her abusive relationship is unknown, although, as will be explained shortly, situational or environmental factors have certainly been found relevant to causal attribution theory and may therefore be relevant to the attributions of abused women.

And finally, there is one additional characteristic that has been cited as important in violent relationships and to research investigating them. According to Rosenbaum and O'Leary (1981), abusive relationships always take place in a context of marital discord. The authors measured marital adjustment in a sample which consisted of abused wives seen individually for treatment, physically abusive couples

seen conjointly, maritally discordant but nonviolent couples, and married couples who had not requested treatment. Although adjustment did not correlate significantly with severity or frequency of abuse in groups that were violent, lower scores (indicating discordant relationships) predicted incidence of an abusive relationship for the sample as a whole. This suggests that discord in a relationship provides a context or setting for the occurrence of physical abuse but is not correlated with its severity or frequency once a relationship becomes abusive. Because of this association between abuse and marital discord, Rosenbaum and O'Leary (1981) argued that research on domestic violence should include a nonviolent, maritally-distressed control to rule out confounding effects from marital discord. Aside from making this methodological point, the authors did not discuss more precisely why marital discord is important in spouse abuse, or how it may be related to staying or leaving a violent relationship.

Several of the above-mentioned factors associated with spouse abuse might also explain why women remain in the relationship and, therefore, represent possible alternatives to an attributional viewpoint. Principally, these are the financial dependency argument offered by Kalmuss and Straus (1982), the social learning theory proposition (Walker, 1983) that tolerance of abuse is learned from childhood experience, and the idea that depression interferes with a woman's ability to leave (Walker, 1979). Other factors discussed above, such as husband alcoholism, status incompatibility, marital discord, and situational stresses, may have some bearing on why women stay, or perhaps some influence on women's attributions about abuse. Therefore, the present research included measurement of these variables. In part,

this study represents an effort to evaluate further the importance of these factors and an attempt to estimate their strength vis-a-vis an attributional approach. But it is attribution theory, as it has been utilized in investigations of victimization, and as it has been translated into research about marital conflict, that constitutes the heart of this study.

Causal Attribution Theory

As defined by social psychologists, attributions are the cognitive processes invoked by the ordinary perceiver of an event in an attempt to discover and explain why it happened. Attribution theory proposes that ordinary people who make inferences about the causes of events are like naive scientists who draw distinctions between forces perceived as operating in the environment and those due to the actor or actors participating in the event (Heider, 1958). For example, an attribution to a causal feature located in the environment of an event, such as "he hit her because the kids were screaming," is generally called an "external" attribution. An attribution to an aspect of a person involved in the event, such as "he hit her because he is an intrinsically violent person," is generally called an "internal" attribution.

The most complete conceptualization of how attribution theory applies to events that occur repeatedly over time was presented by Kelley (1967). He proposed that people observe the covariation of cause and effect each time an event occurs, and make attributions according to which potential causes are present when the event occurs and which are absent when it does not occur. An individual would test the validity of his or her attribution by observing whether the presumed cause was

distinctively associated with the event (i.e., the event occurs every time the cause is present and not when it is absent), whether the association remained consistent over time and different environments, and whether other people agreed that the same cause was operating in the event. An assumption inherent in the attributional approach is that people, like scientists, are motivated to search for ways of predicting events important to them (Rothbaum, Weisz, & Snyder, 1982). Additionally, it is assumed that people modify their behavior in accordance with their attributional beliefs, although there is some controversy (Fincham, 1983; Wortman, 1983) as to the strength of the relationship between causal attributions and behavior.

Initially, attribution theory was formulated as a cognitive process whereby people enhance their adaptation to life. In accordance with this formulation, systematic biases uncovered in the ways that attributions are made in specified circumstances were theorized as due to self-serving motivations. Of particular interest to research on victimization are the just world hypothesis (Lerner & Miller, 1978) and defensive attribution theory (Shaver, 1970). Both theories attempt to account for observations that people often hold the victims of misfortunes accountable for what has happened to them. Lerner and his associates (Lerner & Miller, 1978) contend that observers attribute responsibility to a victim because they have a need to believe in a "just world," where people get what they deserve and deserve what they get. Victims are blamed in order to preserve this belief and, correspondingly, the observer's sense of the meaning inherent in his or her environment (Janoff-Bulman & Frieze, 1983).

Defensive attribution theory (Shaver, 1970) postulates that observers attributing responsibility for accidents that are very probable and severe will implicate the victim because of a need to avoid the realization that such a thing could happen to themselves. This point is enhanced by the finding that, when the observer judges the victim as similar to him or herself, victim responsiblity is minimized, ostensibly because in this case the observer perceives that he or she is also vulnerable to misfortune. These theories (Lerner & Miller, 1978; Shaver, 1970) were developed in laboratory settings utilizing college student populations. More recent attempts have been made to extend them to populations of real victims and to the assignment of self-blame (e.g., Frieze, 1979; Janoff-Bulman & Wortman, 1977; Tennen, Affleck, & Gershman, 1986).

A major problem exists in interpreting the victimization research, however. What has generally been measured in this area ranges imprecisely from attributions of self-causality through self-responsiblity to self-blame, nevertheless, it is almost exclusively referred to as "self-blame." For reasons that will be detailed later, there is no basis for assuming that these concepts are equivalent, and, in fact, substantial grounds to believe they are not (Shaver, 1985; Shaver & Drown, 1986). While inconsistencies in the results may be partially due to such differences as sample selection and types of victimization studied, the many different and inconsistent ways that "self-blame" has been operationalized have certainly contributed.

In this "self-blame" literature, biases in attribution have not always been found to be self- or adaptation-enhancing as was claimed in earlier victim-observer research (Miller, 1978; Shaver, 1970). In some

circumstances biases have been related to less-than-positive coping. Of particular relevance to the problem of victims of spouse abuse are findings that attributional explanations implicating the self as causative of negative events are associated with depression (Abramson, Seligman; & Teasdale, 1978; Golin, Sweeney, & Shaeffer, 1981; Kuiper, 1978; Peterson, Schwartz, & Seligman, 1981). In addition, attributions made by victims of disease, crime, and accident are related to their subsequent adjustment, with attributions to personal, characterological causes associated with distress and deficits in motivation to recover (Janoff-Bulman, 1979; Janoff-Bulman & Wortman, 1977; Pagel, Becker, & Coppel, 1985).

Can we conclude, therefore, that observers engage in victim blame to enhance their own sense of security and that victims join them, blaming themselves in a manner that decreases their personal efficacy and adjustment? According to Janoff-Bulman (1979) a distinction, taken from Lerner and Miller (1978), must be made between victim attributions that their behaviors caused the victimization (behavioral self-blame) and attributions that something about their personal character made the victimization happen (characterological self-blame). In her research with depressed college students and with the counselors of rape victims, Janoff-Bulman determined that depressed students made characterological attributions for negative events, indicating a belief that they personally deserved them, whereas rape victims (only indirectly assessed) made behavioral attributions, indicating a belief that it was their behavior that led to the rape. The author inferred that behavioral self-blame is adaptive, helping a victim to maintain a sense of control over what happens to him or herself, because behavior is

changeable. Also, a behavioral attribution would lead to the expectation that future victimizations could be avoided. On the other hand, an attribution to one's character, a relatively stable aspect of oneself, would lead to expectations of continued negative events in the future, and consequently, to depression.

The behavioral/characterological distinction (Janoff-Bulman, 1979; Lerner & Miller, 1978) has been applied to victims with mixed results. Some studies (e.g., Janoff-Bulman, 1982; Pagel, Becker, & Coppel, 1985; Tennen, Affleck, & Gershman, 1986; Wortman, 1976) have indicated a strong relationship between behavioral self-blame and positive coping, but others (e.g. Major, Mueller, & Hildebrandt, 1985; Taylor, Lichtman, & Wood, 1984) have not, perhaps due to the above-mentioned difference in operationalizing self-blame.

Moreover, as Miller and Porter (1983) pointed out in their theoretical analysis of victim self-blame, both the behavioral/characterological distinction and the research testing it have been based on victims of single events. Although seemingly an irrational conclusion given the strength of forces of chance operating in accidents, and of criminal intent operating in sexual assaults, self-blame in single event victimizations is hypothesized to preserve the victim's sense of control over his or her environment. As a consequence, the victim is empowered to take responsibility for his or her recovery.

But self-blame of any kind may have different connotations for a repeatedly victimized group of people than for victims suffering single-occurrence crises. For people in repetitively violent circumstances, it would seem that self-blame of any type would be

accompanied, not by a sense of control and self-efficacy, but by depression and helplessness as the victimization continues. Because abused wives suffer repeated victimization, there is, according to this analysis, no type of self-blame that would be adaptive. So, it seems that in order to improve upon previous studies, research on spouse abuse must take the repetitive nature of the violence suffered into account. Additionally, any work that attempts to measure self-blame rather than self-causality or self-responsiblity must avoid the prevalent tendency in the literature to confound and muddle these concepts (Shaver & Drown, 1986).

There are several theoreticians (Brickman, Rabinowitz, Karuza, Coates, Cohn, & Kidder, 1982; Fincham & Jaspars, 1980; Shaver, 1985; Shultz & Schleifer, 1983) who have indicated that questions as to the cause of an event, questions as to who is responsible for an event, and questions as to who is to blame for an event may result in very different answers. Shultz and Schleifer (1983) contended that attribution theories, and consequent research, have been plagued by conceptual confusion between what is meant by causation, what is meant by moral responsibility, and what is meant by eligibility for punishment or reward. Taking their arguments from analyses of legal judgments, the authors asserted that a judgment about causation of an event is a presupposition for a judgment of responsibility, but the judgments differ, in that "...causation refers essentially to event generation, responsibility to moral evaluation of an actor, and punishment/reward to the recommended consequences for an actor" (p. 60). Likewise, Fincham and Jaspars (1980), interpreting evidence from previous research, argued

that "...people respond to questions of causality, responsibility, blame and punishment in different ways" (p. 87).

These distinctions were expanded by Shaver (1985). In his analysis the attribution of blame was conceptualized as the final outcome of a cumulative process of social judgment about a negative consequence. He hypothesized that in order to establish blameworthiness for an action, the perceiver must first make a judgment of the extent to which the person in question caused the event. At this point in the process, a person with less perceived causal involvement in the incident (because of other viable causes contributing to it) becomes less eligible for blame than a person seen as the single and necessary cause. Once the causal judgment is made, the perceiver assesses the probability that the actor involved did know or should have known of the possible consequences of his or her action. At this level, an actor seen as unintentionally causing an event could be held responsible for its consequences because of lack of foresight (should have known the consequences) or negligence (did know the consequences but failed to heed them). Someone perceived as aware of the consequences is potentially in store for blame. The next task in the process is to discern the degree to which the actor intended the outcome of the event.

With the judgment of intent comes the attribution of responsibility. Responsibility may be mitigated if the action is perceived as coerced or forced by insurmountable external or internal forces. The final inference of degree of responsibility rests upon the perceiver's assessment of the actor's capacity to understand the wrongfulness of his or her action. Full responsibility is not attributed if the actor is seen as unaware of the moral implications of

acting. This is the basis of the "not guilty by reason of insanity" plea in legal judgments.

The assignment of blame finally rests upon the attribution of responsibility. When allocating blame, the perceiver may consider any justification (an assertion that although the act itself was reprehensible, it served a greater good) or excuse (a statement that attempts to change the perceiver's earlier judgments about the causality, intentionality and responsibility of the person being judged) that the actor may make for his or her behavior. There will be a lessening or even elimination of blame if these claims are accepted by the perceiver.

This model of blame attribution as a process of several incremental and cumulative judgements, including the judgment of causality and the judgment of moral responsibility. According to this complex model, causation, responsibility and blameworthiness are distinct but related concepts, and cannot be equated with one another. In some cases, a person may be considered the cause of a harmful event, but may not be held responsible. For example, a soldier under orders who kills an enemy, or a child who commits a social blunder. Even when judged responsible for a harmful consequence, a person may escape blame and social sanction by offering a reasonable excuse or justification for the behavior. These sorts of interpersonal interchanges occur every day.

The preconditions of blame, therefore, are determined by decisions that a person involved in a negative event caused it to occur with knowledge of the consequences, intentionality, voluntary choice, and the capacity to distinguish right from wrong. In addition, a judgment of

blameworthiness assumes that no adequate or credible justifications or excuses for the action have been identified.

This rational model of the ideal perceiver does not attempt to account for the possible effects of perceiver bias and distortion. Use of this framework does not mean that abused women, or any other people under duress, do not engage in such maneuvers. The usefulness of the model lies in careful definitions of, and discriminations between, the concepts of causality, responsibility, and blameworthiness. Such discriminations in measuring attributions are not only mandated by theoretical analyses (Fincham & Jaspers, 1980; Shultz & Schleifer, 1983; Shaver, 1985) but recent research confirms the need for these distinctions (Critchlow, 1985; Fincham, 1985b; Fincham, Beach, & Nelson, in press; Tyler & Devinitz, 1981). In particular, work done by Fincham et al. with spouses involved in distressed marriages indicated that causal attributions do not predict affective import and intended responses to a negative spouse behavior, but attributions of responsibility/blameworthiness do.

Thus, attribution theory itself offers a well-defined conceptual framework, but its translation into the study of real life victims has been less than precise. There are strong indications that this imprecision (primarily, the confusion of attributions of cause with attributions of blame) may have obscured the relevance of the theory for this area. Victimization researchers have been unmindful of the underpinnings of the theory they have embraced. In addition, however, those who have investigated spouse abuse have ignored results derived from another relevant application of attribution theory. Just as spouse abuse is a particular type of victimization that involves repetitive

negative experiences, it is also victimization that occurs in the context of a close and intimate relationship. There is an existing literature describing attributions in close relationships.

Most early studies of the attributions made in close relationships concentrated on causal attributions made for negative partner behaviors (e.g., Harvey, Wells, & Alvarez, 1978; Orvis, Kelley, & Butler, 1976). For example, Orvis et al. asked subjects involved in relationships to recount instances where their explanation for a negative event differed from their partners'. The authors classified the ensuing explanations according to several dimensions. They noted that partners experiencing a negative behavior tended to attribute it to the actor's personal characteristics or negative attitudes toward the partner, whereas actors attempted to excuse the behavior, attributing it to outside influences or transitory personal states, and to justify it by pointing out that it was what anyone would do or that it was based upon good intentions. Not surprisingly, one of the negative behaviors reported was aggressive (violent) behavior.

In another early article that partially replicated the findings of Orvis et al. (1976), Harvey et al., (1978) were concerned with the causal attributions made by partners who had recently separated from their spouses. Written records made by subjects were collected for the six-month period following separation, a period of "incessant causal analysis" (p. 256). While 70% of the subjects "revealed an unfavorable view of themselves" (p. 254), these negative self-attributions were outweighed by the fact that "the ex-partner essentially was imputed the greatest percentage of blame for the marital difficulties" (p. 257). Incidentially, three of the eight women in this study imputed major

importance to alcohol consumption and physical abuse as cause for their separation, and two indicated that the decision to separate occurred when their husbands physically assaulted them.

These initial investigations into relationship disharmony were followed by a series of studies that concluded that attributions in close relationships were greatly influenced by relationship satisfaction (e.g., Fincham, 1985b; Fincham et al, in press; Fincham & O'Leary, 1983; Holtzworth-Munroe & Jacobson, 1985; Madden & Janoff-Bulman, 1981). Much of this research measured causal attributions. Thus, Fincham and O'Leary (1985) found that maritally distressed spouses rated the causes of negative partner behavior as more global (likely to affect other areas in the relationship) than the causes of positive behaviors. Also, affective responses to partner behaviors were better predictors of a spouse's reaction than causal attributions. Similarly, work by Holtworth-Munroe and Jacobsen (1985) revealed that distressed couples made "distress-maintaining" (p. 1403) attributions, explaining negative behavior as "due to the partner or his or her personality traits, voluntary, intentional or done with negative intent, stable, and global" (p. 1403), with greater attributional activity for negative spousal behaviors than positive ones. Note that some of the causal dimensions included by Holtzworth-Munroe and Jacobsen, such as "voluntary" and "intentional," are highly relevant to the attribution of blame (Shaver, 1985).

Other research has more directly measured attributions of blame in relationships. According to Fincham (1985a), distressed spouses are more likely than partners in nondistressed relationships to blame their mates as the source of marital difficulties. Likewise, Madden and

Janoff-Bulman (1981) concluded that "blaming one's spouse for marital problems is negatively associated with marital satisfaction" (p. 663). Further research by Fincham and his associates (in press) revealed that maritally distressed partners rated the causes of negative spouse behavior as more global, more negative in intent, more selfishly motivated and more blameworthy than nondistressed partners. Moreover, as mentioned above, attributions of blame (the authors label their measure as attribution of responsibility, but it includes a direct assessment of blame) predicted the affective connotations of the behavior and the spouse's intended response to it more effectively than attributions of cause.

In summary, investigations of attributions in close relationships indicate that, in situations where couples disagree, partners view a negative behavior on the part of their mate as due to the mate's personal characteristics and negative attitudes (Orvis et al., 1976). Furthermore, although it is problematic to directly equate the different measures of cause and blame employed, it appears that those who are more maritally distressed or who are separating from relationships are more likely to blame their partners for negative behaviors than those who are maritally satisfied (Fincham, 1985a; Fincham et al., in press; Harvey, Wells, & Alvarez, 1978; Holtzworth-Munroe & Jacobson, 1985; Madden & Janoff-Bulman, 1981). Finally, there are indications that attributions of cause are not substantially related to spouse reactions to negative behaviors (Fincham et al., in press; Fincham & O'Leary, 1985; but attributions of blame are (Fincham et al., in press).

If, as Rosenbaum and O'Leary (1981) suggested, marital distress is a necessary context for physical abuse, then the above findings hold

considerable relevance for researchers examining the attributions associated with abuse. Yet studies about spouse abuse have directly stemmed from investigations about victimization, and as such have not tapped the marital distress literature.

Attribution in Violent Relationships

A recent discussion of the literature on victimization (Janoff-Bulman & Frieze, 1983) included battered women among the ranks of victims who self-blame for their misfortunes. That women in abusive relationships blame themselves for their abuse, and that this self-blame is a factor interfering with their efficacy in changing their situation, has also been asserted repeatedly in the clinical literature (Ball & Wyman, 1978; Carmen, Rieker, & Mills, 1984; Dutton & Painter, 1981; Goodstein & Page, 1981; Hilberman, 1980; Hilberman & Munson, 1978; Rounsaville, 1978; Rounsaville, Lifton, & Bieber, 1979; Walker, 1979). Yet there have been only two published studies that formally reported data on attributions in this population.

The first such study (Frieze, 1979) does not appear to have found a high degree of "self-blame" among battered wives when the data are examined directly. Although Frieze discussed her results as measures of self-blame, what she actually measured was self-causality. Attributions in Frieze's study were assessed by a question, "Why do you think he might have done this?" (p. 85), which was posed after a brief description of a woman whose husband had beat her once, and was coded for locus of causality. The manner in which this question was framed may have precluded attributions to anyone but the male partner as the cause of the incident, and indeed, the investigator reported that 56 to

81 percent of the various samples of women she studied indicted the husband rather than the wife as causing the incident.

During the same study, Frieze (1979) also asked her subjects who had been abused to respond to questions regarding their own experiences. About the first violent incident, she asked "Did you understand at the time why he was violent?" (p. 100). A different question was posed to assess the victims' total experience, "Now, thinking back on all the times he was violent, do you notice any general pattern(s) to his violence, and particular times more than other that you might expect it?" (p. 100). In regards to the first incident, she reported that 27% of women recruited from a shelter and 41% of a group of abused women recruited from the community by newspaper advertisement attributed causality to themselves. She does not give data for the question about overall violence, but states that "there were fewer 'Don't Knows' and more husband-blaming" (p. 100).

The author (1979) concluded that "Although these data do not strongly support the idea that most battered women will act like other victims and take primary responsibility for their battering, a relatively high level of self-blame is evident" (p. 101). Additionally, Frieze noted that her results differed from others in the literature that claim a high degree of self-blame on the part of battered women (Ball & Wyman, 1979; Hilberman & Munson, 1978; Walker, 1979). She cited possible sampling differences, although the previous studies were primarily theoretical and clinical papers that did not delineate the characteristics of their samples.

This study is representative of the literature on victimization. Besides the above-cited methodological problems, Frieze (1979) measured

causal attributions for marital violence, yet labeled her findings as pertaining to self-blame. Contrary to her conclusions, the results appear to indicate that abused women view a violent partner as the cause of their beatings, but the question as to who they blame is left open.

There is one other published study that examined attributions in violent relationships. Following Frieze's (1979) work, Shields and Hanneke (1983) measured causal attributions made by wives for husband violence, and assessed the attributions of husbands in addition. Subjects were referred for the research by individuals, organizations, and social service agencies, including battered women's shelters, self-help organizations for alcoholics, police departments, and private therapists. Both husbands and wives were asked why the husband had been violent, "i.e., what ideas they had about what cause(s/ed) him to be violent with...the wife/partner, any former wives/partners" (p. 518). The list of targets for violent behavior also included strangers, authority figures and a variety of other family members. The authors coded subject responses according to the attribution scheme first used by Orvis et al. (1976) that consisted of 12 reasons ranging from environmental stressors and the influences of other people to the state and personal characteristics of the actor. The resulting codes were, in turn, classified as internal (the cause pertains to something about the actor) or external (the cause pertains to something or someone in the actor's environment).

They found that husbands attributed their violence to external factors, but wives attributed both husband violence and their own violence to internal factors. In regards to violence against wives, the women judged the cause of the violence to be due to something about the

husband. In their conclusions, Shields and Hanneke stated that "The findings generally are not consistent with research finding victim-blame or a tendency of self-blame on the part of victims...but are consistent with some research on battered and nonbattered women which has found husband-blaming." (p. 522).

Neither of the studies above (Frieze, 1979; Shields & Hanneke, 1983) uncovered a great deal of "self-blame" on the part of abused women. These data seem to contradict a large body of published clincial observation where self-blame is consistently cited as a major problem for victims of spouse abuse (Ball & Wyman, 1978; Carmen et al., 1984; Dutton & Painter, 1981; Goodstein & Page, 1981; Hilberman, 1980; Hilberman & Munson, 1978; Rounsaville, 1978; Rounsaville et al, 1979; Walker, 1979). But, if conceptual analyses (Fincham & Jaspers, 1980; Shaver, 1985; Shultz & Schleifer, 1983) are veridical, neither of the studies actually measured self-blame. Perhaps the use of a discriminative framework, such as that described by Shaver (1985), would be more incisive in detecting true self-blame in violent relationships.

As Miller and Porter (1983) indicated, there are also factors operating in the victimization of spouse abuse that are not pertinent to other studied types of victimization, but may be quite important to the attributions that abused women make. The authors (1983) specifically implicated the repetitive circumstances of wife abuse as presenting additional considerations that have not been raised in the victimization literature to date. Prediction from Kelley's (1967) causal attribution theory would suggest that in conditions where an event is repeated, the perceiver would attribute causality to what remains constant over these repetitions. In the case of a battered woman, her internal states may

vary over abusive events, her actions may be different before each beating, and the environment where the event occurs may be different, but there is one constant—a violent partner. In an unpublished paper, Frieze and Washburn (1979) cite data from 42 battered women that support this prediction. When asked about the first incident of marital violence, 26% thought they had caused it and 24% thought the husband had caused it. The remaining women did not report a reason for the violence. When asked, then, about the pattern of violent incidents in the relationship, 43% causally implicated their partner and 17% causally implicated themselves. Thus, as also indicated by Frieze (1979), over repeated circumstances, attributions about victimization may change.

In their interpretation of the implications of repetitive abuse, Miller and Porter (1983) suggested that feelings of self-blame on the part of victims may not be due to the belief that they caused the violence, but to beliefs that they are at fault for its continuance. "As the duration of the violence increases...abused women may assume less responsibility for causing the violence but they may assume more responsibility for its continuation" (p. 146). This is precisely the sort of difference that could be detected by using an attributional model that distinguishes causality, responsibility and blame, and by assessing attributions for both the cause and the continuation of physical violence.

Hypotheses

The present investigation was designed to measure the attributions of blame made by female victims of physical abuse in relationships, and to contrast those attributions made by abused women who remained in their relationships with those of women who had left for a battered

women's shelter. Taking into account considerations raised in both the victimization (Miller & Porter, 1983) and marital distress (Rosenbaum & O'Leary, 1981) literatures, attributions were measured for one incident and for continuing incidents, and the degree of marital distress accompanying violence was assessed. Because the subjects included a group of women (those who have been physically abused yet have not left their relationships) that has not been closely examined in past studies, demographics and characteristics found relevant in this past literature were measured and analyzed.

The specific hypotheses generated were as follows:

1. Subject groups will differ in the blame attributed to abused women depicted in a structured attribution measure. Women who are battered but remaining in their relationships will be the highest in victim blame. Women in the group who have been battered but have left their relationships for a shelter will report less blame to a victim. As an alternative comparison group, nonbattered women will report the least blame.

2. Subject groups will differ in the blame attributed for a continuing battering relationship described in the structured attribution measure. Battered women remaining in relationships will attribute the most victim blame. Battered women who have left their relationships will report the least. Because of the contrast between the battered groups, blame attributed by nonbattered women will fall at an intermediate level.

The central purpose of this study is to examine <u>self-blame</u>, as it is inferred from the blame attributed to victims in standardized vignettes. This has been done to ensure maximum control over the

stimuli to which subjects are responding. Thus an important assumption underlying the research is that women will react projectively to the vignettes, attributing blame to pictured victims in the same manner that they attribute it to themselves. This assumption will be checked by questions measuring the blame women in the battered groups attribute to themselves for their own actual physical abuse.

Method

Subjects

A total of 56 women participated in the study. All women were required to be currently involved in a marital or cohabiting relationship of at least one year's duration. For the sample as a whole, the mean age was 29.88 years (range = 19 - 69, SD = 10.43), the mean education was 12.68 years (range = 7 - 17 years, SD = 2.28), the median net monthly income was $400.00 (range = $0 - $2,000, SD = 477.53), and the mean length of the relationship was 5.95 years (range = 1 - 45, SD = 6.35). Forty-five (80%) of the women were white and 11 (20%) were non-white. All subjects were paid $15 for their participation. Women were divided into three groups on the basis of two criteria. First, they were categorized by method of recruitment for the study, and second by presence of male violence reported in their relationship.

Seventy-six respondents to a newspaper advertisement for a study on relationships (Appendix A contains a full copy of the ad) were screened with the Conflict Tactics Scales, Form N (CTS; Straus, 1979; full text in Appendix B) to identify two groups. The first consisted of 20 women who had never experienced partner-inflicted physical violence in any of their adult relationships. The second consisted of 16 women who reported two or more episodes of partner-inflicted physical abuse in their relationship during the previous year. Physical abuse was defined as report of behavior occurring during an argument that fell within the physical violence factor of the CTS. These eight behaviors ranged in

severity from a partner's throwing of objects at his mate to the use of a knife or a gun. This definition of physical abuse is slightly more stringent than that obtained in Straus' (1979) factor analysis of the instrument, which included a partner's threat to throw objects and his throwing of objects at targets other than his spouse as physically abusive. For the purposes of the present study it was necessary to ensure that the violence had been directly physical, repeated, and was a current factor in the relationship. For abused women recruited through the newspaper, the mean score for partner-instigated physical violence on the CTS, with each individual score consisting of the number of violent items endorsed multiplied by a frequency category, was 7.13 (ranged = 2 - 19, SD = 5.94). This means that women in this group had, on the average, been abused at least seven times during the past year. Forty-one (53%) of the women who answered the advertisement fell into neither of the above groups because they had histories of one or more incidents of violence in an intimate relationship, but they had not experienced two incidents of abuse within the past year. Thus, a total of 57 (74%) of the women interviewed had experienced some physical form of partner violence during their adult lives.

The third group of 20 women utilized in the study was recruited from the battered women's shelter in Norfolk, VA. As by definition these women were not currently living with their partners, they were selected if they had sought shelter within one month before study involvement. An effort was made to meet with them as soon as possible after shelter entry in order to minimize the impact of shelter programs upon their attributions. The sheltered subjects averaged 7.9 days (range = 1 - 30, SD = 7.7) of residence in the shelter. Thirteen (65%)

were in the shelter for the first time, six (30%) for the second time, and one (5%) woman for the fifth time. The mean male violence score for this sheltered group was 24.65 (range = 10 - 41, SD = 10.40).

The study compared women remaining in abusive relationships and those who had left such relationships for the shelter in order to detect any change in attributions that occurred with attempts to leave or change a violent situation. The nonabused group was included as a control. Unfortunately, the women selected to fill these criteria also differed significantly in level of violence experienced and on several demographic variables. These will be reported in more detail below.

Materials

Demographic questionnaire. This questionnaire, consisting of 41 dichotomous, fixed-alternative, frequency-scaled, and open-ended questions (full text in Appendix C) was administered to all subjects in a structured interview. The primary purpose was to gather information about standard demographic variables such as age, race, and economic status. There were also questions specifically designed to assess subject characteristics important to the study, such as relationship factors, and, for abused subjects, aspects of the abuse (duration, perceived severity, injuries) and of help-seeking behaviors. The final purpose behind the construction of the questionnaire was measurement of the demographic characteristics discussed above that have previously been found to be relevant to the incidence and continuation of physically abusive relationships.

Dyadic Adjustment Scale (DAS). The Dyadic Adjustment Scale is a 32-item, self-report measure of dyadic satisfaction developed by Spanier (1976; see Appendix D for full scale). The DAS was used here to

statistically control for the effects of marital distress upon attributions. In constucting the scale, Spanier (1976) submitted items judged for content validity to both married (n = 218) and recently divorced (n = 94) persons. The resulting 40 items that significantly (p < .001 level) discriminated between the two groups were factor analyzed, and those loading with a value of .30 or above on four oblique factors were retained. The first factors, dyadic consensus, consists of items such as extent of agreement on handling family finances and on amount of time spent together. The second factor, dyadic satisfaction, consists of items such as frequency of quarrels and extent of desire to maintain the relationship. The third factor, dyadic cohesion, consists of items such as frequency of laughing together and of having stimulating discussions. The fourth factor, affectional expression, consists of items such as agreement on sexual relations and demonstrations of affection. These final questions were submitted to both married and nonmarried cohabiting couples for judgments of validity, appropriateness, and relevance.

In addition to the content and criterion-related validity discussed above, the construct validity of the DAS is indicated by an .86 correlation (Spanier, 1976) with the Locke-Wallace Marital Adjustment Test (Locke & Wallace, 1959), the most established scale in the field. The DAS has an internal reliability of .96 (Spanier, 1976). It is frequently used in the field of marital/dyadic research (e.g., Holtzworth-Munroe & Jacobson, 1984; Johnson & Greenberg, 1985). For the purposes of this study, the DAS was modified slightly for use as an interview rather than a self-report instrument. It was chosen because of wording that made it appropriate for use with nonmarried couples.

Conflict Tactics Scales, Form N (CTS). The Conflict Tactics Scales (Appendix B) is an interview instrument that consists of 18 items tapping the frequency of concrete and specific behaviors occurring during family conflicts. The CTS was used here to measure marital violence and to screen for study eligibility. Form N was developed for a national survey that assessed spousal violence among 2,143 respondents (Straus, 1979; Straus et al., 1980). Items are arranged to reflect increasingly coercive and potentially harmful tactics used during a disagreement, beginning with verbal reasoning and proceeding through verbal aggression to the use of physical force. Factor analysis of survey responses indicated four factors, three of which corresponded to the groupings above, plus one factor loading almost exclusively on the use of a knife or gun (Straus, 1979).

The CTS has internal consistency reliabilities of .56 for the reasoning factor, .79 for the verbal aggression factor and .82 for the physical violence factor (Straus, 1979). Evidence for construct validity is derived from the consistency with which studies utilizing the CTS (e.g., Straus et al., 1980) have replicated previously established findings such as the high rate of verbal and physical aggression in American families (Gelles, 1974) and the negative correlation between socioeconomic status and violence (Straus, 1974). Normative data by percentiles are available for the CTS (Straus et al., 1980) and the instrument is currently used extensively in family violence research (e.g., Costello, 1983; Dvoskin, 1981; Jouriles & O'Leary, 1985; Szinovacz, 1983; Wolfe, Jaffe, Wilson, & Zak, 1985).

Behaviors qualifying as violent on the CTS are: threw something at the person; pushed, shoved or grabbed the person; slapped the person;

kicked, bit or hit with a fist; hit or tried to hit with something; beat up the person; threatened with a knife or a gun; used a knife or a gun. Women were asked to rate the frequency that these behaviors were performed during the past year, both by themselves and by their partners. Frequency categories for violent items were added separately for each partner in the dyad to produce a total violence score for the female partner and a total violence score for the male partner.

Pretest for vignettes. The assessment of subject attributions necessitated the construction and pretest of standard vignettes depicting incidents of spouse abuse. Vignettes were pretested and subsequently selected to ensure their relative homogeneity for the degree of causality, responsiblity, and blame attributed to the actors. Past work in the attribution of responsibility (Shaver, 1970) has indicated that the severity of a negative event influences attributions and so the vignettes were examined for the comparable severity of the physical violence portrayed. Another purpose behind the pretest was to identify incidents that differed in how likely (probable) they were perceived to be. In the initial planning of the research, a high versus low probability manipulation of stories was proposed, because the likelihood of an incident enhances attributions of victim responsibility (e.g., Shaver, 1970).

To make the material as realistic as possible, taped interviews were conducted with two women residing in battered women's shelters. The tapes were edited to produce 12 stories, each consisting of a half-page, double-spaced description of a marital interaction resulting in physical abuse. Names were changed over stories so they would appear

to represent different couples. The severity of the abuse was held relatively constant at slaps and a punch or kick for each vignette.

The stories were presented to 12 women with histories of physical abuse. Each story was appended to a structured questionnaire asking subjects to rate: the likelihood (probability) of the incident, for repetition in this relationship and for occurring in another relationship; the physical harmfulness of the incident; the extent to which the male partner and the female partner each separately caused the violence; the extent to which the male partner and the female partner were each separately responsible for the violence; and the extent to which the male partner and the female partner were each separately to blame. These questions were followed by a section asking women to rate each individual CTS item for physical harmfulness. Administration of the questionnaires was done either in group sessions with the experimenter present to answer questions, or individually with a shelter worker handing out questionnaires for subjects to complete on their own time. All ratings were made on 7-point scales with labeled endpoints, so that a rating of "1" meant the subject had judged that the least possible amount of a particular quality was operating in the stimulus, and a rating of "7" meant she had judged the most possible.

To detect rating differences due to individual stories, the results were analyzed in a 2 x 12 (Experimenter x Story) analysis of variance, with type of administration (experimenter versus shelter worker) as a between-subjects variable and story (the 12 individual stories) as within-subjects variables. Each rating served as a dependent variable. There were no significant effects due to story, however, there were several trends suggesting differences due to

administration. Subjects tended to judge the probability of an incident's repeating itself in the same relationship as higher when the questionnaires were administered by the experimenter (M = 6.64) as opposed to the shelter worker (M = 6.17), F (1, 10) = 4.65, $p < .06$. There was a tendency for the incident to be viewed as more harmful in cases where the experimenter was present (M = 6.71) versus those where the shelter worker administered the materials (M = 6.17), F (1, 10) = 4.27, $p < .07$, and for the woman to be seen as less blameworthy in the experimenter condition (M = 1.26) than in the shelter worker condition (M = 2.39), F (1, 10) = 3.78, $p < .08$. These results suggested that subjects reacted to the presence of the experimenter by producing ratings more consistent with the teachings of the shelter (e. g., once violence is present in a relationship it will be repeated, any violence is extremely harmful, the woman involved in a violent relationship is not responsible or to blame) than those subjects who obtained their questionnaire from the shelter worker and completed it in privacy. Accordingly, individual stories were examined for high reactive and low reactive qualities.

Two stories were selected as highly reactive. They were chosen because inspection of story means across all dependent variables indicated that overall, these vignettes yielded the greatest differences between the experimenter and shelter worker conditions. One of the stories described a husband who hit his wife after accusing her of losing a part to their stove, and the other told of a man who hit his mate because he'd lost his job. Two other stories were selected as being low in reactivity because, overall, they yielded the least differences under experimenter versus shelter worker administration.

One of these vignettes was about a jealous husband who hit his wife because she failed to call home after an excursion, and the other described a man who hit his mate because she didn't have his favorite shirt ironed.

An analysis of variance was performed to confirm the viability of the reactivity classifications. Reactivity and administration served as independent variables. From this analysis there was a significant main effect for reactivity such that there was more rated probability that the incident would recur in the same relationship for low reactive stories (M = 6.63) than for high reactive stories (M = 6.20), F (1, 10) = 5.54, $p < .05$. There was also a main effect for reactivity such that there was more male partner blame rated for low reactive stories (M = 6.67) than high reactive stories (M = 6.17), F (1, 10) = 5.54, $p < .05$.

This analysis yielded several significant interactions. There was an interaction between reactivity and administration such that in the high reactive condition, ratings of female causality made by shelter worker-administered subjects were greater (M = 3.25) than ratings made by experimenter-administered subjects (M = 1.00). In the low reactive condition there was less difference between shelter worker-administered (M = 2.34) and experimenter administered (M = 1.88), F (1, 10) = 5.73, $p < .05$. There was a similar interaction on responsibility such that in the high reactive condition, ratings of female responsibility made by shelter worker-administered subjects (M = 3.50) were greater than ratings made by experimenter-administered subjects (M = 1.42). In the low reactive condition there was less difference (means were respectively 2.09 and 1.59 for the shelter worker and experimenter subjects), F (1, 10) = 4.84, $p < .05$. Finally, there was an interaction

on blameworthiness such that in the high reactive condition, ratings of female blame made by shelter worker-administered subjects (M = 3.17) were greater than those made by experimenter-administered subjects (M = 1.67). In the low reactive condition there was less difference (means were respectively 1.83 and 1.50 for the shelter worker and experimenter subjects), F (1, 10) = 9.09, $p < .05$.

Overall, the main effects found for low reactive versus high reactive stories, and the interactions between reactivity and method of administration, indicated that it was advisable to include stories from both reactivity categories in the stimulus materials. Although method of administration did not vary in the current study, a randomized presentation of both high and low reactive stories served to randomize and minimize potential variability associated with reactivity. In the initial analysis of the data (i.e., before reactivity categorization), however, no stories were consistently and significantly judged as more likely (probable) than others, and there were no trends that suggested the possiblity of a pure story effect for probability. For this reason, a high probability versus low probability manipulation, as had been originally planned for the study, was not feasible.

Unsolicited attribution technique. This method of measuring attributions without the response foreclosure of a structured questionnaire (see Appendix E for stories and format) was devised by Harvey, Yarkin, Lightner, and Town (1980) and has been utilized in marital research by Holtzworth-Munroe and Jacobson (1985). The technique was developed over a series of four experiments (Harvey et al., 1980) involving 246 male and female college students. Subjects viewed videotapes depicting the interaction of a male and female

in a dating relationship or the interaction of two female friends, and afterwards listed their thoughts and feelings. The resulting written material was coded by two trained raters for both number and type of attributions present. Interrater reliability ranged from .87 to .96. In two of the experiments subjects were also instructed to code their own thoughts and feelings as attributions. These subject ratings correlated highly (.94 and .99) with those made by the raters. In all experiments, coded attributions for each subject were converted to an index of attributional activity, computed by dividing the number of attributions by that subject's total number of thoughts. This adjusted for varying lengths of responses. The results indicated that attributions occurred with index mean numbers per videotape procedure ranging from .32 to .92 over conditions. This means that about one-third of the responses to a videotape were attributions when an experimental set calculated to reduce attributions was employed, and almost all responses were attributions when conditions were devised to enhance attributional activity.

Experimental manipulations (Harvey et al., 1980) were of a set for empathy (instructions to imagine they were close friends of the actors and to try to feel as the actors did during the episode), a set for memory (instructions to remember everything they saw and heard as well as they could), a set for future interaction with one of the actors, and a set for involvement with the actors (subjects were told one of the actors had severe emotional problems). Subjects provided with these sets produced a higher frequency of attributional activity than those who were given no sets. Manipulation of the seriousness of outcome of the videotape vignette also increased attributions. With the exception

of the condition where subjects were given a ready internal attribution for one of the actors, the type of attribution did not significantly vary across conditions.

This technique was extended by Holtzworth-Munroe and Jacobson (1985) to a group of 20 nondistressed and 21 distressed marital couples. Couples were asked to imagine a specific set of partner-initiated behaviors and to note their thoughts and feelings. Results showed a range of .24 to .49 mean attributions (averaged over number of behaviors but not indexed for response length) per spouse behavior, with generally higher attributional activity for partners in distressed relationships.

Based on these studies the unsolicited technique appears to be a viable method of sampling relatively freely-occurring interpretive attributional activity in relationships. For the purposes of this technique, subjects participating in the current research were presented with four written battering vignettes and were instructed as follows:

> As you read these stories, imagine that the events are occurring with you in the role of the female partner, and try to feel as you think she would in this situation. Try to imagine the events exactly as they are described. Please remember your thoughts and feelings as you imagine the details of the story. List them below on the lines provided. Place one complete thought or feeling (a sentence or phrase) on each line. You do not have to fill in all the lines.

These instructions capitalized on the effects of empathy and memory sets obtained by Harvey et al. (1980). All subjects received the same four pretested standard incidents presented in random order.

The lists of thoughts and feelings resulting from the measure were coded by two doctoral level clinical psychologists blind to subject group (Appendix F contains the coding criteria). Training of the coders was limited to a one hour session outlining the definition of an attribution and the theoretical rationale extending from attributions of causality to those of responsibility and of blame. The definition of an attribution was that of Harvey et al. (1980): "the coding criteria for what constituted an attribution were phrases and clauses denoting or connoting dispositional attributes of the stimulus persons (e.g., 'He is very arrogant', 'I think that she was insincere'), causal relations for specific effects occurring in the episode (e.g., 'He made her insecure by saying that he stayed overnight with his date'), or more general effects (e.g., 'She blew up these incidents because she wanted to end the relationship anyway')" (p. 555).

Coders were not given detailed, specific instructions and examples about how to classify the data because the central purpose of the unsolicited measure was to demonstrate the presence of attributions in the spontaneous thinking of subjects. Excessive calibration and specification by the experimenter could have altered the likelihood that attributions would be "discovered," thereby producing biased results.

Coders were instructed to follow a decision-tree. They began by classifying responses into attributions and nonattributions. They then coded each attribution as to focus on the male partner, the female partner, or the situation. Each male or female attribution was in turn categorized as characterological or behavioral. After classifying attributions for all four stories, coders were asked to make global

ratings, on 7-point scales, of the blame attributed to the male partner and of the blame attributed to the female partner by each subject.

Structured attribution questionnaire. In contrast to the technique described above, this questionnaire employed a structured-response format to collect attributions to a subset of the pretested vignettes (see Appendix G for the questionnaire). The questionnaire was directly patterned after Shaver's (1985) analysis of blame attribution.

All women participating in the research were asked to respond to identical measures of the levels of blame attribution. Subjects were instructed to imagine themselves in the role of the female partner in two vignettes of abusive episodes that were a randomly selected subset of the four incidents utilized in the unsolicited technique. The use of the same episodes across methods of collecting attributions enhanced the comparability of data from the measures, enabling data obtained in unsolicited responses to substantiate the authenticity and relevance of attributions resulting from the more structured measure.

After reading each vignette, subjects responded with ratings on 7-point scales to questions about each member of the dyad depicted. Ratings were done separately rather than on bipolar scales because there is no reason to believe that blame to one partner excludes culpability on the other's part, or that different kinds of responsibility and blame may not be attributed to each (Miller & Porter, 1983).

Subjects were given brief definitions of the words cause, responsibility, and blame. Cause was defined as "produced the harm, brought it about, made it happen," responsibility was defined as "could have done otherwise, should have known better, should have had better

control, should have seen what would happen," and blame was defined as "intended, meant at outset for outcome to happen."

Subjects were asked to rate, in the following order, the extent to which each partner caused the event, intended it, was coerced or forced by external or internal considerations, and was aware that the event was morally wrong. Following the ratings of the preconditions of responsibility, subjects were asked to rate a partner's responsibility for the incident. Once degree of responsibility was established, the subject was asked about the partner's blame for the event, and how much the fault was for a characterological aspect and for a behavioral aspect of the person (e.g., "To the extent that you think the female partner is to blame for the violence, how much do you think it is because of: a. A personal characteristic of hers [a part of her personality or something that she really couldn't change]?" and "b. How much do you think it is because of a behavior, something she has done but could change?"). Subjects were also asked to rate whether the partner's involvement in the incident was due to a stable or variable feature (e.g., "How likely do you think it is that she will do this kind of thing in the future?").

Subsequent to ratings of the incremental components of blame attribution for the event itself, each subject rated causality, responsibility, and blame for the continuance of similar events. Causality, responsibility, and blame were chosen as the concepts most likely to reflect changes in attributions brought about by the repetition of an event. An identical set of questions was repeated after the subject read the second vignette. Presentation of questions about the male partner was counterbalanced with those about the female

partner to control for order effects. The order of the vignettes was likewise counterbalanced.

After they had completed questions about the vignettes, women in both abused groups responded to a similar set of questions rating their own experience of domestic violence. Women in the nonabused group were not asked to respond to this set of questions. This measure was to discern if subjects' ratings of their own abuse experiences differed from their ratings of the experiences of others (Costello, 1983).

Locus of interpersonal control. All women were also asked to respond to an interpersonal control scale (Paulhus, 1983) consisting of ten items included on the structured attribution questionnaire. The interpersonal control scale measures an individual's evaluation of his or her control in interpersonal situations, by means of a Likert format. The items are a subfactor of Paulhus' Spheres of Control (SOC) measure, a refinement of the locus of control concept (Rotter, 1966). The SOC divides control expectancies into three spheres: personal efficacy, interpersonal control, and sociopolitical control. By factor analysis, it has been demonstrated that the SOC fits locus of control data points with more accuracy than Rotter's (1966) scale (Paulhus, 1983). It and its subspheres have been sucessfully submitted to tests of convergent and discriminant validity (Paulhus & Christie, 1981).

Familiarity with vignettes. At the end of the structured questionnaire, all subjects were asked to rate the similarity of the vignettes to their own experience, and how frequently an episode very like those described in the questionnaire had happened to them. These questions served as a measure of the degree of familiarity each subject had with the situations described in the vignettes.

Procedure

All subjects participating in the study underwent an identically structured individual interview and questionnaire completion process. Women contacting the experimenter in response to newspaper advertisements were interviewed in a set of experiment rooms at Old Dominion University. Women from the battered women's shelter were informed of the study by shelter workers, then individually contacted for appointments if they agreed to participate. Sheltered subjects were interviewed at the shelter. Meetings were conducted in three parts: an initial interview with the investigator to collect demographic information and to screen for study requirements; a session with a research assistant for administration of the attribution measures; and an exit interview with the investigator for debriefing purposes.

The initial interview consisted of obtaining informed consent for the interview, collecting demographic information, recording responses to the DAS and the CTS, and obtaining informed consent to continue in the research. The employment of a two-part consent procedure was necessary because of the manifold legal implications of family violence, and because it was judged that full disclosure of study purposes before administration of the CTS, a set of explicit inquiries about violent interactions, could unduly affect potential subjects' answers. Both the general procedures and the two consent forms for the research were reviewed by the chairman of the Human Subjects committee in the department of Psychology at William and Mary, the college-wide Institutional Review Board, and by the state Attorney General in charge of William and Mary. The consent forms can be found in Appendix H. All precautions were taken to protect the anonymity of subjects' responses.

The order of questionnaire administration was devised to capitalize on what Gelles (1974) has described as the "funneling" technique, wherein preceding, easy-to-answer questions provide a context facilitating the introduction of more sensitive items. Thus, in the present study, items with less social desirability valence, such as age and employment, preceded questions about marital satisfaction, which in turn preceded specific inquiries about violent behaviors. This method has been used successfully by Dvoskin (1981) and by Gelles (1974) in studies of conjugal violence assessing both self-identified and nonidentified abusive couples.

At the conclusion of the screening interview, women not fitting study criteria were fully debriefed about the purposes of the study and thanked for their participation. Women filling study requirements were informed of the study's focus on abusive relationships, the second consent was obtained, and they were paid before the attribution session to ensure that no bias occurred because of financial involvement. None of the subjects selected refused to participate further.

The attribution session was conducted by a female psychology graduate student who was thoroughly familiar with attribution principles. She was blind to the hypotheses of the study and to the battering history of the interviewee to ensure that data collection was not biased by experimenter expectancy. She read the rationale for the session (see Appendix I for full text), and administered the unsolicited attribution measure followed by the structured attribution measure for each individual subject. The assistant remained available while the subject responded to the questionnaires. She was trained to answer specific questions about questionnaire completion and to identify any

subject distress precipitated by the material. Fortunately, there were no such instances during attribution sessions.

Subjects were debriefed by the investigator immediately after the attribution measures were completed. Their questions were fully answered, and they were informed of the specific purposes and hypotheses of the study. Women in the abused-remaining group were told of community services for battered women, and literature on these services was distributed. Often, this appeared to be the first time these women had considered any alternatives to the abuse, and the investigator later received feedback from some subjects that they had contacted a source of help. Because of the clinical nature of the study, the investigator maintained consultation with a licensed clinical supervisor while it was in progress. All subjects were promised information about the results of the study when it was completed.

Results

The principal purpose of this research was to test two hypotheses measured by responses to the structured attribution questionnaire. Because previous research on abuse has been conducted primarily with women in battered women's shelters, not the population of physically abused women remaining in relationships that was included here, extensive analyses of demographics and other factors important to abuse were undertaken first. This was done to test past findings in the literature with the abused-remaining population, and also to present differences between groups that have bearing on the critical attribution measures. Results from these preliminary analyses will be presented first, and will be followed by tests of the major study hypotheses.

Conflict Tactics Scales

Scores on the CTS were used to differentiate women into nonabused and abused groups, and also constituted the primary measure of physical abuse in subjects' relationships. As detailed above, the CTS contains questions about specific physically violent behaviors that occur in marital arguments, and creates separate totals for the male partner and female partner.

The recommended (Straus, 1979) scoring for the CTS is addition of the frequency categories for behaviors within the physical violence factor and summation across factor items to produce a total physical violence score. This method does not take possible differences in item

severity into account, so severity ratings for each physically violent behavior were obtained during pretesting. Frequency scores for each item were multiplied by a severity weighting. The resulting weighted scores were compared to those computed by the Straus method. Because the two sets of scores correlated perfectly (r = 1.00 for female violence, r = 1.00 for male violence), the simpler Straus method was retained. The perfect correspondence indicates that empirically-derived severity weightings substantiated Straus' own intuitive ordering of items.

The CTS male violence and female violence scores were entered into one-way analyses of variance to detect differences among groups. Because by definition there was no male physical violence in the relationships of nonabused women, this group was not included in the male violence analysis. The mean scores are presented in Table 1.

Insert Table 1 about here

Comparisons between the two abused groups indicated that women who remained in their relationships reported less male violence (M = 7.13) than women from the shelter (M = 24.65), F (1, 34) = 35.92, $p < .001$. An overall significant difference was found for the number of violent actions women admitted to having performed in the past year, F (2, 53) = 5.45, $p < .01$. This analysis was broken down into orthogonal comparisons pitting the nonabused group mean against the averaged means of the abused groups, and contrasting the means of the two abused groups. The violence score for the nonabused women (M = .55) was less than that of the abused groups, t (53) = 3.28, $p < .01$, but the abused

groups did not differ from one another. These results indicate that the male violence experienced by the two abused groups is not equivalent, although the two groups of abused women themselves engage in similar levels of violent behavior.

Abuse-related variables. A group of several variables related to physical abuse will be presented here because of conceptual relevance to CTS scores. The measures were obtained during the initial interview with subjects, and were analyzed with one-way analyses of variance. Not all abuse-related variables were applicable to the nonabused women, but when all three groups were included in an analysis, significant results were further orthogonally contrasted as for CTS analyses. Table 2 illustrates statistics for all abuse-related variables.

Insert Table 2 about here

The only significant variable applicable to all three groups of women was the number of times they reported having left their spouse, F (2, 53) = 55.05, $p < .001$. Nonabused women had left their partners fewer times than women in the abused groups, t (53) = 6.99, $p < .001$, but women in the abused-remaining group had also left less often than women who were in the shelter at the time of the study, t (53) = 7.35, $p < .001$. Apparently, sheltered women had tried before to quit their violent relationships. As indicated earlier, 35% had been in a shelter before.

Of the measures applicable only to abused women, significant group differences were obtained for ratings of the recent severity of male violence, F (1, 34) = 11.33, $p < .01$, and for the number of sources

women had recently contacted for help with the violence, F (1, 34) = 29.99, $p < .001$. Ratings of recent violence were made on scales from 1 ("many less" fights recently) to 7 ("many more"). So, women who remained in their relationships perceived recent violence from their partners as less than it had been in the past, but sheltered women rated it as more. Those who remained had recently contacted fewer sources for help with the violence than those who were sheltered, although the two groups did not significantly differ in number of sources contacted in the past. It appears that sheltered women viewed their partner's violence as increasing and, perhaps, alarming enough to merit outside intervention. The groups of abused women did not report differences, however, in the length of time male violence had been present in their relationships (duration of violence) or in the severity of injuries they had suffered as a result of abuse.

Demographic Measures

Subject characteristics compiled on the demographic questionnaire were analyzed for differences among groups. Depending on the nature of the variable measured, either a one-way analysis of variance or a chi-square analysis was used. When significant, analysis of variance results were further subjected to orthogonal comparisons. The nonabused group was compared to the average of the abused-remaining and sheltered groups, and the abused-remaining group was compared to the sheltered group. Significant chi-squares were further examined with a chi-square for each pair of groups to determine where the differences lay, according to a procedure described by Carmer and Swanson (1973).

Standard demographic variables. The groups significantly differed on several demographic variables. Results are reported in Table 3.

Insert Table 3 about here

The significant differences included female education, F (2, 53) = 17.97, $p < .001$; female net monthly income, F (2, 53) = 6.66, $p < .01$; number of children, F (2, 53) = 5.76, $p < .01$; and male partner education, F (2, 53) = 8.68, $p < .001$. The only significant chi-square analysis was for female work status, $\chi^2(6, N = 56) = 21.79$, $p < .01$.

Orthogonal comparisons between groups revealed that the nonabused group reported more years of education, t (53) = 5.17, $p < .001$, a higher net monthly personal income, t (53) = 3.05, $p < .01$, having fewer children, t (53) = 5.17, $p < .01$, and more years of education for their partners, t (53) = 4.04, $p < .001$ than the two abused groups.

Nonabused women were significantly different from the sheltered women, but not the abused-remaining women, in work status, $\chi^2(3, n = 40) = 20.76$, $p < .001$. Work status contained four categories: never worked; worked in the past; presently working part time; and presently working full time. Visual inspection of cell frequencies suggested that nonabused women more frequently held full time jobs than sheltered women, 16 (76%) of whom had worked in the past but were not working at the time of the study.

When women in the abused-remaining group were contrasted with women in the sheltered group, it was found that they had more years of education, t (53) = 2.70, $p < .05$. Abused-remaining women also differed from sheltered women in work status, $\chi^2(3, N = 36) = 13.82$, $p < .005$. Individual cell frequencies suggested that abused-remaining women were also more likely to work full time than sheltered women.

The groups were not significantly different in female or male partner age, race, and religion. The income earned by the male partner, and his work status (i.e., never worked, worked in the past, currently working part time, currently working full time) were not significantly different across groups. There were also no significant differences among groups for several relationship variables, including composition of marital versus cohabiting relationships, number of former relationships, and length (in years) of current relationships. In summary, there were differences in the women's education, income, children in the home, and work status among groups formed on the basis of physical abuse. There were no differences for several basic variables, and for several aspects of the relationships described.

Objective dependency. For a test of the finding that abused women are physically dependent on their mates (Kalmuss & Straus, 1982), demographic variables were combined to create a dependency sum equivalent to the Kalmuss and Straus index of "objective marital dependency" (p. 280). This index is the sum of dichotomous scores on three items: whether the woman worked, whether she had young (age 5 or less) children, and whether her partner earned 75% or more of the family's combined income. The sum ranged in value from zero, or low dependency, to three, high dependency.

An analysis of variance with dependency as the dependent variable yielded a significant between-groups difference, F (2, 53) = 16.59, $p < .001$. Group means and standard deviations are shown in Table 4.

Insert Table 4 about here

Subsequent orthogonal comparisons indicated that the nonabused group was significantly less dependent than the averaged dependency of the abused groups, t (53) = 4.25, $p < .001$. In turn, the abused-remaining group was significantly less dependent than the sheltered group t (53) = 3.57, $p < .001$. Overall, these findings demonstrate, in agreement with Kalmuss and Straus (1982), that physical (financial) dependency is a problem for women in abusive relationships.

Status incompatibility. Following the definition proposed by Hornung et al. (1981), status incompatibility was examined here in terms of the wife's economic and educational resources relative to those of her husband. A status incompatibility score was constructed by adding income and education for each partner, then subtracting the wife's status score from that of her husband (education, in years, was multiplied by 100 so its weighting would equal that of income). Analysis of variance of the resulting scores produced no significant effects.

Family history of violence. According to Walker (1978, 1983), growing up in a violent family predisposes a woman to entering a violent relationship as an adult. Similarly, it is proposed that violence in a man's early environment leads to his use of violence in his adult relationships (Walker, 1978, 1983). These ideas were evaluated by means of three questions on the demographic questionnaire. All women were asked to rate the violence in their background from 1 (none at all) to 7 (extremely violent). They were told to include violence between parents, between siblings, and from parents to children, in their estimates. A separate rating was requested for their partner's background. For another measure of childhood abuse, women were asked if

they had ever been sexually abused as children. Results from these measures are presented in Table 5.

Insert Table 5 about here

Analysis of ratings of the male partner's family background was significant, F (2, 45) = 8.22, $p < .001$. Degrees of freedom were reduced because eight women (two in the nonabused group, one in the abused-remaining group, and five in the sheltered group) did not know if their partner's family was violent. Comparisons revealed that women in the nonabused group rated less violence in their partner's family of origin (M = 2.72), t (53) = 3.72, $p < .001$, than the average (M = 5.07) of the two groups with abusive relationships. In addition, abused-remaining women rated less physical violence in their partner's family than sheltered women, t (45) = 2.30, $p < .05$. Interestingly, none of the measures of female childhood history of abuse (violence in family of origin, history of sexual abuse) was significant. The male partner's previous experience with violence (as reported by the female partner) was important to his present use of violence, but that of the female was not relevant to her tolerance of an abusive relationship.

Mental health variables. Past investigations (e.g., Carmen, Reiker, & Mills, 1984; Gayford, 1975; Hilberman, 1980) suggest that physically abused women suffer from mental problems, particularly depression, at rates higher than those for nonabused women. Accordingly, subjects for this study were asked if they had ever attempted suicide, had ever obtained the assistance of a mental health professional, or had ever been hospitalized for mental health reasons.

These questions assessed nominal information that was analyzed with chi-square statistics. Table 6 contains the results for these measures.

Insert Table 6 about here

There was a difference for the question about suicide, χ^2 (2, N = 56) = 7.00, $p < .05$. Group comparisons indicated that fewer women in the nonabused group had attempted suicide than women in the sheltered group, χ^2(2, N = 40) = 5.16, $p < .05$. There were no other significant comparisons for this variable. Neither mental health services utilization nor mental health hospitalization produced differences, suggesting that, if battered women are more disturbed than nonabused women, they are not obtaining treatment.

Alcohol. Male alcohol use has been frequently associated with physical abusiveness (e.g., Fitch & Papantonio, 1983; Rosenbaum & O'Leary, 1981; Snyder & Fructman, 1981), but abused women have not been found to drink extensively (Frieze & Knoble, 1980). In order to extend these findings to the present population, women were asked to report average weekly alcohol intake, and weekly frequency of alcohol consumption, for both themselves and their partners. Because the answers to these questions were compiled categorically, chi-square analyses were used. The figures are presented in Table 7.

Insert Table 7 about here

Significant differences included male partner average intake, (4, N = 56) = 22.51, $p < .001$; male frequency, χ^2 (4, N = 56) = 11.76,

$p < .05$; female average intake, $\chi^2(4, N = 56) = 29.27$, $p < .001$; and female frequency, $\chi^2(4, N = 56) = 17.44$, $p < .01$.

Subsequent comparisons indicated signficant differences between the nonabused and abused-remaining groups, $\chi^2(2, N = 36) = 11.28$, $p < .01$, and between the nonabused and sheltered groups, $\chi^2(2, N = 40) = 15.66$, $p < .001$, in terms of the average alcohol intake of their male partners. By visual inspection of cell frequencies, it appears that the mates of women in both abused groups were more often heavy drinkers than those of the nonabused women.

The other male alcohol measure, frequency of usage, yielded group differences between the nonabused and the sheltered women, $\chi^2(2, N = 40) = 10.04$, $p < .01$, and between the abused-remaining and the sheltered women, $\chi^2(2, N = 36) = 8.90$, $p < .05$, but not between the nonabused and abused-remaining women. So, although the mates of women who remain in relationships are heavy drinkers, it seems that they do not drink as frequently as those of the sheltered women. Taken together, however, the results do suggest that male alcohol use, reported by wives, is related to male physical abusiveness.

Comparisons of female alcohol rates resulted in differences among all groups for average weekly consumption. The nonabused group drank less than the abused-remaining group, $\chi^2(2, N = 36) = 8.26$, $p < .05$, but more than the sheltered group, $\chi^2(2, N = 40) = 12.97$, $p < .01$. In turn, abused women who remained drank more than those who were sheltered, $\chi^2(2, N = 36) = 14.95$, $p < .001$.

When the frequency of female drinking was examined, results of group comparisons revealed that nonabused women drank more frequently than sheltered women, $\chi^2(2, N = 40) = 12.38$, $p < .01$, and abused

remaining women drank more frequently than sheltered women, χ^2 (2, N = 36) = 9.97, $p < .01$. There were no frequency differences between the nonabused and abused-remaining groups. It seems clear that, in accordance with past research, abused women who have sought shelter have little alcohol consumption. But this does not seem true for all abused women. Women who were abused and remaining in their relationships drank more than the other groups in this study.

Dyadic Adjustment Scale

The DAS, a measure of relationship satisfaction, was included in this research because Rosenbaum and O'Leary (1981) argued that marital discord is a contextual factor in all physically abusive relationships, and a factor that must be controlled when making comparisons between abused and nonabused women. According to their findings, relationship dissatisfaction is related to the presence of an abusive relationship, but is not directly proportional to the severity of the physical violence that occurs.

The DAS produces a total score and four factor-analytically derived subscales, to make five scores altogether. Each score was entered into a one-way analysis of variance to determine whether there were differences among groups. Means and standard deviations for these analyses can be found in Table 8.

Insert Table 8 about here

Significant differences were found for the total score and for all four factor scales (dyadic consensus, F (2, 53) = 39.15, $p < .001$; dyadic satisfaction, F (2, 53) = 46.68, $p < .001$; dyadic cohesion, F (2,

53) = 28.73, $p < .001$; affectional expression, F (2, 53) = 16.37, $p < .001$; and the total score, F (2, 53) = 58.85, $p < .001$). Subsequent orthogonal comparisons were made between the mean of nonabused group and the averaged means of the abused groups, and between the mean of the abused-remaining group and the mean of the sheltered group. Women in the nonabused group were higher than the abused groups for consensus, (M for the abused groups = 36.21), t (53) = 4.99, $p < .001$; satisfaction, (M for the abused groups = 24.60), t (53) = 6.30, $p < .001$; cohesion, (M for the abused groups = 11.77), t (53) = 4.23, $p < .001$; and affectional expression, (M for the abused groups = 7.54), t (53) = 3.48, $p < .01$. Nonabused women were highest for total dyadic adjustment, (M for the abused groups = 80.10), t (53) = 6.30, $p < .001$.

Comparisons between the two abused groups showed, in turn, that abused women who remained in their relationships were higher than the sheltered group for consensus, t (53) = 6.97, $p < .001$; satisfaction, t (53) = 6.90, $p < .001$; cohesion, t (53) = 6.00, $p < .001$; and for affectional expression, t (53) = 4.29, $p < .001$. They were also higher for total dyadic adjustment, t (53) = 7.96, $p < .001$.

Obviously, the nonabused women had the happiest relationships. What is less obvious is that the scores of abused women remaining in abusive relationships were also within the normal range of marital satisfaction, in keeping with the scores of married people reported by Spanier (1976). The scores of the sheltered women were clearly discordant.

Interpersonal Locus of Control

All women were asked to respond to an individual-difference measure tapping locus of interpersonal control. The scale contained 10

statements concerning beliefs about control and efficacy in interpersonal situations, each rated on a 7-point agree/disagree Likert format. Ratings were combined for a total score. It was anticipated that, because of their victimization in interpersonal relationships, abused women would score lower on this measure than nonabused women.

Total scores for the Paulhus (1983) interpersonal control scale were analyzed by means of a one-way analysis of variance. There were no significant differences among groups.

Unsolicited Attributions

The primary purpose behind the use of the unsolicited attribution measure was to determine if abused women freely made attributions about spousal violence. Subjects were asked to respond with thoughts and feelings to the four preselected vignettes. One story described an incident where a husband hit his wife because a part to their broken stove was missing, another related an incident where a man knocked his wife down for failing to phone when she was out visiting, a third told of a man who hit his wife after being fired from his job, and the final story portrayed a husband who punched his wife because of an unironed shirt. The written material generated by the subjects was coded by two raters according to a scheme that proceeded from broad discriminations such as determining a response, to relatively fine distinctions within categories, such as determining whether a coded attribution was to the male or female partner, and then whether it was behavioral or characterological in nature. The variables produced were: number of responses, number of attributions, number of male attributions, number of female attributions, number of behavioral male attributions, number

of characterological male attributions, number of behavioral female attributions, and number of characterological female attributions.

Preliminary analyses. Using the method employed by Harvey et al. (1980), interrater reliabilities were calculated for each dependent variable. The resulting correlations ranged from .95 for number of responses to .19 for number of situational attributions, with an average r of .66. These correlations are presented in Table 9.

Insert Table 9 about here

Each rater's codings were analyzed with analyses of variance to identify any story effects for the dependent variables. For one (male) rater, there were no significant differences due to story for any dependent measure except characterological male attributions, where there was a significant effect, F (3, 159) = 4.14, $p < .01$. Subsequent comparisons (Tukey's HSD; Roscoe, 1975) indicated that the mean number of characterological male attributions for the story about the phone (M = .73) was higher than the mean of the story about the stove (M = .36), q (4, 220) = 4.63, $p < .01$, and the mean of the story about the job (M = .43), q (4, 220) = 3.75, $p < .05$. For the other (female) rater, there were no significant differences for story on any dependent measure except for behavioral male attributions, where the effect for story was F (3, 159) = 2.96, $p < .05$. Tukey's HSD (Roscoe, 1975) indicated that the mean number of behavioral male attributions for the story about the phone (M = .16) was lower than that of the story about the stove (M = .45), q (4, 220) = 4.46, $p < .05$.

Because the primary variable of interest was the number of attributions present in the data, and because both the story effects and the reliability figures suggested that discriminations at the behavioral/characterological level were not reliably made, only the coding made to the level of categorizing male versus female attributions was included in further analyses. At this level, preliminary analyses justified combining data across raters, and across stories.

Attributional index. An attributional index for each subject was constructed by dividing the number of coded attributions by the number of responses made by that subject, to adjust for the varying numbers of subject responses (Harvey et al., 1980). Table 10 contains the attributional indices.

Insert Table 10 about here

The indices ranged from a mean of .50 for the sheltered group to a mean of .40 for the abused-remaining group, with a grand mean index of attributions of .45. There were no significant differences among groups. These figures suggest that subjects do indeed make relatively spontaneous attributions about spouse abuse.

Attributional indices were computed separately for the male and female partners in the vignettes. When these indices for male versus female attributions were contrasted in an analysis of variance, attributions to the male partner in the vignettes were made at a significantly higher rate than those to the female partner, t (53) = 9.18, $p < .001$.

There were no significant differences among groups for the male index, but groups differed significantly on the female index, F (2, 53) = 3.16, $p < .05$. None of the preplanned orthogonal comparisons were significant, because they did not directly contrast the nonabused and sheltered groups, where the greatest difference lay. Tukey's HSD (Roscoe, 1975) yielded q (3, 56) = 3.47, $p < .05$, with the sheltered group (M = .11) coded as significantly lower in female attributions than the nonabused group (M = .28). Apparently, the sheltered group did not give responses focused on the female partner in the violent incidents as often as the nonabused group did.

Blame. Coders were also instructed to rate, on 7-point scales, the amount of blame each subject ascribed to the male partner in the vignette, and, separately, the amount of blame ascribed to the female partner. Although the unsolicited measure did not constitute a test of the study hypothesis that abused-remaining women would find a female victim of abuse more blameworthy than other women would find her, ratings were done to investigate this idea in the unstructured format. The interrater reliability between the two raters was .63 for judgments about the subjects' perceptions of the female partner, and .42 for judgments about the subjects' perceptions of the male partner.

The ratings were entered into an analysis of variance, with group as a between-subjects variable, and with sex of the partner and rater as within-subjects variables. The results are shown in Table 11.

Insert Table 11 about here

There was a main effect for partner such that overall, raters judged subjects as assigning more blame to the male partner, F (1, 53) = 155.08, $p < .001$. Mean blame attributed to the male was 5.69 on a 7 point scale with 1 representing "not at all to blame" and 7 representing "completely to blame". Mean blame attributed to the female was 2.46 on an identical 7-point scale.

There was also an interaction between group and partner such that of all the groups, the nonabused group was rated as blaming the male partner the least, and the female partner the most, while the sheltered group blamed the male partner the most and the female partner the least, F (2, 53) = 7.94, $p < .001$.

In addition, there was a main effect for rater such that more overall blame was rated by the female rater than the male, F (1, 53) = 11.58, $p < .001$. There was also an interaction between rater and partner, F (1, 53) = 33.57, $p < .001$. The female rater consistently judged more blame ascribed to the female partner than the male rater did.

So, it seems that all groups found the male partner more blameworthy than the female, and, contrary to the hypothesis, the most female blame was attributed by nonabused women. This is complicated by the fact that the raters themselves differed in their judgments of blame.

Structured Attribution Questionnaire

This questionnaire was constructed to test the main hypotheses of the study. It consisted of two randomly selected vignettes (a subset of the four used for the unsolicited measure), each followed by questions about how much the male and female partners separately were causal, responsible, and blameworthy for the abusive incident. Subjects were

also asked to make these judgments for the case where such incidents continued to happen in the relationship. Responses were in the form of ratings on 7-point scales, with "1" representing "not at all" and "7" representing "totally". The hypotheses were, briefly, that women who were abused but remaining in their relationships would attribute more blame to the female partner than women in other groups, and that abused-remaining women would attribute the most female blame for a continuing battering relationship. The dependent variables pertinent to these hypotheses were female blame, male blame, female blame for continuance and male blame for continuance.

Preliminary analyses. Before the hypotheses were tested, analyses of variance were conducted to discern if the stories identified as reactive and nonreactive in the pretest had generated any effects on the dependent measures. No significant differences due to the reactiveness of the vignettes were found, so the dependent measures were collapsed across stories. The data were also analyzed for effects due to order of presentation for male and female questions, and again there were no significant effects.

Covariates. Several covariates were identified in the design of the study to control statistically for potential confounds. These were marital adjustment (DAS total score), male violence (CTS male score), duration of violence in months, and recent severity of violence. Several variables from the demographic data that were found to discriminate between groups were also considered as potential covariates. Table 12 presents the Pearson correlations of potential covariates with the dependent measures.

Insert Table 12 about here

If a measure correlated significantly with one or more of the dependent variables, it was selected as a covariate. For all groups taken together, female violence was the only significantly ($p < .05$) related variable. Because of theoretical reasons, however, marital adjustment and male violence were also included as covariates.

When only the abused groups were examined, however, several measures were significantly related to the dependent variables. The correlations are shown in Table 13.

Insert Table 13 about here

As predicted in the study design, marital adjustment, male violence, duration of violence, and severity of violence were relevant. In addition, female violence and female education qualified as covariates.

Blame to the female. The first hypothesis predicted that there would be a main effect such that abused-remaining women would be highest in blame to the female. The second predicted that there would be a main effect such that abused-remaining women would be highest in blame to the female for continuing violence.

Both hypotheses were tested by means of a multivariate analysis of variance with group (nonabused, abused-remaining, and sheltered) as the independent variable and with the dependent variables of male and female blame, and of male and female blame for continuing violence. No

significant differences were found. The covariates of female violence and dyadic adjustment were added, both singly and together, and again no significant differences were noted. The hypotheses were not confirmed.

Data for the abused groups only (abused-remaining and sheltered) were analyzed in an additional multivariate analysis of variance that included ratings of self-blame for the violence experienced in their relationships. The results are presented in Table 14.

Insert Table 14 about here

There was a significant group effect, F (5, 30) = 3.18, $p < .05$. Univariate analyses indicated that the only dependent measure with significant differences for group membership was self-blame with the abused-remaining group attributing more self-blame than the sheltered group, F (1, 34) = 8.87, $p < .01$. None of the covariates amplified the effect. The addition of marital adjustment, male violence, duration of violence, and recent severity of violence, both singly and together, extinguished it. Although there were significant differences in self-blame for the groups that had experienced relationship violence, these differences were accounted for by variables describing the male violence and the amount of marital satisfaction in the relationship. Table 15 charts the relationships among these covariates.

Insert Table 15 about here

Correlation between the important covariates ranged from r (36) = .15 to r (36) = -.70. There was a significant positive relationship

between male violence and recent severity of violence in the relationship (r (36) = .51, p < .001). This correlation indicates that men who were reported as engaging in more violent behaviors were also perceived as increasing in their violent behavior over the recent past.

There were significant negative correlations between total dyadic adjustment and male violence (r (36) = -.70, p < .001), recent severity of violence (r (36) = -.35, p < .05), and duration of violence (r (36) = -.37, p < .05). The abused women reporting higher marital satisfaction, therefore, also reported their mates as committing fewer violent actions, as decreasing in violent behavior, and as having been violent for a shorter amount of time.

The relationships between abused groups' evaluations of women depicted in the vignettes and their evaluations of themselves were examined by means of Pearson correlations. Table 16 illustrates these relationships.

Insert Table 16 about here

In terms of attributions of cause for relationship violence, the evaluation of pictured women and the evaluation of themselves correlated moderately for both groups (r (16) = .48 and r (20) = .48 for abused-remaining and sheltered groups respectively). These correlations were contrasted for the significance of the difference between them, according to a procedure described by Edwards (1962). There was no significant difference. This indicates that each group judged that the degree to which women in the vignettes caused the violence was somewhat similar to the degree to which they themselves caused the violence in

their own relationships. Also, there was no difference in relatedness of self and other judgments between groups.

When the judgment is of responsibility for the violence, the correlations diverge. For the abused-remaining group, the evaluation of women in vignettes continues to be moderately and significantly related to the evaluation of themselves (r (16) = .46, $p < .05$). For sheltered women, however, the evaluation of another woman is not at all related to the evaluation of self-responsibility (r (20) = .01). This finding must be qualified, however, by results from the Edwards (1962) procedure indicating that the correlations are not significantly different. Thus, it cannot be concluded that the two groups are engaged in different types of judgments with regard to responsibility.

Finally, when the judgment is of blame for the violence, abused-remaining women continue view themselves and others in a like fashion (r (16) = .76, $p < .001$), but for sheltered women the judgments are different (r (20) = .13). Results from the contrast of the correlations (Edwards, 1962) yielded a significant difference between them, $z = 2.29$, $p < .05$. Apparently, each group employed a different process in arriving at a judgment of blame. The abused-remaining women judged others as they judged themselves, the sheltered women did not.

The point to be made here is that in the planning of this study, it was assumed that subjects would make attributions about women pictured in vignettes that reflected how they made attributions about themselves. In light of the above results, this assumption is questionable, particularly for women recruited from shelters.

Blame to the female for continuance. There were no significant differences among groups for blame to a woman for continuing violence

in her relationship. But across all groups, more blame was attributed to a female victim of abuse when there were repetitive violent incidents rather than a single violent event. Specifically, blame for one abusive event was at an average of 3.16 when collapsed across groups, but blame for continuing violence averaged was 4.63, F (1, 53) = 10.73, $p < .001$. The absolute level of blame attributed to the female in either case was low. The means represent ratings combined from two 7-point scales, where the highest possible blame could total 14 points.

Male versus female blame. When ratings of blame were collapsed across groups, there were highly significant differences due to sex of the person rated. For a single battering incident, the male partner was assigned much more blame than the female (means were respectively 12.96 and 3.16 for the male and female conditions), F (1, 53) = 11.54, $p < .001$. For continuing incidents, males were assigned somewhat less blame and females more, but the difference remained significant, F (1, 53) = 110.68, $p < .001$ (means were respectively 12.25 and 4.63 for the male and female conditions). There seems to be no question for the respondents but that the male partner is culpable for his violent behavior, and that his spouse is blameworthy only to a much lesser magnitude.

Intercorrelations of the attribution process. As may be recalled from the rationale for this research, the point was made that attributions of causality differ from those of blameworthiness, and that there are several distinct decisions involved in the process of attributing blame (Shaver & Drown, 1986). Accordingly, many factors hypothesized as relevant to the judgment of blame (Shaver, 1985) were assessed via the structured attribution questionnaire. These factors

(subjects' evaluations of vignette characters in terms of cause, intent, choicefulness of behavior, responsibility, ability to judge right and wrong, prescence of a viable excuse, and blameworthiness), were intercorrelated to determine their relationships to one another. Table 17 contains the results.

Insert Table 17 about here

Judgments of the amount of causality, intentionality, and responsiblity alotted to the female partner in a battering incident were significantly related to the blame assigned (r's range from .57 to .66, $p < .001$ in all cases). It should be noted, however, that these correlations were only moderate despite their significance. Although related, these are different concepts.

On the other hand, evaluations of the degree of choice the woman had, her ability to judge the wrongfulness of her actions and the availability of an excuse for what she did, were not significantly related to the attribution of blame. These "mitigating" elements were significantly related to one another (r's range from .38 to .47, p's range from $< .05$ to $< .001$). The relationships among elements are fairly congruent with those proposed in Shaver's (1985) model.

Discussion

The results of the study do not confirm the hypothesis that self-blame for a partner's violent behavior is associated with remaining in an abusive relationship. Although there was a difference in self-blame found between women who had stayed and women who had left battering relationships, the effect was accounted for by other strong differences between the two abused groups. Accordingly, this discussion will concentrate first upon the ways in which the studied groups differed before proceeding to an explication of the major study hypotheses. It is hoped that this will provide the reader with a comprehensive basis for evaluating the major results.

A very important way in which the groups differed was in the level of partner violence they had suffered. This difference must be taken in the context of the extremely high occurrence of physical violence for all women screened in this study, when compared to that found in previous research (e.g., Gelles, 1974; Straus, Gelles, & Steinmetz, 1980). Of women responding to the request to participate in research about relationships, 74% reported at least one episode of male-perpetrated violence such as pushing, grabbing, or hitting in their adult life, and several women recounted severe injuries. Twenty-one percent of the women interviewed had experienced two or more abusive incidents in the past year. It must be noted, however, that for most of the research on spouse abuse, including the present study, the highest

rates were recorded for the less severe physical acts of violence such as pushing and shoving, or throwing objects at a partner.

Still, the qualification that most of the physical abuse suffered was fairly mild in nature does not explain the relatively high level of any abuse found for this study in relation to others. The explanation may lie in differing definitions of violence, differing definitions of "relationship," or differing assessment techniques used across studies. As noted above, information about violence obtained from the CTS produces a higher rate of abuse when personal, private, interviews are employed. Such was the case in the present research. Women were interviewed by a trained clinician using a format and an approach carefully devised to maximize honest self-report. Under these circumstances, women were repeatedly assured of the confidentiality of their replies, evasive answers could be further probed, and the importance of honesty could be stressed and explained. If results from private personal interviews are considered more veridical than those obtained in massive telephone surveys, about one-quarter of women in intimate relationships experience some form of physical violence from their male partners during a year. As many as three-quarters of all women contend that a physically violent act (however mild) was committed by their lovers or husbands during the history of their intimate relationships.

The women in relationships who reported repeated current physical abuse during the screening interview received a mean CTS score (7.13) above the 95th percentile in husband-wife violence according to norms derived from the Straus et al. (1980) national survey. The women in the shelter ranked even higher, with a mean partner violence score

(24.65) falling above the 99th percentile. These norms were derived from a telephone rather than an interview assessment, and Straus himself (1978; Straus et al., 1980) suggested that they might represent an underreport of violence, given social pressures against reporting and the fearful, isolating nature of abuse. The abused women assessed here would probably be less extreme if comparison to the true prevalence of violence in American relationships were possible.

Nevertheless, the average for the abused women from the community represents at least seven incidents of violence a year, a frequency of every other month (CTS scores do not represent exact frequencies of incidents, because frequencies greater than two are grouped in a series of categories). The mean for the sheltered women represents at least 24 incidents per year, a frequency of every other week. Certainly, both groups had suffered repetitive abuse, but just as certainly, there was a far greater amount of abuse reported in sheltered women's relationships.

Can these self-reports be trusted? It would be highly problematic to validate the CTS against observed violent behavior. Instead, attempts have been made to validate the scale by comparing husband and wife reports of violent behaviors against one another. The results are consistent in that there seems to be only low to moderate agreement between husbands and wives asked to indicate the frequency of specific violent behaviors, but the studies disagree on where the biases lie. From a community sample, Szinovacz (1983) concluded that wives report more violence on the part of their husbands than husbands do themselves, but wives also report more violence on their own part than their husbands attribute to them. The interspousal reliability of responses to the CTS in both community couples and couples beginning marital

therapy was examined by Jouriles and O'Leary (1985). They found systematic bias in the clinical population but not for the community sample. Husbands from couples beginning therapy underreported their own violence and/or wives overreported husbands' violence.

It is impossible to determine if the women interviewed for the present research accurately described the violence in their relationships. The results discussed above would suggest they "overreport" violence for both themselves and their mates (at least from the male partner's point of view). For community women there may not be any bias operating differentially to produce higher scores for one partner versus the other, although it is possible that the self-selection inherent in volunteering operated to produce a group of women who were seeking some sort of information about their relationships. The sheltered women, on the other hand, were seeking to change their relationships and may be similar to therapy subjects, possibly inflating the difficulties they've suffered from their spouses.

Did the women fight back? All groups studied responded that there was violence on their own part. The abused groups did not significantly differ in violence reported for themselves, but even the nonabused women admitted to some (low level) female violence in relationships where their partners were not physically violent. There is some evidence compiled from projective testing (Dalton & Kantner, 1983) to suggest that battered women are more liable to acting out and aggression than those who have not been abused. Informal questions asked during the debriefing interview of the present study, however, suggested that male partners more often committed the initial violent act in a relationship, and thereafter it was the males who were more likely to initiate

physical violence when an argument occurred. These observations, although confirming the women's own perceptions that they were victimized, must be regarded with caution because they were not reliably gathered.

The abused women studied here experienced different levels of partner-inflicted physical abuse, according to their residence in the community or in the shelter. They did not differ in the length of time physical abuse had been present in the relationship or in the severity of physical injury they had suffered as a result. The sheltered women, however, perceived the abuse as on the uprise in the recent past, as opposed to the view of women still in relationships that the abuse had decreased slightly. It may be that these ratings are distorted, given a possible need on the part of sheltered women to justify their leaving, and, vice-versa, a need on the part of community women to justify their staying. Nevertheless, the findings suggest that sheltered women were suffering many incidents of abuse, which had been increasing in frequency, while community women were experiencing less abuse, which had declined somewhat in the near past.

The assumption was made in this research that the sheltered women, as opposed to those remaining in relationships, were interested in change. This assumption is supported by the finding that sheltered women had recently contacted significantly more sources for help at the time of the study than the abused women remaining in relationships, although the two groups did not differ in sources contacted in the past. Sheltered women also rated the future of their relationship considerably more pessimistically than did the abused-remaining women.

The groups also differed on several basic socioeconomic indicators. The control, or nonabused group of women, was intended to provide a baseline of how women who had never experienced abuse viewed its participants. But as a group, these women also proved to be significantly better-educated, to have more educated partners, to be more often employed, and to have a higher income than women who were abused. These findings are consistent with previous investigations of spouse abuse that compared women in abusive relationships with those who were not (Dvoskin, 1981; Gelles, 1974; Straus et al., 1980).

Lower socioeconomic resources were most pronounced for the sheltered women. It can certainly be argued that the use of sheltered women for a sample of abused women who had left their relationships resulted in a group biased toward lower socioeconomic status. By definition, those women who come to the shelter are those who have no immediate family and financial resources to turn to.

The concept of "objective dependency", developed by Kalmuss and Straus (1982), serves to consolidate some of the economic measures. Nonabused women qualified as most independent, and sheltered women scored as most dependent, with abused-remaining women falling in the middle. Objective dependency, according to Kalmuss and Straus, is based on the woman's lack of ability to financially support herself, and takes into account childcare needs (presence of preschool children), lack of a job, and contribution of a quarter or less of the family income. It is posited as a factor that keeps a woman in a relationship once it is violent. Rather than describing a woman who has sufficient, or even high personal resources, the dependency concept presents a view of abused women as unable to survive economically outside of the abusive

relationship, and therefore, perhaps, willing to tolerate spousal violence.

This latter view is supported by the present research, although it should be noted that the women who remained in abusive relationships averaged only .81 on the Kalmuss and Straus index (having less than one of the financial constraints above), but women seeking to leave their relationships with the help of the shelter were on the average twice as dependent. It should not be forgotten, however, that sheltered women have, to some extent been pre-selected for lack of such resources through shelter admission policies. Women remaining in abusive relationships were also significantly more educated and more likely to be working full time than sheltered women. There are, apparently, other variables involved in explaining why women are staying in violent relationships.

One such alternative is presented by the construct of status incompatibility (Hornung et al., 1981). This idea, that relationships are abusive because the female partners possess greater educational and economic resources than their mates, was not supported by the data, although there was a tendency for there to be less of a status differential in the relationships of sheltered women. Again, sheltered women are by definition those with few resources, and the trend noted here may be influenced by a "floor" effect, reflecting, for example, the fact that many sheltered women were collecting Aid to Dependent Children (a minimal income) and their partners were working sporadically as laborers, earning even less. The notion of status incompatibility fails to deal with absolute economic and educational levels, and is thus confounded. For example, if there had been a finding that there was

more abuse in status incompatible relationships, it may simply have been because men with low socioeconomic status were more violent, rather than violence as a product of relative status in the relationship. With this qualification in mind, it must also be noted that the measure of status incompatibility employed here was relatively crude compared to those used in other studies (Allen & Straus, 1980; Hornung et. al., 1981), and for this reason may have failed to detect crucial differences in status within abusive couples. A final possibility is that the construct of status incompatibility as an important, perhaps initiating, factor in domestic violence holds only for a selected subset of abusive couples, rather than all of them.

Women in all groups, abused or nonabused, were not significantly dissimilar on measures of their childhood exposure to victimization (experience of sexual abuse and exposure to physical violence in their family of origin). But women's estimates of their partners' childhood exposure to violence were significantly higher for relationships where abuse was present. These results suggest, in agreement with some previous work (Coleman et al., 1980; Fagan et al., 1983; Fitch & Papantonio, 1983; Rosenbaum & O'Leary, 1981; Star, 1978), that it is the male partner's background that is most important in abusive relationships. This is contrary to Walker's (1978, 1983) assertion that battered women learn acceptance of abuse and victimization as children. Both Gelles (1976) and Straus et al. (1980) present data to support her point of view, but Gelles fails to give the analyses and significance levels he employed to reach this conclusion. Results from the Straus et al. (1980) survey may be suspect because of the methodology used, which may have led to bias in subject self-report. An alternative solution to

these contradictory findings may be derived from Snyder and Fructman's (1981) construction of typologies of battered women. Their work indicates that a subset, but not all, of abused women can be distinguished by an extensive history of violence witnessed or experienced in childhood. Certainly, data obtained here can be interpreted to support the notion that abusive men learn about the use of violence in interpersonal relationships from their families, but abused women do not necessarily do so, and may be more heterogenous in their backgrounds. And this places a greater burden upon the male as the carrier of abuse into his adult relationships.

But there were also differences when only the abused groups' reports are examined. Subject to possible reporting bias, the partners of sheltered women, credited as more violent than the partners of abused-remaining women, were additionally presented as coming from more violent backgrounds. This consistency strengthens the evidence that violent males are indoctrinated into violent behavior by their family of origin.

Women do not appear to be the carriers of abuse into relationships, but, according to previous research (Carmen et al., 1984; Gayford, 1975; Hilberman, 1980; Mitchell & Hodson, 1983), they suffer its effects in the form of psychiatric problems, depression, and suicide. None of the above studies, however, compared victims of abuse to a nonpsychiatric control group. In the present sample, women who were both abused and in the shelter more frequently reported attempting suicide in the past than did women who had never been abused.

This finding could be interpreted in several ways, for it is not known if the suicide attempts were precipitated by the abuse, if a

predilection to depression and suicidality predisposes the selection of an abusive mate, or if a third underlying factor is responsibile. Otherwise, abused and nonabused women were alike in their histories of mental health treatment and hospitalization.

Alcohol usage is also considered here as reflective of mental problems and problematic adjustment to life. It has been consistently associated with the domestic violence perpetrated by males (Coleman et al., 1980; Fagan et al., 1983; Fitch & Papantonio, 1983; Hanks & Rosenbaum, 1977; Powers & Kutash, 1982; Rosenbaum & O'Leary, 1981; Snyder & Fructman, 1981). Present results are consistent with this literature, indicating that alcohol use was considerably higher among partners of abused women.

When alcohol usage of the female partner is considered, a different pattern emerges. The highest usage is reported by women who were abused and remaining in their relationships, the lowest by women who were sheltered. Previous research has noted that abused women have low frequencies of alcohol use (Frieze & Knoble, 1980), but this study assessed women in shelters. The greatest usage found here was in women who were abused but not sheltered. These women in abusive relationships may be drinking to maintain themselves in a stressful situation, or, perhaps, their own alcohol usage contributes to the violence. Because sheltered women are also abused, but do not drink heavily, the former suggestion seems most probable. Another variable impinging on this finding is that the drinking habits of sheltered women may have been influenced by the shelter's prohibition of alcohol on the premises.

Results reported by Rosenbaum and O'Leary (1981) indicated that physically abused women answer in the highly dysfunctional range on a

test of marital adjustment. Of women assessed in the present research, nonabused women (screened for physical violence but not for marital discord) reported significantly higher marital satisfaction on the Dyadic Adjustment Scale (Spanier, 1976) than women in the abused groups. By far the lowest scores for marital satisfaction were obtained by sheltered women.

What is surprising is that marital discord for abused women remaining in their relationships is far from severe. Other studies utilizing the DAS to measure the concommitants of marital distress have used a score of less than 100 as defining distress (Holtzworth-Munroe & Jacobson, 1984; Jacobson, McDonald, Follete, & Berley, 1985). By this criterion, the abused-remaining group, who scored 104.75, qualifies as nondistressed. Rosenbaum and O'Leary (1981) concluded that marital dissatisfaction provides a necessary setting for abuse, but they failed to assess women who were abused but not seeking change (therapy) for their relationships. The women who were not seeking help interviewed here presented a picture of relationships where physical abuse was present, but, somewhat paradoxically, marital discord was not severe. It therefore seems possible that marital discord is not an essential contextual factor in spouse abuse. Perhaps physical abuse is not recognized by these women as a source or symptom of discord.

The groups of women, constructed on the basis of presence or absence of abuse and remaining in an abusive relationship, were similar in their self-ratings of interpersonal control on the Paulhus (1983) Interpersonal Control scale. The grand mean of 49.7 for the 10-item scale signifies an average score per item of about five, above midpoint agreement with statements endorsing interpersonal efficacy. As reported

by Paulhus (1983), the scale correlates moderately with Machiavellianism (Mach V scale, Christie & Geis, 1970), moderately with the Rotter (1966) I-E scale (r = -.28), moderately with interviewer-rated assertiveness (r = .27), and slightly with socially desirable responsiveness (r = .11) as measured by the Marlowe-Crowne (Crowne & Marlowe, 1964).

The lack of differences between abused and nonabused groups, and the relatively high reported level of interpersonal control, are surprising in light of the prevalence of Walker's (1978, 1979) learned helplessness theory of battered women, which predicts a lack of interpersonal efficacy in this population. The results are not surprising, however, given Walker's own (1983) finding that battered women score significantly higher than norms for the Levenson (1972) IPC Locus of Control subscales. In a related fashion, Rosenbaum and O'Leary (1981), and Costello (1983) reported that abused women were significantly more liberal in their attitudes about traditional sex roles than women in nonabusive relationships.

The only data discrepant with this interesting portayal of battered women as assertive, possessing a sense of control and efficacy, and liberal in assessments of their sex roles are data (Rosenbaum & O'Leary, 1981) that abused women seen individually for therapy were less assertive than nonabused community women. In this same study, however, abused women seen with their husbands were not less assertive than nonabused women, and it would seem that, in this case, nonassertiveness/assertiveness functions independently as a variable defining the two groups rather than a legitimate dependent measure. In other words, the nonassertiveness finding seems to hold only for a group of abused women selected on the basis of nonassertiveness.

Unless the interpersonal control scores found here are the product of inaccurate self-reporting (the low correlation of the scale with the Marlowe-Crowne makes this seem unlikely), abused women see themselves as interpersonally effective as nonabused women. It does not appear to be a personality variable, or at least not this personality variable, that distinguishes abused from nonabused women.

In summary, the group of women interviewed here who had never experienced physical abuse from a partner reported more financial and educational resources than women who were currently experiencing abuse. Nonabused women were less financially dependent upon their partners and were more satisfied with their relationships. Their mates came from less violent family backgrounds than those of abused women, and nonabused women themselves used physical violence less often than those in abusive relationships. They had a history of fewer suicide attempts than sheltered women, although they had used mental health services as often. Nonabused women used alcohol to a lesser degree than abused women in the community, and their partners used alcohol to a lesser degree than abusive partners. Thus, for this sample, the prescence of abuse in a relationship is associated with lower financial and educational achievements on the part of the woman, and higher economic dependency upon mates. Abusive relationships are characterized by less marital/relationship satisfaction and by partners from violent families who use alcohol heavily. Abused women had more often attempted suicide (sheltered group only) and more often used physical violence in their relationships (both abused groups).

But there were differences as well between women remaining in abusive relationships and those who have sought shelter. Women who

remained were more educated, more likely to be employed and were less economically dependent upon their partners. These findings are probably biased by the selection of sheltered women, who represent only a small and economically disadvantaged subset of abused women who have left their partners, as a comparison group. They also call into question the generalizability of previous research, much of which has been done with sheltered women, to the population of all women who are abused (e.g., Dalton & Kanter, 1983; Hilberman & Munson, 1978; Mitchell & Hodson, 1983; Miller & Porter, 1983; Snyder & Fructman, 1981; Star, 1978). As summarized below, strong differences between the two groups of abused women make it dubious that qualities found for one group will be equally applicable to the other.

Abused women who remained in relationships reported relationship satisfaction within the "nondistressed" range, and they had left their partners less often than sheltered women. Their partners were from less violent backgrounds, used less alcohol and were less violent in the relationship at the time of the study than the mates of sheltered women. Abused-remaining women perceived the abuse in their relationships as less frequent than that in the past, but sheltered women perceived it as more frequent. Women who remained used more alcohol than sheltered women, and both groups reported similar levels of their own violence in relationships. Remaining in an abusive relationship versus seeking shelter was thus associated here with higher financial and educational achievement, and with less economic dependency upon partners. The intact relationships were characterized by less overall marital discord and less violence, perpetrated by partners who came from less violent family backgrounds and who used alcohol less heavily.

The strength of these differences brings up the question of how comparable the two groups really are. The process of recruiting subjects via the newspaper and requiring them to come to a university for research purposes almost certainly selected against women who were under the watchful eye of a jealous husband. Severe abuse has been found to be very isolating (Mitchell & Hodson, 1983). Therefore, the community sample of abused women interviewed here, who came to the research because of "curiousity" or "money" (these were the two most frequently cited reasons for coming) may have been a sample biased toward less abuse. On the other hand, sheltered women were women who had come to the shelter in emergencies, who talked of being frightened for their lives. For the most part, this was a sample biased toward extreme violence. The possibility that the two groups of abused women were self-selected and divergent subgroups of the population of abused women as a whole must be kept in mind as the results of the attribution measures are discussed.

Across all groups (nonabused, abused-remaining, and sheltered), free response to the battering vignettes for attribution yielded an average of .45 attributions present per response, when coded for attributions. This figure is very consistent with Harvey et al. (1980), who reported attributional indices ranging from .32 to .57 for instructional sets similar to those used here. The attributional indices presented by Holtzworth-Munroe and Jacobsen (1985), who extended the unsolicited technique to married couples, are not directly comparable to the present data because of differing computational procedures. There is consistency, however, in that Holtzworth-Munroe and Jacobsen concluded that spouses do spontaneously engage in

attributional activity for their partners' behaviors. Contrary to Miller and Porter's (1983) contention that battered women may not make attributions for their spouses' behavior, all abused women did make attributions for spousal violence.

The interrater reliability for coding the presence of an attribution was moderate (r = .71). Because of the need to demonstrate that attributions were present in the unsolicited material without the imposition of the investigator's own biases and expectancies, coders were not given extensive investigator instruction and calibration. This decision to keep coding criteria relatively unspecific to prove a central point led to substantially less agreement between raters when careful discriminations were required. The decision to label an attribution as being for the male partner or for the female partner was reliable, but raters were not able to agree on the occurrence of a situational attribution. Likewise, behavioral and characterological distinctions were problematic, and significant differences were found at the level of male behavioral and characterological attributions. The reason for rater difficulties in discerning situational factors and transitory behaviors on the part of participants may be extrapolated from actor/observer research. According to many attribution theorists (e.g., Jones & Nisbett, 1972; Kelley, 1967), observers have a tendency to focus on the stable personality characteristics of actors, and to ignore relevant situational cues. In the present case, raters functioned as observers of the statements made by the women, and as such, may have been subject to this bias.

Analyses of the specific characteristics of attributions, other than those identifying the partner involved, were abandoned. There

simply was not enough reliability in these decisions to give reasonable assurance that coders were measuring similar phenomena. There is no other known published research attempting to code free material into behavioral and/or characterological attributions, but future studies could benefit from careful and concrete specification of these concepts, particularly the qualities defining a behavioral attribution.

Overall, women made more unsolicited attributions to the male partner depicted in the vignette than to the female, but there were no differences in male attributional activity between groups. Because coders were instructed to include both attributions of causality and of blame when counting attributions, these results cannot be interpreted as indicating more ascribed blame to the male. They do, however, indicate a greater attributional focus on the male partner, and, consequently, imply greater effort expended in understanding and/or explaining his actions. The absence of significant group differences suggests that this phenomenon is not influenced by direct personal experience with male partner violence.

On the other hand, women in the sheltered group made fewer attributions to the female partner than nonabused women. Again, this result cannot be equated with the ascription of less blame, but it suggests less attributional focus on the female, and thus less effort in explaining her actions, for women who have left an abusive relationship. Perhaps the heightened attributional process hypothesized to accompany separation in marriage (Harvey et al., 1978) is principally aimed at the spouse. Alternatively, perhaps women who have experienced severe and continued partner abuse no longer identify victim actions as important or influential during abusive episodes. This latter hypothesis is

consistent with Kelley's (1967) theory that repetitive events cause perceivers to attend and attribute to factors that remain constant over events. In this case, the salient constant for sheltered women may be an abusive partner.

From a different perspective, and one more directly relevant to the question of blame, coders' global ratings of the amount of blame women assigned to both partners depicted in the vignettes were significantly different for the nonabused and sheltered groups. Specifically, the sheltered group was rated as assigning more male blame, and as assigning less female blame than women who had never experienced spouse abuse. These findings were complicated by a Rater by Group interaction for male blame and a main effect for rater in judgments of female blame. The female rater consistently perceived women as blaming the female more than the male rater did, and she viewed abused-remaining women as assigning less male blame than the male rater did.

This is an unexpected finding. Both raters held the same degree (Ph.D. in Clinical Psychology) and both were psychotherapists practicing in the same setting. The obvious difference between them is gender, and there is some evidence that males and females judge victims differently (Howard, 1984). Studies utilizing raters to categorize attributions do not consistently report the sex of their raters or analyze for any differences due to this variable. It is quite possible, particularly for topics as sexually loaded as spouse abuse, that gender biases for ratings do exist and should be explored.

With this caveat in mind, it should be noted that raters viewed women from all groups as blaming the male partner more than the female. The finding that sheltered women were coded as blaming women less and

men more than nonabused women is somewhat in opposition to the main hypothesis of this study, and will be discussed further when results from the structured measure are examined.

The first stated hypothesis was that women who were physically abused, but remaining in their relationships, would report significantly more blame to the abuse victim pictured in the structured attribution measure than abused women who had left, and that nonabused women would report the least blame of all. This hypothesis was not verified. There were no significant differences between abused versus nonabused women, nor were there differences between abused women who had stayed in their relationships and those who had left. The data are contrary to much of the clinical observation published about battered women (Ball & Wyman, 1978; Hilberman, 1980; Hilberman & Munson, 1978; Rounsaville, 1978; Walker, 1979) as well as to statements made in the social psychological literature about victims of spouse abuse (Frieze, 1979; Janoff-Bulman & Frieze, 1983).

A close examination of research that has been done on the attributions of battered women (Costello, 1983; Frieze, 1979; Porter, 1983; Shields & Hanneke, 1983) revealed similar findings. Although concluding that abused women blame themselves for their beatings, Frieze published data indicating that both her abused and nonabused samples overwhelmingly attributed causality to the husband pictured in a vignette. The percent of causality ranged from 56% to 81% for the husband over all samples, and from 5% to 20% for the wife. Comparisons between the groups were not reported. Her results were for the attribution of cause rather than blame, and although the two are related, they cannot be held equivalent. In Costello's (1983)

dissertation research, attributions of blame were directly measured, and no differences were found between women living with the abuser and those who had left (both groups were recruited from battered women's services). The author noted that her nonbattered comparison group had a tendency to blame a battered woman more for abuse than the battered women did, and that abused women responded differently to questions about the responsibility of a woman described in a vignette than to questions of their own responsibility. Although they viewed the pictured victim as only minimally responsible, they saw themselves as significantly less so.

This was also the case here. Abused-remaining and sheltered women's ratings of blame to victims in vignettes did not significantly differ, but their ratings of self-blame for their own experienced violence did. Inspection showed that abused-remaining women assigned themselves a low level of self-blame commensurate with their ratings of vignette victims, but sheltered women attributed even less blame to themselves, and their self-ratings were not related to ratings of another victim. Abused-remaining women did not blame themselves or another victim more for abuse than other women, but sheltered women apparently blame themselves less. This result from the structured measure is partially validated by its concordance with judgments of blame rated on the unsolicited measure. In addition, research (Sheilds & Hanneke, 1983) using measures of the internality or externality of causal attributions for experienced rather than depicted violence, battered women recruited from shelters and self-help programs, produced similar results. Women seeking help with abusive relationships did not attribute cause to themselves for the violence they had experienced.

The significant effect dissappears when variables related to the abuse (CTS male violence score, recent frequency of abuse, duration of abuse) and to marital adjustment (total DAS score) are entered as covariates. These variables are significantly interrelated. Other researchers (Miller & Porter, 1983; Frieze, 1979) have suggested that aspects of the violence are highly related to the attributions made for it. Specifically, Frieze (1979) noted that severe violence, leaving the relationship, and attributing causality to the husband were significantly intercorrelated. Citing interviews with battered women, Miller and Porter (1983) stated that "The extremity of their partner's violence was pointed to by many women as a means of exonerating themselves from blame for the violence" (p. 145). They also suggested that as violence continues (i.e., duration increases), a woman may assume less responsibility for causing it. In this sense, the data conform to Kelley's (1967) conceptualization of the causal attribution process. Repeated instances of abuse by the same abuser will lead a woman to attribute to the invariant constant over incidents, namely to the abuser himself.

This theory does not, however, take the extremity of violence into account. It may very likely be that severe, blatantly inappropriate, and extremely violent spousal actions are so salient as to rule out attributions to anyone but the perpetrator. For example, a wife may feel contrite for neglecting to call her husband when she has been late, but she is unlikely (at least intuitively) to feel blameworthy if his reaction is to threaten her with a gun, or to beat her with a living-room lamp. This kind of scenario is quite representative of incidents related by sheltered women.

In the present research, recent frequency of abuse, duration of abuse, and, to some extent, CTS scores, are all rough measures of how much repetition of violence has occurred. More focused measures are needed, however, to closely determine the effects of repetitive victimization on the attributions of battered women, and on the attributions of victims in general. The issue of the effects of extremity, or quality, of the violence perpetrated also deserves adequate conceptualization and measurement.

But there was another factor, marital adjustment, that accounted for the differences in self-blame for experienced abuse found between abused-remaining and sheltered women. Although marital adjustment was highly inversely related (r = -.70) to male violence scores for the present groups of abused women, it is conceptually an entity which exists separately from violence. There is currently a burgeoning body of literature concerned with contrasting the attributions made by maritally adjusted and maladjusted (nondistressed versus distressed) partners (Fincham, 1985a; Fincham, 1985b; Fincham et al., in press; Fincham & O'Leary, 1983; Holtzworth-Munroe & Jacobsen, 1984; Madden & Janoff-Bulman, 1981; Orvis et al., 1976). Certainly, results here that sheltered (and highly maritally-distressed) women engage in less self-blame than abused women in nondistressed relationships are consistent with this literature.

Thus, there seem to be two or three basic factors accounting for the difference in self-blame by abused-remaining and sheltered women: quantitative (amount) and perhaps qualitative (severity) differences in the abuse they have suffered and differences in marital distress. A fourth, less obvious factor may also be implicated. Sheltered women, as

contrasted to abused-remaining women, were seeking and receiving help for the abuse at the time of the study. As soon as a woman enters the shelter, she receives printed information about domestic violence that informs her that she is not responsible or to blame for her spouse's brutality. Similar statements are repeated and reinforced in one-to-one counseling sessions with shelter workers, and in twice-weekly support group meetings. Because shelter interventions concerning self-blame were not measured for this study, the impact of shelter treatments upon sheltered women's attributions is unknown.

The second major hypothesis addressed by this research is that abused women remaining in relationships would attribute the most female blame for continuing abusive incidents. This was, in fact, not the case. Abused-remaining women did not attribute more blame for continuing violence than other groups of women. All women, regardless of classification, judged a woman who remained in a battering relationship as significantly more blameworthy than a woman suffering one incident of abuse. This confirms observations made by Frieze (1979) that abused women attribute differently for the first versus subsequent violent episodes. It appears that Miller and Porter's (1983, p. 50) statement is valid "A battered woman can also take blame for causing the violence, for not being able to modify that violence, or for being too tolerant of the violence. If blame to only one of these issues is assessed, it may not be possible to fully understand or predict the woman's psychological state." This poses a dilemma for women who have abusive partners. As their mates' violence continues, they may attribute less blame to themselves as the source of the abuse, but continuance could also bring more self-blame for remaining in the

abusive relationship. The distinction between blame for one incident and for continuing incidents, and between different kinds of blame women may feel for abuse, needs to be maintained in future work in this area.

Nevertheless, all women in this study, whether abused or nonabused, attributed more blame to the male partner pictured in a vignette for both the coded unsolicited responses and the structured measure, and for a single incidence of violence as well as continuing abuse. Although this fact is not frequently discussed, it has been revealed in other studies as well (Frieze, 1979; Shields & Hanneke, 1983). Whatever bias or distortion abused women may have towards over-attributing blame to themselves, most women, regardless of experience with abuse, feel that violent male partners are more to blame for the violence they perpetrate than are their female victims.

Finally, the process of attributing blame in this sample must be discussed briefly. It was contended at the onset of this research that attributions of cause, such as have previously been assessed for spouse abuse (Frieze, 1979; Porter, 1983; Shields & Hanneke, 1983) are not equivalent to those of blame (Fincham & Jaspers, 1980; Shaver, 1985; Shaver & Drown, 1986; Shultz & Schleifer, 1983). The data obtained here indicated that cause and blame are significantly and moderately correlated ($r = .61$, $p < .001$), but they are not identical or even highly related. There appear to be several mitigating factors (such as the intentionality of the behavior, or the presence of a credible excuse) that differentiate cause from blame. It may well be that, as recent work by Fincham et al., (in press) has suggested, attributions of <u>blame</u> rather than causality predict the affective impact of spousal behaviors and mediate subsequent response to them. In any case, future

research should distinguish between the two concepts and avoiding the confusion and imprecision generated by assuming their equivalence.

Conclusions

There are three major conclusions that can be drawn from this research. First, the comparisons between women in physically abusive relationships who remain in the community and those who seek shelter suggest that the groups represent relatively distinct subsets of abused women. Research done with sheltered women may not be at all applicable to women who remain in abusive relationships. If future research is intended to speak to the problem of spouse abuse in general, abused women other than those who are sheltered or in treatment must be located. Unidentified groups must be tapped, particularly if methods to alleviate abusive situations before they become life-threatening are to be devised.

Second, although it was found here that sheltered women blame themselves less for abuse than other women did, the research does not disprove self-blame in battered women as an important phenomenon. Most women attributed some blame to themselves, and/or to the women pictured in abusive relationships, and it is simply not known what amount of self-blame may be instrumental in keeping a woman in a violent situation. Abused women who remained in their relationships ascribed more self-blame than sheltered women. This is in keeping with the fact that they reported more marital satisfaction than sheltered women, because of the literature (e.g., Fincham et al., in press; Holtzworth-Munroe & Jacobsen, 1985; Madden & Janoff-Bulman, 1981) indicating that self-blame for marital problems and marital satisfaction are strongly associated. What remains problematic is that the physical violence in

the abused-remaining group's relationships represents a danger to physical and emotional health, and a risk for future escalation.

Third, the finding that all subjects blamed an abused woman more for continuance in an abusive relationship than for a single incident of abuse must be considered. It implies that with many violent episodes, a victim's self-blame, and her censureship from others increases. There seems little doubt that this would contribute to isolation, and would create barriers to seeking help, unfortunately at a time when help would become increasingly necessary. Overall, self (and other) blame for battered women deserves continued investigation, but this must be research with comparable and representative groups, and research that adequately conceptualizes and measures self-blame.

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Table 1

Male Partner and Female Partner Physically Violent Incidents Reported on the CTS, by Group

Variable	Group		
	Non-abused $n = 20$	Abused-remaining $n = 16$	Sheltered $n = 20$
Male violence			
Mean frequency past year[a]		7.13	24.65
SD		5.94	10.40
Female violence			
Mean frequency past year	.55	6.13	4.35
SD	1.57	7.05	5.90

Note. Both male and female violence were significant.

[a]This measure was not applicable to women in the nonabused group.

Table 2

Abuse-related Characteristics by Group

Variable	Group: Non-abused n = 20	Abused-remaining n = 16	Sheltered n = 20
Number of times left partner			
M	.05	1.13	2.05
SD	.22	1.26	2.21
Recent rated severity of violence[a]			
M		2.94	5.10
SD		1.73	2.05
Most severe injury from violence[a]			
No injury		5 (31%)	3 (15%)
Injury requiring minor first aid		9 (56%)	11 (55%)
Injury requiring a doctor		2 (12%)	6 (30%)
Number of sources contacted for help now[a]			
M		.50	2.1
SD		.73	.97
Number of sources contacted for help in the past[a]			
M		.69	.92
SD		1.08	1.21

Table 2 (con't)

Abuse-related Characteristics by Group

Variable	Group		
	Non-abused $n = 20$	Abused-remaining $n = 16$	Sheltered $n = 20$
Duration of violence (months)[a]			
M		33.81	49.05
SD		33.02	35.26

Note. All variables were significant.

[a]These measures were not applicable to women in the nonabused group.

Table 3

Standard Demographics by Group

Variable	Group: Non-abused n = 20	Abused-remaining n = 16	Sheltered n = 20
Age (years)			
M	32.05	27.94	29.88
SD	9.93	5.66	13.51
Race			
White	19 (95%)	12 (75%)	14 (70%)
Religion			
Protestant	13 (65%)	9 (56%)	18 (90%)
Catholic	7 (35%)	5 (31%)	1 (5%)
Jewish	0	1 (6%)	0
Other	0	1 (6%)	1 (5%)
Education (years)*			
M	14.40	12.63	11.00
SD	1.79	1.31	2.10
Net monthly income*			
M	$736.25	$497.19	$234.50
SD	$588.22	$361.71	$279.77

Table 3 (con't)

Standard Demographics by Group

Variable	Group: Non-abused n = 20	Group: Abused-remaining n = 16	Group: Sheltered n = 20
Number of children*			
M	.55	1.63	1.95
SD	.89	1.78	1.36
Work status*			
Never worked	0	1 (6%)	2 (10%)
Worked in the past	5 (25%)	5 (31%)	16 (80%)
Work part time	2 (10%	2 (13%)	2 (10%)
Full time employment	13 (65%)	8 (50%)	0
Marital status			
Married	13 (65%)	9 (56%)	18 (90%)
Length of relationship (years)			
M	7.10	4.38	6.05
SD	9.86	3.36	2.68
Partner age (years)			
M	35.55	28.00	32.00
SD	13.21	4.53	12.01

Table 3 (con't)

Standard Demographics by Group

Variable	Group: Non-abused n = 20	Abused-remaining n = 16	Sheltered n = 20
Partner net monthly income			
M	$1491.00	$1282.44	$835.60
SD	$1623.36	$742.64	$668.14
Partner race			
White	18 (90%)	13 (81%)	13 (65%)
Partner religion			
Protestant	13 (65%)	9 (56%)	12 (60%)
Catholic	6 (30%)	4 (25%)	5 (25%)
Jew	0	0	1 (5%)
Other	1 (5%)	3 (20%)	2 (10%)
Partner education*			
M	14.70	12.25	11.65
SD	2.18	2.05	2.91
Partner work status			
Worked in the past	2 (10%)	1 (6%)	6 (30%)
Work part time	1 (5%)	1 (6%)	1 (5%)
Full time employment	17 (85%)	14 (88%)	13 (65%)

Note. Variables marked with an asterisk were significant.

Table 4

Dependency Index by Group

Variable	Group: Non-abused n = 20	Group: Abused-remaining n = 16	Group: Sheltered n = 20
Dependency Index			
M	.40	.81	1.65
SD	.68	.83	.59

Note. All comparisons were significant.

Table 5

Family History of Abuse by Group

Variable	Group		
	Non-abused $n = 20$	Abused-remaining $n = 16$	Sheltered $n = 20$
Partner family history of physical abuse			
M severity	2.72	4.20	5.93
SD	2.14	2.60	2.05
Female family history of physical abuse			
M severity	2.90	3.50	2.50
SD	2.40	2.39	2.33

Note. Only partner family history was significant.

Table 6

Mental Health Characteristics by Group

Variable	Group: Non-abused n = 20	Group: Abused-remaining n = 16	Group: Sheltered n = 20
Suicide			
Number ever attempting	1 (5%)	5 (31%)	8 (40%)
Mental health treatment			
Number obtaining	12 (60%)	11 (69%)	10 (50%)
Mental health hospitalization			
Number ever hospitalized	3 (15%)	3 (19%)	3 (15%)

Note. Only suicide was significant.

Table 7

Alcohol Use, Subjects and Partners, by Group

Variable	Group: Non-abused n = 20	Group: Abused-remaining n = 16	Group: Sheltered n = 20
Partner alcohol average intake			
None	4 (20%)	3 (19)	6 (30%)
Five or less drinks per week	11 (55%)	2 (13%)	0
Number over 5 drinks per week	5 (25%)	13 (81%)	14 (70%)
Partner frequency of alcohol intake			
Never	4 (20%)	1 (6%)	6 (30%)
Once a week	8 (40%)	5 (31%)	0
Number twice a week or more	8 (40%)	10 (63%)	14 (70%)
Female alcohol average intake			
None	3 (15%)	3 (19%)	14 (70%)
Five or less drinks per week	15 (75%)	5 (31%)	6 (30%)
Number over 5 drinks per week	2 (10%)	8 (50%)	0
Female frequency of alcohol intake			
Never	3 (15%)	3 (19%)	14 (70&)
Once a week	11 (55%)	6 (38%)	4 (20%)
Number twice a week or more	6 (30%)	7 (44%)	2 (10%)

Note. All variables were significant.

Table 8

Dyadic Adjustment Factor and Total Scores, by Group

Variable	Group: Non-abused n = 20	Group: Abused-remaining n = 16	Group: Sheltered n = 20
Dyadic Consensus factor			
M	48.55	46.56	25.85
SD	7.19	5.86	11.84
Dyadic Satisfaction factor			
M	38.05	33.44	15.75
SD	7.59	5.96	8.81
Dyadic Cohesion factor			
M	16.30	15.63	7.90
SD	3.97	2.00	4.71
Dyadic Affectional Expression factor			
M	9.70	9.13	5.95
SD	1.98	1.71	2.72
Total Dyadic Adjustment			
M	112.60	104.75	55.45
SD	18.93	11.04	22.38

Note. All variables were significant.

Table 9

Pearson Correlations Between Raters for Coded Attributions

Variable	Correlation
Number of responses	.96
Number of attributions	.71
Number male	.77
Number male behavioral	.45
Number male characterological	.81
Number female	.72
Number female behavioral	.51
Number female characterological	.85
Number situational	.19

Table 10

Attribution Indices for the Unsolicited Attribution Measure, by Group and Including Grand Means

	Group			
Index	Non-abused n = 20	Abused-remaining n = 16	Sheltered n = 20	Grand Mean N = 56
Attribution index				
M	.43	.40	.50	.45
SD	.19	.16	.21	
Male attribution index				
M	.67	.75	.85	.76
SD	.22	.33	.23	
Female attribution index				
M	.28	.16	.11	.18
SD	.20	.24	.23	

Note. Only the female index was significant.

Table 11

Mean Blame to Each Partner in a Vignette, Rated by a Male and a Female Rater on the Unsolicited Attribution Measure

	Group		
Rating	Non-abused n = 20	Abused-remaining n = 16	Sheltered n = 20
Blame to the female partner			
Male rater			
M	2.65	1.50	1.30
SD	1.57	.89	.47
Female rater			
M	3.95	2.94	2.30
SD	1.85	1.88	1.84
Blame to the male partner			
Male rater			
M	5.00	6.25	6.15
SD	1.33	.68	1.14
Female rater			
M	5.30	5.31	6.05
SD	1.34	1.35	1.36

Note. None of the variables was significant.

Table 12

Pearson Correlation Coefficients, Dependent Variables with Potential Covariates, All Groups

	Dependent Variable			
Measure	Female blame	Female blame for continuing	Male blame	Male blame for continuing
Marital adjustment	.08	-.01	-.15	-.04
Male violence	-.11	.02	.01	-.01
Duration of violence	.05	.17	.28*	-.03
Recent severity of violence	-.08	-.02	.08	-.01
Female violence	.19	.23	-.12	-.31*

*$p < .05$, two-tailed

Table 13

Pearson Correlation Coefficients, Dependent Variables with Potential Covariates, Abused Groups Only

	Dependent Variable				
Measure	Female blame	Female blame for continuing	Male blame	Male blame for continuing	Self blame
Marital adjustment	.12	-.01	-.19	-.15	.38*
Male violence	-.18	.07	.01	.11	-.39*
Duration of violence	.14	.19	.38*	.08	.04
Recent severity of violence	-.13	-.17	.12	.16	-.33*
Female violence	.37*	.29	-.15	-.30	.28
Female education	.38*	.10	.05	-.01	.15

*$p < .05$, two-tailed.

Table 14

Mean Attribution Scores and Standard Deviations for Nonabused, Abused-remaining, and Sheltered Women

	Group		
Attribution	Non-abused n = 20	Abused-remaining n = 16	Sheltered n = 20
Blame to the female			
M	3.25	3.50	2.80
SD	2.81	1.86	1.51
Blame to the female for continuing			
M	4.20	5.25	4.55
SD	3.47	2.79	3.72
Blame to the male			
M	12.95	12.56	13.30
SD	1.36	1.97	1.72
Blame to the male for continuing			
M	12.75	10.94	12.80
SD	1.74	3.36	2.59
Self-blame for experienced violence			
M		3.00	1.60
SD		1.63	1.19

This measure was not applicable to women in the nonabused group.

Table 15

Pearson Correlations between Covariates Differentiating Abused Groups

	Covariate			
Covariate	Male violence	Duration of violence	Recent severity of violence	Marital adjustment
Male violence	——	.15	.51*	-.70**
Duration of violence	——	——	.19	-.37*
Recent severity of violence	——	——	——	-.35*
Total dyadic adjustment	——	——	——	——

*$p < .05$, two-tailed. **$p < .001$, two-tailed.

Table 16

Attributions to Self Correlated with Attributions to Another Female for Each Abused Group

	Attribution		
Group	Cause	Responsibility	Blame
Abused-remaining[a]	.48*	.46*	.76**
Sheltered[b]	.48*	.01	.13

[a] $n = 16$. [b] $n = 20$.

* $p < .05$, two-tailed. ** $p < .001$, two-tailed .

Table 17

Intercorrelations of the Elements of Attributing Blame to the Female Partner, All Groups

	Attribution					
	Cause	Intent	Choice	Responsibility	Judgment	Excuse	Blame
Cause	—	.63***	.02	.58***	.06	-.04	.61***
Intent		—	.08	.54***	.01	-.22	.66***
Choice			—	.01	.38***	.44***	.08
Responsibility				—	.11	-.26*	.57***
Judgment					—	.47***	.16
Excuse						—	-.12
Blame							—

*$p < .05$, two-tailed. **$p < .01$, two-tailed. ***$p < .001$, two-tailed.

Appendix A

Ad for Participation in the Research

The following ad appeared in the Virginia Pilot/Ledger Star for four nonconsecutive weeks in Summer, 1985. It was also posted, in the same form, on supermarket bulletin boards in Hampton, Newport News, Norfolk, and Williamsburg.

> WANTED: Women who have been involved in a live-in relationship with a male partner (can be married or unmarried) for at least a year are needed for a research study. The research is sponsored by the College of William and Mary. Participation will require an initial interview about an hour long. The interview will be at Old Dominion University. Women meeting study requirements after this interview will be asked to stay and complete questionnaires asking for their opinions about relationship interactions. This will take an additional 1 and 1/2 hours. Women who stay for the second session will be paid $15 for their participation. If interested, please call 627-4515 in Norfolk for more information, or write to Debra Drown, Center for Psychological Services, College of William and Mary, Williamsburg, VA 23185.

Appendix B

Conflict Tactics Scales, Form N

Subject #_____

Conflict Tactics Scale, Form N

Instructions: No matter how well a couple gets along, there are times when they disagree on major decisions, get annoyed about something the other person does, or just have spats or fights because they're in a bad mood or tired or for some other reason. They also use many different ways of trying to settle their differences. I'm going to read a list of some things that you and your partner might have done when you had a dispute, and would like you to tell me for each one how often you did it in the past year.

(Respondent will be handed a card with the response options listed.)

0 = Never
1 = Once
2 = Twice
3 = 3-5 times
4 = 6-10 times
5 = 11-20 times
6 = More than 20 times
7 = Once a day
X = Don't know
Y = Yes
N = No

	Q. 1 Respondent Past Year	Q. 2 Partner Past Year	Q. 3 Ever
a. Discussed the issue calmly	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
b. Got information to back up (your/his) side of things	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
c. Brought in or tried to bring in someone to help settle things	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
d. Insulted or swore at the other one	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
e. Sulked and/or refused to talk about it	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
f. Stomped out of the room or house (or yard)	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
g. Cried	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
h. Did or said something to spite the other one	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
i. Threatened to hit or throw something at the other one	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
j. Threw or smashed or hit or kicked something	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X

Subject #_____

0 = Never
1 = Once
2 = Twice
3 = 3-5 times
4 = 6-10 times
5 = 11-20 times
6 = More than 20 times
7 = Once a day
X = Don't know
Y = Yes
N = No

	Q. 1 Respondent Past Year	Q. 2 Partner Past Year	Q. 3 Ever
k. Threw something at the other one	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
l. Pushed, grabbed, or shoved the other one	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
m. Slapped the other one	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
n. Kicked, bit, or hit with a fist	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
o. Hit or tried to hit with something	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
p. Beat up the other one	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
q. Threatened with a knife or gun	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
r. Used a knife or gun	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X
s. Other (probe)_____ _____	0 1 2 3 4 5 6 7 X	0 1 2 3 4 5 6 7 X	Y N X

2. And what about your partner? Tell me how often he (item) in the past year.

For each item circled either "never" or "don't know" for both respondent and the partner, ask:

3. Did you or your partner ever (item)?

Appendix C

Demographic Questionnaire

Subject #_____

Demographic Questionnaire

Information about Subject:

2. Age: _____

3. Ethnic background: a. Caucasian b. Black c. Oriental
   d. Spanish american e. Other _____

4. Religion of childhood: a. Protestant b. Catholic c. Jewish
   d. Other e. None

5. Education: a. Less than high school b. High school grad.
   c. Technical school d. Some college e. College degree
   f. Graduate school

6. Work experience outside the home: a. None b. Worked in past
   c. Now work part time d. Now work full time

7. Present occupation _____
   a. Managerial and professional
   b. Technical, sales and administrative support
   c. Service
   d. Farming, forestry, fishing
   e. Precision production, craft and repair
   f. Operators, fabricators, laborers

8. Personal net income (last month): a. 0 b. $1-199 c. $200-399
   d. $400-599 e. $600-799 f. $800-999 g. $1000 and over

9. Relationship: a. Married b. Cohabiting

10. Years of relationship: a. 1-4 b. 5-9 c. 10-14 d. 14-20 e. 20+

11. How many previous marriages: a. 0 b. 1 c. 2 d. 3 e. 4

Information about partner:

12. Age: _____

13. Ethnic background: a. Caucasian b. Black c. Oriental
    d. Spanish american e. Other _____

14. Religion of childhood: a. Protestant b. Catholic c. Jewish
    d. Other e. None

15. Education: a. Less than high school b. High school grad.
    c. Technical school d. Some college e. College degree
    f. Graduate school g. Graduate degree

Subject #_____

16. Work experience outside the home: a. None b. Worked in past
c. Now work part time d. Now work full time

17. Present occupation _____
a. Managerial and professional
b. Technical, sales and administrative support
c. Service
d. Farming, forestry, fishing
e. Precision production, craft and repair
f. Operators, fabricators, laborers

18. Personal net income (last month): a. 0 b. $1-199 c. $200-399
d. $400-599 e. $600-799 f. $800-999 g. $1000 and over

19. Number of children presently living in the home: a. 0 b. 1
c. 2 d. 3 e. 4 f. 5 g. over 5

20. Number of children in each age group: a. 0-5 yrs. ___
b. 6-12 yrs. ___ c. 13-18 yrs. ___ d. over 18 yrs. ___

(at this point in the interview the questions of the DAS will be administered. Following completion of the DAS, the CTS will be administered. Subjects responding affirmatively to questions about partner-inflicted physical violence will then be asked to answer questions 21 through 39 below. Those responding negatively will be asked questions 28 through 39.)

21. When was the first physical fight in your relationship? _____

22. Have there been more physical fights recently than in the past? (Please indicate answer on the scale below.)

Many less :____:____:____:____:____:____:____:Many more

23. Did you go to anyone for help last time there was a fight? (Circle all that apply)
a. no one b. relative or friend c. family court d. police
e. therapist f. shelter or helpline

24. Before that last fight, did you contact anyone when there was a fight? (Circle all that apply)
a. no one b. relative or friend c. family court d. police
e. therapist f. shelter

25. What is the most serious injury you have had from a fight?
a. no injury b. injury requiring minor first aid
c. injury requiring emergency room
d. injury requiring hospitalization

Subject #_____

26. How much physical fighting was there in your family of origin?

None:____:_____:_____:_____:_____:_____:_____:Extreme Amount

27. How much physical fighting was there in your partner's family of origin? a. don't know

None:____:_____:_____:_____:_____:_____:_____:Extreme Amount

28. Have you ever left your partner? a. no b. once c. twice d. three times e. four times f. over four times

29. Were you sexually abused (fondled or forced to have intercourse by someone older and stronger) as a child? a. yes b. no

30. How much wine/beer/hard liquor (Circle the relevant drink) do you consume in a week? (Average this over the last month)
a. none b. 1-5 drinks c. 6-10 drinks d. 11-15 drinks
e. 16-20 drinks f. 21-25 drinks g. 26-30 drinks
h. 31-35 drinks i. 36-40 drinks j. 41 drinks and over

31. How much wine/beer/hard liquor (Circle the relevant drink) does your partner consume in a week? (Average this over the last month)
a. none b. 1-5 drinks c. 6-10 drinks d. 11-15 drinks
e. 16-20 drinks f. 21-25 drinks g. 26-30 drinks
h. 31-35 drinks i. 36-40 drinks j. 41 drinks and over

32. How often do you consume alcohol? (Average over past month)
a. never b. once a week c. 2-3x a week d. 4-5x a week
e. 6-7x a week (daily)

33. How often does your mate consume alcohol? (Average over past month)
a. never b. once a week c. 2-3x a week d. 4-5x a week
e. 6-7x a week (daily)

34. Have you ever sought professional help for emotional problems?
a. never b. in the past c. currently

35. Have you ever been hospitalized for emotional problems? a. Y b. N

36. Have you ever tried to commit suicide? a. Y b. N

37. (Sheltered only) How many days have you been in the shelter? _____

38. How many times have you been in the shelter?_____

Subject #_____

39. In what ways would you like your life to change? _____

_____

_____

40. I realize we've discussed some sensitive issues, and I wonder if you felt comfortable enough to answer all the questions frankly? (If they say they didn't, ask which questions those were.)

_____

_____

41. Do you have any questions?

_____

_____

Appendix D

Dyadic Adjustment Scale

Subject #_____

Dyadic Adjustment Scale

Instruction: Most persons have disagreements in their relationships. I'm going to read a list of some things that are issues in relationships, and I would like you to tell me about how much you and your partner agree or disagree on these matters.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
1. Handling family finances	5	4	3	2	1	0
2. Matters of recreation	5	4	3	2	1	0
3. Religious matters	5	4	3	2	1	0
4. Demonstrations of affection	5	4	3	2	1	0
5. Friends	5	4	3	2	1	0
6. Sex relations	5	4	3	2	1	0
7. Conventionality (correct or proper behavior)	5	4	3	2	1	0
8. Philosophy of life	5	4	3	2	1	0
9. Ways of dealing with parents or in-laws	5	4	3	2	1	0
10. Aims, goals, and things believed important	5	4	3	2	1	0
11. Amount of time spent together	5	4	3	2	1	0
12. Making major decisions	5	4	3	2	1	0
13. Household tasks	5	4	3	2	1	0
14. Leisure time interests and activities	5	4	3	2	1	0
15. Career decisions	5	4	3	2	1	0

	All the time	Most of the time	More often than not	Occasionally	Rarely	Never
16. How often do you discuss or have you considered divorce, separation or terminating your relationship?	0	1	2	3	4	5

Subject #_____

	All the time	Most of the time	More often than not	Occa-sion-ally	Rarely	Never
17. How often do you or your mate leave the house after a fight?	0	1	2	3	4	5
18. In general, how often do you think that things between you and your partner are going well?	5	4	3	2	1	0
19. Do you confide in your mate?	5	4	3	2	1	0
20. Do you ever regret that you married? (or lived together)	0	1	2	3	4	5
21. How often do you and your partner quarrel?	0	1	2	3	4	5
22. How often do you and your mate "get on each other's nerves?"	0	1	2	3	4	5

	Every day	Almost every day	Occa-sionally	Rarely	Never
23. Do you kiss your mate?	4	3	2	1	0

	All of them	Most of them	Some of them	Very few of them	None of them
24. Do you and your mate engage in outside interests together?	4	3	2	1	0

How often would you say the following events occur between you and your mate?

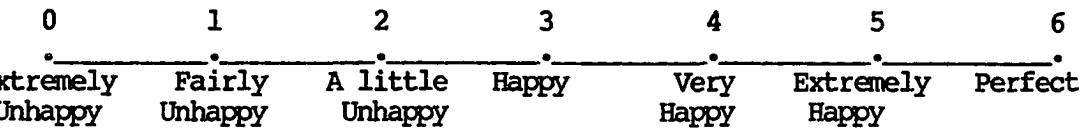
	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
25. Have a stimulating exchange of ideas	0	1	2	3	4	5
26. Laugh together	0	1	2	3	4	5
27. Calmly discuss something	0	1	2	3	4	5
28. Work together on a project	0	1	2	3	4	5

Subject #_____

These are some things about which couples sometimes agree and sometimes disagree. Did either of these items cause differences of opinions or problems in your relationship during the past few weeks?

	Yes	No
29. Being too tired for sex.	0	1
30. Not showing love.	0	1

31. The dots on the line represent different degrees of happiness in your relationship. The middlepoint, "happy" represents the degree of happiness of most relationships. Please show me the dot which best describes the degree of happiness, all things considered, of your relationship.



32. Which of the following statements best describes how you feel about the future of your relationship?
    5—I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
    4—I want very much for my relationship to succeed, and will do all I can to see that it does.
    3—I want very much for my relationship to succeed, and will do my fair share to see that it does.
    2—It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.
    1—It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
    0—My relationship can never succeed, and there is no more that I can do to keep the relationship going.

Appendix E

Unsolicited Attribution Measure

Subject #_____

Our stove broke last winter. I don't know what was wrong with it, but the landlord got a new part and brought it over. My husband set it on top of the refrigerator until he could get around to fixing it. But it didn't look good sitting out there in the open on my refrigerator, so I put it in the drawer next to the stove. That's the drawer where we always put junk and other odd things that don't fit anywhere else.

So my husband, Tom's his name, wanted that part one day and he wanted it right them. I still can't figure out what happened to it, but I just couldn't find it. I looked through everything in that drawer, even took everything out. But the part had totally disappeared. I swore to Tom that I'd put it up for safekeeping, and someone must have taken it. Well, he didn't believe me, no matter what I said. He started slapping me then, and he got so mad. He punched me with his fist and I fell against the kitchen table.

Subject #_____

Well, that fight started over an unironed shirt. Bob got up one morning, he was getting ready to go to work. He looked in the closet, but I guess he didn't find what he wanted. So he yelled out, "Where's my shirt, you know, the one with the blue stripes?"

Well that was a shirt he'd worn the day before, so I answered, "That's not ironed or clean. But you have a new one, that plaid one that fits you real good. It's right there in the closet, ready to go."

He didn't look happy about that, and he said, "That's not the one. I want the striped one. How come you're not a good wife? How come you don't have it ready?" I told him, "You wore it yesterday though, and with the children and all, I haven't had the time to wash and iron it."

"Humph!" he answered, "you still could've washed it last night, you could've had it for me this morning!" "But honey," I said, "there just really wasn't any time."

"Are you saying I'm wrong!" he yelled. Then he just hauled off and slapped me across the face 2 or 3 times, and when I tried to get away, he knocked me down with his fist in my stomach.

Subject #_____

I was working then, a split-shift, 3 to 11 p.m. or 11 to 7 a.m. The youngest boy was 2, and if I worked 11 to 7 a.m., he was up and ready to play by the time I got home all tired. And my husband Bill had to get up for work early, 6 a.m. A lot of the times I wouldn't even hear the alarm clock, I was so tired from working and taking care of the kids and taking care of Bill.

He just kept getting to work late. And they fired him. So he came home and started in on me. He said it was my fault, he lost the job because I was not getting up and getting him up. Because I was not getting up and fixing his lunch, and laying his work clothes out.

I tried to reason with him. He just got madder, gritting his teeth and calling me names. I tried to tell him not to call me those things, but he just knocked me with his fist and I slammed upside the wall while he slapped me silly.

Subject #_____

Anywhere I went, he would call up there to see if I was there. I'd be sitting somewhere, and the phone would ring and I would know it was him. So would everyone else. I could practically hear them thinking "There goes Fred again." And when I'd get home, he'd say "Where you been? What did you do? Who did you talk to?" It was like the 3rd degree.

Well one day I told him I'd gone to one friend's house, but when I got there she had gone to her mother's. So I went over there for a visit, and afterwards I stopped to do some shopping, just looking for some things for the kids, and something pretty for me.

When I got home that time he didn't ask any questions. He didn't give me any time to explain why I wasn't at my friend's house when he called. He just hauled off and whalloped me when I came in the door, and left me lying there in the hallway.

Appendix F

Coding Criteria

The purpose of the coding is to classify free-form responses made by subjects participating in the study into attributional and nonattributional statements. Those statements that are attributions will be further categorized on several dimensions to be described below. To aid you in this task, I will supply you with definitions of the relevant concepts and with information about the theoretical background of the study.

The attributions to be classified involve not only judgments of causality, but those of responsibility and blameworthiness as well. According to the theory delineated by Shaver (1985), cause, responsibility, and blameworthiness are related but not identical concepts. When as event with harmful effects occurs, the rational perceiver first decides what and/or who has participated in causing it. This is an attribution of causality, an explanation that described how the event came about, what produced it. In classifying the data, you may find it useful to try the words "It happened because..." before a subject's statement to see if the content constitutes an attribution.

If the perceiver decides that a person is causal to the event, he or she then makes an evaluation or judgment about how much the person can be held responsible (morally accountable) for the harmful event. This is an attribution of responsibility. And at the conclusion of the process, if the perceiver judges that the person is morally accountable for an intentional action and has no acceptable justification or excuse

for his or her action, the person is held to blame. This is an attribution of blame. Thus, while attributions of causality answer the question "What or who caused it?", attributions of responsiblity and blame involve social judgment and answer the question "Who is at fault?"

In all cases, an attribution may be signaled by a phrase that denotes dispositional attributes about a stimulus person which are perceived as motivating their actions (a personality adjective, as in "She is jealous"). An attribution may be a statement about causal relations for specific effects within the whole story, or a statement about more general effects for the story as a whole. Nonattributions will often be simple descriptions of what happened, affective reactions or prescriptions for actions to be taken.

When you have decided that a statement is an attribution, you must then decide if it is an attribution to the male partner, the female partner, or to the situation. And finally, attributions to the male and female partners must be categorized as either behavioral or characterological. A behavioral attribution refers to someone's action or transitory feelings, to something someone did or felt that was relatively unstable, situation-specific, and easily changed. A characterological attribution, on the other hand, refers to the person's enduring personality, and if often signaled by the use of the verb "is" e.g., "He is lazy". It implies that a relatively stable, unchangeable and global (extending over many situations) aspect of the person is involved.

Please limit any inferences you may have to make to the first level beyond the face value of the data and no further. At each decision point there will be an option to code "Can't decide", if you feel there

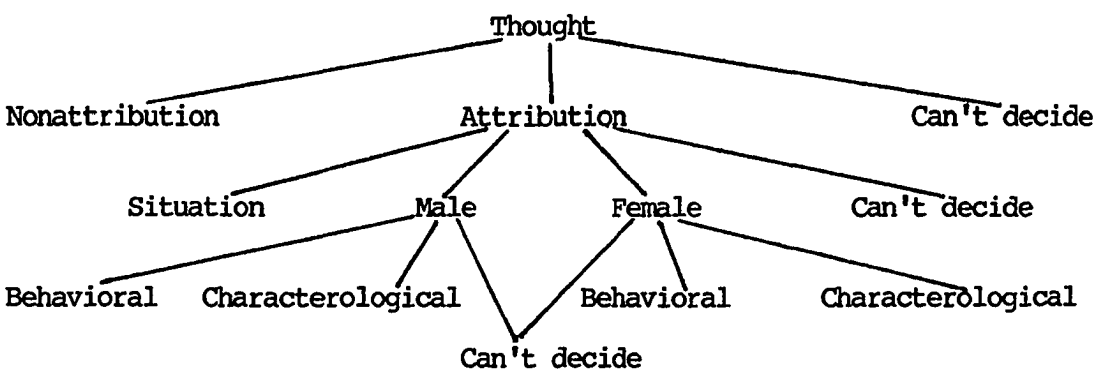
is insufficient information to categorize a statement further. Use it if you must, but use it conservatively. In the protocols, the subject has set off each complete thought with numbers or speces to indicate its separateness. If this hasn't been done, score each complete sentence. If there's no punctuation (there are a few cases like this) score each complete thought as you judge it. If a thought contains more than one attribution, as sometimes happens in separate clauses within a sentence, score both, but again, be conservative.

When you have read a subject's responses to all four of the stories, please complete a Likert rating of how much you think, overall, that the subject has held the male partner to blame and how much the subject has held the female to blame.

Decision Tree

For each complete thought or sentence:

1. Is it an attribution? Not an attribution? Or can't be decided.
2. If it is an attribution, who or what does it specify? The male partner? The female? The situation? Or can't decide.
3. If it specifies an actor as causal or responsible, does it indicate whether it is the actor's behavior character or can't decide that is most important.



Appendix G

Structured Attribution Measure

INSTRUCTIONS: We would like you to read some of the stories again, but this time there will be questions about them. Try again to place yourself in the role of the female partner and imagine what it would be like to be in the relationship in the story. You will be asked to answer questions about the story after you finish reading it.

Subject #_____

The following questions ask for your opinions about the male partner in the story only.

11. How much do you think the male partner caused the violence that occurred? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

12. How much do you think the male partner intended (meant to bring about) the violence that happened. (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

13. How much do you think the male partner could not have done other than he did (was moved by overwhelming forces inside or outside of himself)? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

14. How much do you think he was morally responsible for the violence happening? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

15. How much do you think the male partner had the capacity to judge right from wrong when he was acting? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

16. How much do you think there are reasons that excuse him from blame for the violence happening? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

17. How much do you think the male partner is to blame for the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

Subject #_____

18. To the extent that you think the male partner is to blame for the violence, how much do you think it is because of:

a. A personal characteristic of his (a part of his personality, or something that he really couldn't change)? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

b. How much do you think it is because of a behavior, something he has done but could change? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

19. How likely do you think it is that he will do this kind of thing again in the future? (Put a check mark in the space that shows your opinion).

Won't Happen :_____:_____:_____:_____:_____:_____:_____: Will happen

110. If events very similar to the ones described in the story were to continue, how much do you think the male partner would be the cause of the violence? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

111. If events very similar to the ones described in the story were to continue, how much do you think the male partner would be responsible for the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

112. If events very similar to the ones described in the story were to continue, how much do you think the male partner would be to blame for the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

Subject #_____

The following questions ask for your opinions about the female partner in the story only.

21. How much do you think the female partner caused the violence that occurred? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

22. How much do you think the female partner intended (meant to bring about) the violence that happened. (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

23. How much do you think the female partner could not have done other than she did (was moved by overwhelming forces inside or outside of herself)? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

24. How much do you think she was morally responsible for the violence happening? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

25. How much do you think the female partner had the capacity to judge right from wrong when she was acting? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

26. How much do you think there are reasons that excuse her from blame for the violence happening? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

27. How much do you think the female partner is to blame for the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

Subject #_____

28. To the extent that you think the female partner is to blame for the violence, how much do you think it is because of:

a. A personal characteristic of hers (a part of her personality, or something that she really couldn't change)? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

b. How much do you think it is because of a behavior, something she has done but could change? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

29. How likely do you think it is that she will do this kind of thing again in the future? (Put a check mark in the space that shows your opinion).

Won't Happen :_____:_____:_____:_____:_____:_____:_____: Will Happen

210. If events very similar to the ones described in the story were to continue, how much do you think the female partner would be the cause of the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

211. If events very similar to the ones described in the story were to continue, how much do you think the female partner would be responsible for the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

212. If events very similar to the ones described in the story were to continue, how much do you think the female partner would be to blame for the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

213. What do you think the woman in the story should do now?

Subject #_____

If you have experienced physical violence in your own relationship, please give your opinions about the events you have experienced.

31. How much do you think that you have caused the violence that has occurred? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

32. How much do you think that you have intended (meant to bring about) the violence that happened. (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

33. How much do you think you could not have done other than you did (were moved by overwhelming forces inside or outside of yourself)? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

34. How much do you think you were morally responsible for the violence happening? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

35. How much do you think that you had the capacity to judge right from wrong when you were acting? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

36. How much do you think there are reasons that excused you from blame for the violence happening? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

37. How much do you think you were to blame for the violence? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

Subject #_____

38. To the extent that you think you were to blame for the violence, how much do you think it is because of:

a. A personal characteristic of yours (part of your personality, or something that you really couldn't change)? (Put a check mark in the space that shows your opinion.)

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

b. How much do you think it was because of a behavior, something you had done but could change? (Put a check mark in the space that shows your opinion).

Not at all :_____:_____:_____:_____:_____:_____:_____: Totally

39. How likely do you think it is that you will do this kind of thing again in the future? (Put a check mark in the space that shows your opinion).

Won't Happen :_____:_____:_____:_____:_____:_____:_____: Will Happen

310. How much do you think the reasons for your blame influence other situations in your life besides the violence? (Put a check mark in the space that shows your opinion.)

Influences just this situation :_____:_____:_____:_____:_____:_____:_____: Influences very many situations

Subject #_____

The following questions have to do with beliefs that people have about how things happen when they interact with others. Please indicate how much you agree with these beliefs by putting a check in the space that represents your opinion.

41. Even when I'm feeling self-confident about most things, I still seem to lack the ability to control social situations. (Put a check in the space that shows how much you agree with this statement.)

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

42. I have no trouble making and keeping friends. (Put a check mark in the space that shows how much you agree with this statement.)

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

43. I'm no good at guiding the course of a conversation with several others. (Put a check mark in the space that shows how much you agree with this statement.)

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

44. I can usually establish a close personal relationship with someone I find attractive. (Put a check in the space that shows how much you agree with this statement.)

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

45. When being interviewed I can usually steer the interviewer toward the topics I want to talk about and away from those I wish to avoid. (Put a check mark in the space that shows how much you agree with this statement.)

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

46. If I need help in carrying off a plan of mine, it's usually difficult to get others to help. (Put a check mark in the space that shows how much you agree with this statement).

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

Subject #_____

47. If there's someone I want to meet I can usually arrange it.

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

48. I often find it hard to get my point of view across to others.

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

49. In attempting to smooth over a disagreement I often make it worse.

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

410. I find it easy to play an important part in most group situations.

Disagree :_____:_____:_____:_____:_____:_____:_____: Agree

And finally, please answer the two questions below that are about the stories you read in the beginning of the questionnaire.

51. How similar were the stories told above to your own experience? (Put a check mark in the space that shows your opinion.)

Not at all similar :_____:_____:_____:_____:_____:_____:_____: Very, very similar

52. How frequently has an episode very, very similar to either of the stories described above happened to you? (Put a check mark in the space that shows your opinion.)

Never :_____:_____:_____:_____:_____:_____:_____: All the time

Appendix H

Consent Form for Research

Psychology Department, College of William and Mary

The research being conducted by Debra Drown and Dr. Kelly G. Shaver on family behavior has been described to me. I know that during this first session I will be asked some questions about my educational background, my family finances, and my opinions. I also know that I will be asked to answer two questionnaires dealing with family conflict. I understand that if my discussion of family conflict reveals any instances of child abuse, Virginia law requires that the researchers report those instances to the appropriate social service agency. I know that I can refuse to answer any questions I find personally objectionable, and that I can stop taking part in the first interview at any time.

I know that as soon as this first interview is over, I will be told the purpose of the interview and will have the opportunity to stop taking part in the research and withdraw my data. I know that if I choose to continue, and if I qualify to continue, I will be asked to remain for a second session. When I begin the second session, I will receive a one-time payment of $15 for taking part in the study. I also know that I can stop taking part at any time during the second interview without losing any of the payment I might have received.

My signature on the line below attests to my voluntary participation in this first interview under the conditions outlined above.

_____ _____

(date) (signature)

_____ _____

(date) (witness)

Consent Form for Research

Psychology Department, College of William and Mary

I have completed the first interview session of the research on family conflict being conducted by Debra Drown and Dr. Kelly G. Shaver. I have been told that a central purpose of the first interview was to determine whether my live-in partner has ever been physically violent toward me. I understand why it was necessary to ask me questions about such physical violence and I agree to have my answers to these questions included in the data to be analyzed. I know that if I choose to take part in the second session, and if I qualify to participate, I will be asked to evaluate some standard incidents of spouse abuse. I understand that these incidents will be described to me in written materials, and I will be asked to answer a number of questions regarding causes of the event, and the responsibility of the people involved for the events that took place.

I know that my responses will be identified only by number, and that my name will not be placed on any of the questionnaire materials. I also know that my name will not be placed on any of my responses during the second session of the study. My name will only appear on the first consent form, and on this consent form, and neither form will ever be connected with my responses. I understand that it is possible for a court to demand information from the researchers and that the researchers must cooperate fully with the court. But I also understand that if such a legal demand is made it will be unlikely that the researchers will be able to connect my name to my responses in either session.

I know that in the second session I may refuse to answer any questions that I find personally objectionable, and that I may stop taking part in that session at any time without losing the $15 I will have received for attending. I understand that even at the conclusion of the second session I will still have the opportunity to withdraw permission for my data to be included.

I agree to hold harmless the College of William and Mary, its employees, students, and agents, from and against any and all liability from injury which may be suffered by myself as a result of, or in any way connected with, my participation in this research.

My signature below attests to my continued voluntary participation in this research under all of the conditions outlined above.

_____ _____

(date) (signature)

_____ _____

(date) (witness)

Appendix I

Attribution Session Instructions

The purpose of this session is to gather more information about your thoughts on the use of physical tactics when there is conflict in a relationship. We are particularly interested in hearing the thoughts and feelings of women who are in relationships, as we think they'll be valuable in finding ways to help people who are in distressing relationships.

I am going to give you two questionnaires. Each will present stories where there are physical fights in a relationship. It usually takes about an hour or so for people to complete the questionnaires, but please take as much time as you need. After you have finished with the questionnaires, you will be able to talk to the experimenter about your reactions to them, and you will be told the specific questions the research is trying to answer. Any questions you may have about the research will be answered then.

In the meantime, I will try to answer any questions or concerns you may have about how to fill out the questionnaire. Try to respond as honestly and freely as possible, with what you really think. Remember, you participation in this study is strictly confidential. Your name will not be connected with the answers you give. Remember that you also have the right to leave the study at any time, although then we wouldn't be able to use your thoughts and opinions in the research.

Appendix J

Computer Printout of Raw Data

from the Structured Attribution Measure

```
**** TSO FOREGROUND HARDCOPY ****
DSNAME=WPS2KGS.DEBRAB.CHANGED.DATA

 1  1 28 2 1 16 3 6  800 0  1 0 25 2 1 14 3 4  600 0000    0 0 0000000000000000
 1 2 1 0 1 1 2 1 2 0 0 0  0 0 001010                                    0000000
 1 0 0 .43 0 0 1400 1600 2400 2000  -400 0 0 0  0                       0000000
 1 54 16 38 10 118 51 11  8 13  6  0  0  0  0  0  0  24  14  0  0       0000000
 1 12.36 16.45   .00   .00 10.00 13.88 16.59   .00   .00   .00          0000000
 1   .00   .00   .00   .00   .00   .00   .00                            0000000
 1  8.24 13.16   .00   .00  5.00   .00 11.06   .00   .00   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                              0000000
 28.81  21.40  62.83  32.83    .00    .00    .00    .00    .00    .00   0000000
 91.64  54.23    .00    .00 42 1 2 3 4 2 3 1                           0000000
0 0 0 0 0 0 0 0 0 0 0 3 2                                               0000000
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 5 4 7 7 4 6 7 5 6 4 5 6 7 0 0 0 0 0 0 0 0 0 0 0 0 0                   0000000
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 6 7 7 51414 5 8 8 7 81212 10 81314111213 91111111313                  0000000
 2  1 36 2 4 12 2 6  400 0  3 1 36 2 4 19 3 2  800 0000    0 0 0000000000000000
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 2 0 0 .67 0 0 1900 1200 1600 2700  1100 0 0 0  0                       0000000
 2 47 17 38  9 111`34  9  9 17  7  0  2  0  0  0  2  26  18  0  0       0000000
 2 10.30  9.87  4.29 28.55 10.00 10.41 16.59   .00   .00   .00          0000000
 2   .00   .00   .00   .00   .00   .00   .00                            0000000
 2 10.30 13.16   .00 28.55   .00   .00 11.06   .00 12.36   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                              0000000
 24.46  23.46  87.91  39.61    .00  12.36    .00    .00    .00    .00   0000000
112.37  75.43    .00    .00 38 1 2 4 3 1 4 0                           0000000
0 0 0 0 0 0 0 0 0 0 0 2 1                                               0000000
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 3  1 23 2 4 16 3 6 1000 0  2 0 26 5 1 17 3 2 7500 1000    0 0 0000000000000000
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 3 0 1 .88 0 1 1700 1600 2600 9200  6600 1 0 0  0                       0000000
 3 47 15 41 12 115 52  2  0 23 15  0  0  0  0  0  0  25  15  0  0       0000000
 3   .00   .00  8.58 22.84 15.00 20.82 22.12   .00   .00   .00          0000000
 3   .00   .00   .00   .00   .00   .00   .00                            0000000
 3   .00   .00   .00 34.26 20.00   .00 11.06   .00   .00   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                              0000000
  8.58    .00 114.32  82.09    .00    .00    .00    .00    .00    .00   0000000
122.90  82.09    .00    .00 61 3 1 2 4 1 3 1                           0000000
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00000000000000000000000000000011217711141113000000000000000           0000000
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 4 2 5 3 1 2 6 3 4 1 1 1  0 0 000100                                         0000000
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 4 12.36 19.74 12.87 34.26 30.00 20.82 27.65 13.06 12.36  6.76               0000000
 4   .00   .00  6.71   .00   .00   .00   .00                                 0000000
 4 12.36 16.45  4.29 28.55 30.00  6.94 27.65 19.59 18.54 13.52               0000000
 6.71  6.65  6.71   .00   .00   .00   .00                                    0000000
 44.97  33.10 146.27 126.68  38.89  71.72    .00    .00  38.89  38.89       0000000
230.13 231.50  13.47  33.59 63 1 2 3 4 2 3 1                                 0000000
6 5 7 5 1 6 5 6 6 1 1 1 1                                                    0000000
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 5 0 0 .56 0 0 1100 1700 2500 2100  -400 3 0 0  0                            0000000
 5 54 22 42  9 127 45  9 10 16  0  1  0  0  0  1  0  26  10  0  0            0000000
 5 12.36  9.87   .00 17.13 10.00 20.82   .00   .00  6.18   .00               0000000
 5   .00   .00   .00   .00   .00   .00   .00                                 0000000
 5 12.36 13.16   .00   .00   .00   .00   .00   .00   .00   .00               0000000
  .00   .00   .00   .00   .00   .00   .00                                    0000000
 22.23  25.52  75.90    .00   6.18    .00    .00    .00   6.18   6.18       0000000
104.31  25.52    .00    .00 45 4 1 2 3 2 4 0                                 0000000
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 6 0 0 .35 0 0 1400 1400 2860 2200  -660 0 0 0  0                            0000000
 6 52 17 36  9 114 45  4  2 11  8  0  0  0  0  0  0  15  10  0  0            0000000
 6  8.24   .00   .00   .00 20.00 10.41   .00   .00   .00   .00               0000000
 6   .00   .00   .00   .00   .00   .00   .00                                 0000000
 6  4.12   .00   .00   .00 20.00   .00   .00   .00   .00   .00               0000000
  .00   .00   .00   .00   .00   .00   .00                                    0000000
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 61.01   46.48     .00     .00 40 1 3 2 4 3 4 0                                  0000000
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 2 2 3 2 2 2 2 2 3 9 2 9 9 1412 21414 214 31414141412                            0000000
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 7 0 0 .60 0 0 1500 1500 1900 2100   200 0 0 0  0                                0000000
 7 58 18 41  8 125 44  6  6 17 12  0  1  0  0  0  1  23  19  0  0                0000000
 7 12.36    .00    .00 11.42 15.00 13.88 16.59    .00    .00    .00              0000000
 7   .00    .00    .00    .00    .00    .00    .00                               0000000
 7 12.36    .00    .00 11.42 15.00    .00 16.59    .00   6.18    .00             0000000
  .00    .00    .00    .00    .00    .00    .00                                  0000000
 12.36   12.36   84.84   65.37     .00    6.18     .00     .00     .00     .00   0000000
 97.20   83.91     .00     .00 55 1 4 3 2 1 2 1                                  0000000
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 2 2 6 21414 2 2 714 2 6 2 1411 314 9 210 61314141414                            0000000
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 8 4   4 0 1 1 1 1 2 1 0  0 0 000100                                             0000000
 8 0 0 .17 0 0 1500 1200 2200 1700  -500 2 1 4  5                                0000000
 8 47 15 20  8  90 11 15  0 26 25 17 22  0  1 17 23  58  48  9 14                0000000
 8 10.30 19.74 17.16 34.26 15.00 20.82 33.18 32.65 18.54  6.76                   0000000
 8 20.13 19.95 13.42    .00    .00    .00    .00                                 0000000
 8   .00    .00    .00 34.26 20.00 13.88 27.65 39.18 18.54 20.28                 0000000
26.84 19.95 20.13    .00    .00  6.94    .00                                     0000000
 47.20     .00 131.21 129.33 111.45 144.92     .00   6.94 111.45 111.45          0000000
289.86 281.19  60.26  94.14 45 1 2 4 3 1 4 1                                     0000000
3 1 6 2 7 5 2 2 7 7 7 3 4                                                        0000000
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 2 2 8 21414 2 2 214 3 2 2 1410 21410 214 31414131214                            0000000
 9  1 36 2 4 17 1 4  200 1  3 3 38 2 4 16 3 3  820 0000    0 0 000000000000000000
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 9 1 0 .80 0 1 1600 1700 1900 2420   520 0 0 0  0                                0000000
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```
 9 34 13 28  6  81 15 13  1 11  7  7  0  0  0  7  0  31      1  0        0000000
 9 12.36 13.16 12.87 17.13 10.00 20.82   .00 19.59 18.54  6.76          0000000
 9   .00   .00   .00   .00   .00   .00   .00                            0000000
 9  2.06         .00   .00   .00   .00 16.59   .00   .00   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                              0000000
 38.39          47.95  38.95  44.89    .00    .00    .00  44.89  44.89   0000000
131.23           6.76    .00 55 3 4 1 2 4 1 1                          0000000
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 5 1 4 4 7 6 3 6 6 4 1 1 1 7  1 1 6 1 7 6 2 1 5 4 1 1 1 7             0000000
 7 1 1 6 7 1 6 2 6 7 6 6 6  1 2 6 7 7 1 6 4 7 7 0 6 6                 0000000
 6 210 51412 5 711 8 2 2 2  8 3 71314 212 61314 61212                 0000000
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10 1 7 2 0 0 6 0 4 1 0 0  0 0 010001                                   0000000
10 0 0 .70 0 0 1600 1600 2650 4100  1450 0 0 0  0                     0000000
10 39 15 26  8  88 33 12  9 21 19 34 25  0  0 34 25  67  53 27 19      0000000
10  8.24 19.74  8.58 34.26   .00 20.82 33.18 45.71   .00 40.56         0000000
10 40.26 39.90 40.26   .00 20.82   .00   .00                           0000000
10  6.18 19.74   .00 39.97   .00   .00 33.18 39.18   .00   .00         0000000
40.26   .00 40.26 32.95 13.88   .00   .00                             0000000
 36.56  25.92 105.03 106.69 227.51 166.53    .00    .00 227.51 227.51  0000000
369.10 299.14 181.80 127.35 59 3 1 2 4 1 3 1                          0000000
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 7 3 2 7 7 1 7 6 6 6 7 7 7 0 0 0 0 0 0 0 0 0 0 0 0 0                  0000000
 2 2 2 21413 7121212 7 7 7 9  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0          0000000
14 8 41414 2141313131213 11  0 0 0 0 0 0 0 0 0 0 0 0 0 0            0000000
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11  2 21 2 4 13 2 6  250 1  1 1 21 2 4 12 3 5 1100 1000    3 3 1000000100000000
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11 0 1 .81 0 1 1200 1300 1550 2300   750 1 0 0  0                     0000000
11 51 16 37 11 115 34  9  8 22  8 16  5  0  0 16  5  47  21 10  2      0000000
11 12.36  3.29  8.58 28.55 15.00 24.29 11.06 19.59 18.54   .00         0000000
11 20.13 19.95 20.13   .00  6.94   .00   .00                           0000000
11 12.36  3.29  4.29  5.71 15.00 10.41  5.53   .00 18.54   .00         0000000
13.42   .00   .00   .00   .00   .00   .00                             0000000
 24.23  19.94 106.85  36.65 105.28  31.96    .00    .00 105.28 105.28  0000000
236.36  88.55  67.15  13.42 48 4 1 2 3 2 4 0                          0000000
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12 58 14 40 12 124 44 12  5 30 15  0 21  0  0  0 21  42  41  0 15        0000000
12 12.36 19.74   .00 34.26 30.00 20.82 33.18   .00   .00   .00          0000000
12   .00   .00   .00   .00   .00   .00   .00                            0000000
12 10.30   .00   .00 34.26 15.00  6.94 22.12   .00 37.08 40.56          0000000
20.13 19.95 20.13   .00   .00   .00   .00                               0000000
 32.10  10.30 151.80  78.32    .00 137.85    .00    .00    .00    .00   0000000
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 2 2 9 21412 21111 7 6 5 5 14 9 610 8 710 314121211111                  0000000
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13 0 0 .71 0 0 1600 1200 1600 2600  1000 0 0 0  0                       0000000
13 53 21 44 12 130 54  8  4 11  6  0  0  0  0  0  0  19  10  0  0       0000000
13  8.24 13.16   .00   .00 10.00 10.41 16.59   .00   .00   .00          0000000
13   .00   .00   .00   .00   .00   .00   .00                            0000000
13  8.24   .00   .00   .00 10.00   .00  5.53   .00   .00   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                              0000000
 21.40   8.24  53.77  32.30    .00    .00    .00    .00    .00    .00   0000000
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14 0 0 .43 0 0 1200 1300 3000 2500  -500 1 0 0  0                       0000000
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14  6.18   .00   .00   .00   .00  3.47   .00   .00   .00   .00          0000000
14   .00   .00   .00   .00   .00   .00   .00                            0000000
14  2.06   .00   .00  5.71   .00  3.47   .00   .00   .00   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                              0000000
  6.18   2.06   9.06   9.18    .00    .00    .00    .00    .00    .00   0000000
 15.24  11.24    .00    .00 57 3 4 2 1 2 1 1                            0000000
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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                    0000000
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15 47 18 30  7 102 13 16 13 13 26  1 21  0  1  1 22  30  61  1 10         0000000
15 12.36 19.74 17.16 22.84 10.00  6.94 11.06   .00   .00   .00            0000000
15   .00  6.65   .00   .00   .00   .00   .00                              0000000
15 12.36  9.87 17.16 34.26 30.00  6.94 33.18 39.18 37.08 20.28            0000000
13.42   .00  6.71 13.18  6.94  6.94   .00                                 0000000
 49.26  39.39  67.61 137.92   6.65 136.79    .00   6.94   6.65   6.65     0000000
123.52 321.04   6.65  67.47 55 1 2 3 4 2 3 0                             0000000
1 1 2 3 2 2 1 1 7 1 7 2 1                                                 0000000
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16 1 0 .80 0 1 1500  800 1000 2300  1300 3 2 4  6                        0000000
16 28  4 10  2  44 00  6  1 30 22 13 31  0  0 13 31  49  54  6 21         0000000
16  2.06  6.58 12.87 34.26 30.00 20.82 33.18 39.18  6.18 13.52            0000000
16 20.13   .00  6.71   .00   .00   .00   .00                              0000000
16  2.06   .00   .00 34.26 15.00  3.47 33.18 26.12 37.08 13.52            0000000
40.26 19.95 26.84 19.77 20.82   .00   .00                                 0000000
 21.51   2.06 151.80 119.45  85.72 204.36    .00    .00  85.72  85.72    0000000
259.03 325.87  40.36 141.16 47 1 2 4 3 1 4 1                             0000000
1 2 3 2 6 6 2 2 5 6 6 5 5                                                 0000000
11717624252123000000000000000000000000000000000000000000               0000000
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 1 1 7 1 7 6 2 4 2 5 2 1 2 3 0 0 0 0 0 0 0 0 0 0 0 0 0                   0000000
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17 1 1 1.0 0 2 1300 1200 1200 2800  1600 1 3 1  4                        0000000
17 39 14 27  6  86 24 10  2 23 21  0 30  0  1  0 31  33  54  0 19         0000000
17 10.30  9.87  8.58 34.26  5.00 20.82 33.18   .00   .00   .00            0000000
17   .00   .00   .00   .00   .00   .00   .00                              0000000
17  2.06   .00  4.29 34.26 25.00  6.94 33.18 39.18 37.08 20.28            0000000
40.26 19.95 20.13 19.77   .00  6.94   .00                                 0000000
 28.75   6.35 115.62 110.56    .00 196.65    .00   6.94    .00    .00     0000000
144.37 320.50    .00 127.33 43 3 1 2 4 1 3 0                             0000000
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18 1 1 1.0 0 2 1200  900  900 2400  1500 3 1 1  2                   0000000
18 28  3  9  3  43 00  7  8 15 11  0 27  0  6  0 33  22  52  0 23   0000000
18  6.18  9.87  4.29 17.13   .00 20.82 11.06   .00   .00   .00      0000000
18   .00   .00   .00   .00   .00   .00   .00                        0000000
18  2.06  9.87 17.16 22.84   .00   .00 27.65 39.18 24.72  6.76      0000000
40.26 39.90 13.42   .00 13.88 41.64   .00                           0000000
 20.34  29.09  71.37  61.67    .00 178.12    .00  41.64    .00    .00  0000000
 91.71 310.52    .00 155.86 57 4 1 2 3 2 4 0                        0000000
3 1 6   5 5 1 7 6 1 4 2 2                                           0000000
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 4 2   2 611 21014 7 3 2 2 1414  1114 214 81414131314               0000000
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19 5   7 0 0 0 0 0 0 0 0 30 1 000101                                0000000
19 1 1 .66 0 2 1200 1000 1460 2100   640 3 2 2  4                   0000000
19 23  7  4  3  37 00 10 11 12 28  2 48  1  5  3 53  25  92  3 41   0000000
19 12.36   .00 17.16   .00   .00 20.82 33.18   .00   .00   .00      0000000
19   .00   .00  6.71  6.59   .00  6.94   .00                        0000000
19   .00 19.74 21.45 34.26 30.00 13.88 33.18 39.18 37.08 40.56      0000000
40.26 39.90 40.26 39.54 41.64 34.70   .00                           0000000
 29.52  41.19  54.00 144.86  13.30 318.42   6.94  34.70  20.24  20.24  0000000
103.76 539.17  20.24 276.86 38 1 3 2 4 3 4 0                        0000000
2 2 2 1 1 7 2 1 3 1   7 7                                           0000000
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29  3 27 2 4 12 1 6    0 1  8 1 24 2 1 14 1 4  500 1100   59 4 000010001000000 1
29 3 7 6 1 0 0 0 0 1 0 0 14 5 000001                                0000000
29 1 1 1.0 0 2 1400 1200 1200 1900   700 2 1 1  2                   0000000
29 26  8 29 11  74 25  7  0 24 23  0 44  0  0  0 44  31  67  0 37   0000000
29  6.18  3.29 12.87 34.26 10.00 24.29 33.18   .00   .00   .00      0000000
```

```
29    .00    .00    .00    .00    .00    .00    .00                                0000000
29    .00    .00    .00 39.97    .00  6.94 38.71    .00 43.26 47.32                 0000000
40.26 39.90 46.97 39.54 34.70    .00    .00                                         0000000
 22.34    .00 118.50 124.75    .00 291.95    .00    .00    .00    .00              0000000
140.84 416.70    .00 248.69 52 1 2 3 4 3 4 1                                        0000000
1 1 2 1 7 7 1 1 1 7   2 4                                                           0000000
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 7 6 4 7 7 1 7 4 6 7 7 7 7  7 6 1 7 6 1 7 6 6 7 7 7 7                               0000000
 3 2 2 2 913 2 2 2   2 2 2 1412 51413 214101214141414                               0000000
20   2 23 2 1 13 3 5  400 1  3 0 22 2 4 12 3 5  800 0000   22 1 000000000000001
20 6 6 0 0 5 6 2 2 1 1 0  0 0 000100                                               0000000
20 0 0 .67 0 0 1200 1300 1700 2000   300 0 0 0  0                                   0000000
20 55 14 40 10 119 44 12  6 18 19  3 12  0  0  3 12  33  37  0  3                   0000000
20 12.36 19.74    .00 17.13 15.00 20.82    .00 19.59    .00    .00                  0000000
20    .00    .00    .00    .00    .00    .00    .00                                 0000000
20 12.36    .00    .00 17.13 20.00 10.41 27.65 19.59 37.08 20.28                    0000000
   .00    .00    .00    .00    .00    .00    .00                                    0000000
 32.10  12.36  86.49  97.55  19.59  76.95    .00    .00  19.59  19.59               0000000
138.18 186.86    .00  20.28 52 1 4 3 2 1 2 0                                        0000000
6 1 3 6 1 4 5 6 3 2 7 5 2                                                           0000000
11414724575227000000000000000000000000000000000000000                               0000000
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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                  0000000
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 3 2 6 2 813 4 6101010 7 4 1410 914 7 414131211121411                               0000000
21   1 28 2 4 13 3 6 1000 1 10 0 33 2 4 15 3 2 1700 0000    0 0 000000000000000
21 2 2 0 0 1 1 2 2 1 0 0  0 0 000001                                                0000000
21 0 0 .63 0 0 1500 1300 2300 3200   900 0 0 0  0                                   0000000
21 45 10 31  8  94 22  8  7  9 13  1  1  0  0  1  1  18  21  0  0                   0000000
21 12.36  6.58    .00 17.13 20.00    .00    .00    .00  6.18    .00                 0000000
21    .00    .00    .00    .00    .00    .00    .00                                 0000000
21 12.36  3.29    .00 11.42 25.00    .00    .00    .00  6.18    .00                 0000000
   .00    .00    .00    .00    .00    .00    .00                                    0000000
 18.94  15.65  48.31  69.96   6.18   6.18    .00    .00   6.18   6.18               0000000
 73.43  91.79    .00    .00 60 1 2 3 4 3 4 1                                        0000000
0 0 0 0 0 0 0 0 0 0 0 1 1                                                           0000000
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 2 2 2 41412 212 814 3 9 2 1413 214 7 212 8 91310 911                               0000000
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22  1 33 2 1 12 1 6     0 1   9 0 34 2 4 12 3 6 1600 0100     0 0 0000000000000000
22 7 7 0 1 1 1 1 1 2 1 0   0 0 001001                                          0000000
22 1 0 1.0 0 1 1200 1200 1200 2800  1600 1 0 0  0                              0000000
22 44 19 40 11 114 14 19 19 10 13  3  1  0  0  3  1  32  33  0  0              0000000
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22   .00   .00   .00   .00   .00   .00   .00                                    0000000
22 14.42 19.74 25.74   .00 25.00  6.94   .00   .00  6.18   .00                 0000000
  .00   .00   .00   .00   .00   .00   .00                                      0000000
 59.90  59.90  42.06  65.48  18.54   6.18    .00    .00  18.54  18.54   0000000
120.50 131.56    .00    .00 56 1 3 4 2 1 3                                    0000000
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 7 1 4 7 1 7 7 1 7 6 7 7 7 0 0 0 0 0 0 0 0 0 0 0 0 0                           0000000
 7 1 7 7 1 1 7 1 7 4 1 7 7 0 0 0 0 0 0 0 0 0 0 0 0 0                           0000000
 8 8 814 8 214 2141111 8 8 9  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                    0000000
14 21114 2 814 21410 81414  0 0 0 0 0 0 0 0 0 0 0 0 0 0                       0000000
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23  1 27 2 4 16 2 2     0 1   4 0 39 2 4 16 3 6 4000 0000     0 0 0000000000000000
23 7 2 0 0 1 3 1 2 1 0 0   0 0 100000                                          0000000
23 0 0 1.0 0 0 1600 1600 1600 5600  4000 0 0 0  0                              0000000
23 51 15 40 10 116 54 10  6 10 12  0  0  0  0  0  0  20  18  0  0              0000000
23 10.30  9.87  8.58 17.13 10.00  6.94 16.59   .00   .00   .00                 0000000
23   .00   .00   .00   .00   .00   .00   .00                                    0000000
23 10.30  3.29   .00 17.13  5.00   .00 27.65   .00   .00   .00                 0000000
  .00   .00   .00   .00   .00   .00   .00                                      0000000
 28.75  13.59  50.66  66.55    .00    .00    .00    .00    .00    .00    0000000
 79.41  80.14    .00    .00 52 3 2 1 4 4 2 1                                  0000000
0 0 0 0 0 0 0 0 0 0 1 1                                                        0000000
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24 7 6 1 1 0 0 0 0 1 0 1   5 1 001010                                          0000000
24 1 1 1.0 0 2  800 1200 1200 1800   600 2 1 0  1                              0000000
24 26 13 22  6  67 13 16  6 12 25  0 27  0  0  0 27  28  58  0 15             0000000
24 12.36 19.74 17.16 28.55   .00 20.82   .00   .00   .00   .00                 0000000
24   .00   .00   .00   .00   .00   .00   .00                                    0000000
24 12.36   .00   .00 34.26 30.00  6.94 33.18 39.18 37.08 33.80                 0000000
26.84 26.60   .00   .00 13.88   .00   .00                                      0000000
 49.26  12.36  54.96 132.33    .00 177.38    .00    .00    .00    .00    0000000
104.22 322.07    .00 101.12 40 1 4 3 2 1 2 0                                   0000000
2 1 2 1 7 6 2 1 1 4 6 4 2                                                      0000000
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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                       0000000
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 6 2 4 81411 511 512 5 7 4 1311131413 312 31414131313                   0000000
25  3 26 1 4 13 0 0  410 1  8 0 26 1 4  9 1 4    0 1300   68 7 0100110100000001
25 1 7 5 0 1 9 1 3 0 0 0 15 1 000101                                    0000000
25 1 1 .00 0 2  900 1300 1710  900  -810 4 3 0  3                       0000000
25 20  2  7  5  34 00  6  0 31 22 22 36  4  4 26 40  63  62 16 28       0000000
25 12.36   .00   .00 34.26 35.00 20.82 33.18 39.18 24.72 13.52          0000000
25 33.55   .00 20.13 13.18   .00 27.76   .00                           0000000
25   .00   .00   .00 39.97 30.00  6.94 38.71 45.71 30.90   .00          0000000
40.26 39.90 40.26   .00 41.64 27.76   .00                             0000000
 12.36    .00 156.80 115.62 144.28 238.67  27.76  27.76 172.04 172.04   0000000
341.20 382.05 108.14 189.82 59 3 2 1 4 4 1 0                           0000000
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26  3 69 2 4  8 1 5  342 1 11 1 71 2 4  7 1 4  360 0000  131 7 0000011100000001
26 1 7 6 0 0 0 0 0 0 0 0  1 2 000011                                    0000000
26 1 0 .51 0 1  700  800 1142 1060   -82 0 2 0  2                       0000000
26  0  8 27  8  43 31  0  6  9 20  0 22  0  0  0 22   9  48  0 12       0000000
26   .00   .00   .00   .00 15.00   .00   .00   .00   .00   .00          0000000
26   .00   .00   .00   .00   .00   .00   .00                           0000000
26   .00 19.74   .00 39.97   .00   .00 38.71 39.18 24.72   .00          0000000
40.26   .00 40.26   .00   .00   .00   .00                             0000000
   .00  19.74  48.54 112.22    .00 144.42    .00    .00    .00    .00   0000000
 48.54 276.38    .00  80.52 40 3 4 1 2 3 2 1                           0000000
1 1 1 1 7 1 1 1 1 1   7 7                                              0000000
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 7 7 1 7 1 1 7 1 1 7 7 7 7 0 0 0 0 0 0 0 0 0 0 0 0 0                   0000000
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27 1 6 9   0 0 0 0 0 0 1 19 1 010001                                    0000000
27 1 1 .00 0 2 1500 1200 1800 1500  -300 3 0 0  0                      0000000
27 10  4  8  5  27 00 12  3 26 26  3 30  0  0  3 30  41  59  0 20       0000000
27 12.36 19.74   .00 39.97 35.00 20.82 33.18   .00 18.54   .00         0000000
27   .00   .00   .00   .00   .00   .00   .00                           0000000
27  6.18   .00   .00 39.97 30.00   .00 38.71 32.65 30.90 27.04         0000000
26.84 26.60 20.13 13.18 20.82   .00   .00                             0000000
 32.10   6.18 128.97 142.22  18.54 198.16    .00    .00  18.54  18.54   0000000
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1 1 7 1 4 7 1 1 7 1 4 7 7                                              0000000
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28 48 17 41  7 113 44 11 12 23 13 12 10  0  0 12 10  46  35  4  5       0000000
28 12.36 16.45   .00 34.26 25.00 20.82 11.06 13.06 37.08  6.76          0000000
28 20.13   .00   .00   .00   .00   .00   .00                            0000000
28 12.36 19.74   .00 28.55 15.00   .00   .00 13.06 18.54 20.28          0000000
13.42   .00   .00   .00   .00   .00   .00                               0000000
 28.81  32.10 113.50  71.50  77.03  65.30    .00    .00  77.03  77.03   0000000
219.34 168.90  26.89  33.70 48 3 2 1 4 4 1 1                            0000000
3 1 6 2 6 5 3 5 5 3 3 2 4                                               0000000
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30 43 15 36 11 105 33 12  7 14 14  5  9  0  0  5  9  31  30  3  4       0000000
30 10.30 19.74  4.29 22.84   .00 20.82 16.59 13.06   .00   .00          0000000
30 20.13   .00   .00   .00   .00   .00   .00                            0000000
30 10.30  3.29  4.29 34.26   .00   .00 22.12  6.53 24.72   .00          0000000
26.84   .00   .00   .00   .00   .00   .00                               0000000
 34.33  17.88  65.84  78.74  33.19  58.09    .00    .00  33.19  33.19   0000000
133.36 154.71  20.13  26.84 47 3 4 1 2 3 2 0                            0000000
2 1 2 1 4 6 2 1 7 2 3 2 1                                               0000000
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31 17 10 14  9  50 00 12  6 22 26 18 27  1  0 19 27  53  59 11 19       0000000
31 14.42 16.45   .00 28.55 15.00 20.82 27.65 26.12 24.72 20.28          0000000
31 13.42 13.30   .00 13.18  6.94  6.94   .00                            0000000
31  4.12  9.87  4.29 34.26 30.00  6.94 33.18 19.59 30.90 13.52          0000000
```

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33.55 26.60 13.42 13.18 27.76   .00   .00                                    0000000
 30.87  18.28 108.79 137.92 117.96 178.52   6.94    .00 124.90 124.90        0000000
264.56 334.72  74.06 128.03 37 1 3 4 2 1 3 0                                 0000000
2 2 7 6 4 2 6 4 5 5 5 2 2                                                    0000000
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32 12.36   .00   .00 34.26 25.00   .00 33.18   .00   .00   .00               0000000
20.13   .00   .00   .00   .00   .00   .00                                    0000000
 32.10  12.36  90.26 109.21  45.02  20.13    .00    .00  45.02  45.02        0000000
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3 2 5 2 7 6 2 1 5 2 7 1 1                                                    0000000
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33 40 17 35  7  99 24 11 12 21 16 20 12  0  0 20 12  52  40 12  5            0000000
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33 33.55 13.30 13.42   .00   .00   .00   .00                                 0000000
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20.13 13.30   .00   .00   .00   .00   .00                                    0000000
 28.81  38.10 109.27  83.14 131.39  78.09    .00    .00 131.39 131.39        0000000
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5 3 3 4 5 3 4 2 6 1 4 1 6                                                    0000000
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34 1 1 1 0 1 9 1 4 1 0 0  0 0 000001                                         0000000
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34   .00   .00   .00   .00   .00   .00   .00                            0000000
34 12.36  9.87   .00 17.13 10.00   .00 16.59   .00   .00   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                               0000000
 23.46  22.23  64.66  60.49   .00   .00   .00   .00   .00   .00         0000000
 88.12  82.72   .00   .00 60 1 3 2 4 3 2 0                              0000000
0 0 0 0 0 0 0 0 0 0 2 2                                                 0000000
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35 1 6 1 0 2 3 1 1 0 0 0  0 0 001010                                    0000000
35 0 1 .50 0 1 1200 1300 2100 2000  -100 1 0 1  1                       0000000
35 38 13 33  8  92 25 11  6 16 18 10 12  0  0 10 12  37  36  6  3       0000000
35 12.36 16.45   .00 34.26 10.00 10.41 27.65 19.59  6.18 13.52          0000000
35  6.71 19.95   .00   .00   .00   .00   .00                            0000000
35  6.18  9.87   .00 34.26   .00   .00 33.18 39.18 18.54   .00          0000000
20.13   .00   .00   .00   .00   .00   .00                               0000000
 28.81  16.05  82.32 100.98  65.95  77.85   .00   .00  65.95  65.95     0000000
177.08 194.88  40.18  20.13 56 1 3 2 4 3 2 0                            0000000
2 2 6 2 7 7 1 2 1 5 4 4 5                                               0000000
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36 26  5 16  7  54 10 17  9 24 22  3 30  0  1  3 31  44  62  3 24       0000000
36 10.30 19.74 25.74 34.26 15.00 20.82 33.18   .00   .00  6.76          0000000
36 13.42   .00   .00   .00   .00   .00   .00                            0000000
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40.26 39.90 26.84 13.18 27.76  6.94   .00                               0000000
 55.78  31.92 120.03 121.69  20.18 199.71   .00  6.94  20.18  20.18     0000000
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 0 0 0 0 0 0 0 0 0 0 0 0 0 1 7 1 7 7 1 7 1 7 7 7 7 7                    0000000
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37 7 7 5 1 0 9 0 4 0 0 0  2 1 001000                                       0000000
37 1 1 1.0 0 2 1100 1100 1100 1465   365 1 2 1  3                          0000000
37 32  8 14  5  59 10  4  5 16 18  1 41  0  3  1 44  21  67  1 33          0000000
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37  6.71   .00   .00   .00   .00   .00   .00                               0000000
37  4.12  6.58  4.29 34.26  5.00  6.94 33.18 39.18 30.90 40.56              0000000
26.84 46.55 26.84 19.77 41.64 20.82   .00                                  0000000
 11.93  14.99  81.49  96.15   6.71 272.28    .00  20.82   6.71   6.71      0000000
100.13 404.24   6.71 223.02 25 1 3 2 4 3 2 1                               0000000
1 1 1 1 7 7 1 4 4 7 7 7 7                                                  0000000
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38 52 15 43 11 121 45  9  6 11  6  0  0  0  0  0  0  20  12  0  0          0000000
38 12.36  9.87   .00   .00 15.00 20.82 11.06   .00   .00   .00              0000000
38   .00   .00   .00   .00   .00   .00   .00                               0000000
38 12.36   .00   .00   .00   .00   .00   .00   .00   .00   .00              0000000
  .00   .00   .00   .00   .00   .00   .00                                  0000000
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 69.11  45.90   .00   .00 43 4 2 1 3 1 4 0                                 0000000
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39  1 23 2 1 15 3 6  600 0  1 0 31 2 4 16 3 6  700 0000    0 0 0000000000000000
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39 0 0 .54 0 0 1600 1500 2100 2300   200 0 0 0  0                          0000000
39 48 21 39  8 116 34  6  6 10  6  0  3  0  0  0  3  16  15  0  0          0000000
39 12.36   .00   .00 28.55   .00   .00 27.65   .00   .00   .00              0000000
39   .00   .00   .00   .00   .00   .00   .00                               0000000
39 12.36   .00   .00   .00 15.00   .00   .00   .00 18.54   .00              0000000
  .00   .00   .00   .00   .00   .00   .00                                  0000000
 12.36  12.36  56.20  31.77   .00  18.54   .00   .00   .00   .00            0000000
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40 2 3 0 0 1 1 1 1 1 0 0  0 0 000101                                   0000000
40 0 0 .20 0 0 1600 1300 2100 1800  -300 2 0 0  0                      0000000
40 49 16 36 12 113 44  9 11  8  3  1  1  0  0  1  1  18  15  0  0      0000000
40 12.36  9.87   .00 17.13   .00 10.41   .00   .00  6.18   .00         0000000
40   .00   .00   .00   .00   .00   .00   .00                           0000000
40 12.36 16.45   .00  5.71   .00   .00   .00   .00  6.18   .00         0000000
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 22.23  28.81  38.72  16.89   6.18   6.18    .00    .00   6.18   6.18  0000000
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41 26.84   .00 26.84   .00   .00   .00   .00                           0000000
41   .00 13.16   .00 34.26 25.00   .00 33.18 39.18 37.08 40.56         0000000
40.26 39.90 40.26 32.95 41.64 41.64   .00                              0000000
 50.26  13.16  68.30 125.98  53.68 311.83    .00  41.64  53.68  53.68  0000000
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42  3 20 5 1 10 1 6  150 1  4 0 24 5 1 12 3 6  950 2000   40 6 0010110001101002
42 1 7 2 0 0 8 0 2 0 0 0  1 1 010100                                   0000000
42 1 1 .86 0 2 1200 1000 1150 2150  1000 2 3 3  6                      0000000
42 34  6 24  5  69 20 12  8 25 25 30 47  1  4 31 51  68  84 20 39      0000000
42 10.30 13.16 12.87 34.26  5.00 20.82 33.18 32.65 37.08 27.04         0000000
42 33.55 26.60 13.42 26.36   .00  6.94   .00                           0000000
42  4.12 16.45  4.29 34.26 25.00  6.94 33.18 39.18 37.08 40.56         0000000
40.26 39.90 40.26 32.95 41.64 20.82  7.00                              0000000
 36.33  24.86 126.80 132.92 196.70 311.83   6.94  27.82 203.64 203.64  0000000
```

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366.77 497.43 133.91 263.39 61 1 3 4 2 4 3 0                                    0000000
3 1 3 1 2 1 1 2 2 2   7 5                                                       0000000
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43 1 7 4 0 0 9 0 4 0 0 0  3 1 001000                                            0000000
43 0 0 1.0 0 0  600 1200 1200 1067  -133 0 2 2  4                              0000000
43  5  3  4  0  12 00  6  0 22 13  2 48  0  4  2 52  30  65  2 40              0000000
43   .00 19.74   .00 22.84   .00 20.82 33.18   .00   .00   .00                  0000000
43   .00   .00 13.42   .00   .00   .00   .00                                    0000000
43   .00   .00   .00 39.97   .00   .00 33.18 39.18 37.08 40.56                  0000000
40.26 39.90 40.26 39.54 41.64 20.82  7.00                                       0000000
 19.74    .00 110.38  73.15  13.42 318.42    .00  27.82  13.42  13.42          0000000
143.54 419.39  13.42 269.98 69 3 2 4 1 2 1 1                                   0000000
1 1 5 1 7 6 1     1 2 7 7                                                       0000000
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44 7 1 2 1 1 3 1 3 0 0 0  0 0 000101                                            0000000
44 1 1 .90 0 2 1200 1200 1400 2944  1544 2 2 1  3                              0000000
44 44 12 34 11 101 24  6  6 15 12  0  7  0  0  0  7  21  25  0  4              0000000
44  8.24  6.58   .00 22.84   .00 13.88 16.59   .00   .00   .00                  0000000
44   .00   .00   .00   .00   .00   .00   .00                                    0000000
44  4.12 13.16   .00 22.84   .00  6.94 11.06   .00 18.54   .00                  0000000
13.42 13.30   .00   .00   .00   .00   .00                                       0000000
 14.82  17.28  75.67  63.20    .00  45.26    .00    .00    .00    .00           0000000
 90.49 125.74    .00  26.72 26 1 3 4 2 1 3 0                                    0000000
4 1 5 2 4 5 2 6 2 3 7 2 2                                                       0000000
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45  1 33 1 4 16 1 6  150 1  1 0 29 1 4 14 3 4  500 1000    0 0 0000000000000000
45 1   0 0 0 1 0 2 0 0 0  0 0 010110                                           0000000
45 1 1 .77 0 2 1400 1600 1750 1900   150 1 0 0  0                              0000000
45 29  5 12  5  51 11  8 10 11  9  6  3  1  0  7  3  26  22  6  0              0000000
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45  8.24  9.87  4.29 17.13 10.00  3.47  5.53  6.53   .00   .00          0000000
45  6.71   .00 20.13  6.59   .00  6.94   .00                           0000000
45  8.24 13.16  8.58   .00 30.00   .00   .00   .00 18.54   .00          0000000
  .00   .00   .00   .00   .00   .00   .00                             0000000
 22.40  29.98  58.49  46.77  39.96  18.54   6.94   .00  46.90  46.90   0000000
127.79  95.29  40.37   .00 42 4 2 1 3 3 1 0                           0000000
0 0 0 0 0 0 0 0 0 0 0 1 1                                             0000000
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777777777777000000000000000000000000000000000000000                  0000000
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46 57 21 46 11 135 65 12 13 24  9 13  0  0  0 13  0  49  22  4  0     0000000
46 12.36  9.87 12.87 34.26 10.00 17.35 33.18 39.18 18.54   .00         0000000
46 20.13   .00  6.71   .00   .00   .00   .00                          0000000
46 12.36 16.45  8.58 11.42   .00  6.94 11.06   .00   .00   .00         0000000
  .00   .00   .00   .00   .00   .00   .00                             0000000
 35.10  37.39 122.74  46.19  84.56   .00   .00   .00  84.56  84.56   0000000
242.40  83.58  26.84   .00 45 2 4 1 3 4 2 0                           0000000
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47 20  5  9  6  40 10  6  0 34 14 23 26  0  0 23 26  63  40 11 20      0000000
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46.97 39.90 13.42   .00 34.70   .00   .00                             0000000
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341.41 250.75  73.49 134.99 65 4 2 1 3 3 1 1                          0000000
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 2 213 21214 2     5131414 6  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0           0000000
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40.26 39.90 40.26   .00 41.64   .00   .00                                 0000000
 42.19    .00  82.55  72.97  43.26 219.78    .00    .00  43.26  43.26    0000000
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 2 2 3 2 4 7 2 2 211 2 2 2  8121414 7 714 71414 71414                    0000000
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49 1 1 1.0 0 2 1100 1100 1100 2000   900 5 1 0  1                         0000000
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40.26 19.95   .00   .00 20.82 13.88   .00                                 0000000
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13.42  6.65  6.71 13.18  6.94   .00   .00                                 0000000
 12.76  36.90  80.42  97.67   6.71  93.41    .00    .00   6.71   6.71    0000000
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1 2 7 1 7 7 1 1 3 1 4 4 2                                                 0000000
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52 0 0 .71 0 0 1400 1400 2000 2900   900 1 0 0  0                                                  0000000
52 47 16 37  7 107 44 12 10 20 18  8  4  0  0  8  4  40  32  2  3                                  0000000
52 12.36 19.74   .00 34.26 10.00 13.88 22.12 19.59 18.54  6.76                                     0000000
52   .00  6.65   .00   .00   .00   .00   .00                                                       0000000
52 12.36 13.16   .00 28.55 20.00  6.94 22.12  6.53   .00   .00                                     0000000
  .00  6.65   .00 13.18   .00   .00   .00                                                          0000000
 32.10  25.52 102.62  94.38  51.54  26.36    .00    .00  51.54  51.54                              0000000
186.26 146.26  13.41  19.83 61 4 2 1 3 1 4 0                                                       0000000
7 4 7 5 5 6 3 6 6 7 6 1 1                                                                          0000000
3111571271427 000000000000000000000000000000000000000000                                            0000000
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 3 1 1 1 5 7 1 2 7 1 4 2 7   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                          0000000
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53 4 7 1 1 7 1 2 1 2 0 1  0 0 100000                                                               0000000
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53 53 18 34  8 113 24 12 10 22 17  4 10  0  0  4 10  38  37  1  6                                  0000000
53 12.36 16.45  4.29 22.84 15.00 20.82 16.59  6.53 12.36  6.76                                     0000000
53   .00   .00   .00   .00   .00   .00   .00                                                       0000000
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 6.71 13.30  6.71   .00   .00   .00   .00                                                          0000000
 33.10  30.98 108.79  89.08  25.65  65.31    .00    .00  25.65  25.65                              0000000
167.54 185.37   6.76  40.24 48 3 1 4 2 4 3 1                                                       0000000
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54 0 0 .47 0 0 1500 1600 2940 2700  -240 0 0 0  0                                                  0000000
54 47 15 43 11 116 54 14 11 14  4  0  0  0  0  0  0  28  15  0  0                                  0000000
54 12.36 19.74  8.58   .00  5.00 20.82 16.59   .00   .00   .00                                     0000000
54   .00   .00   .00   .00   .00   .00   .00                                                       0000000
54 12.36 13.16  4.29   .00   .00   .00 16.59   .00   .00   .00                                     0000000
  .00   .00   .00   .00   .00   .00   .00                                                          0000000
 40.68  29.81  64.77  22.18    .00    .00    .00    .00    .00    .00                              0000000
105.45  51.99    .00    .00 55 2 3 1 4 4 2 0                                                       0000000
0 0 0 0 0 0 0 0 0 0 0 1 1                                                                          0000000
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55 40 15 23 11  89 23 12  3 20 16 14 23  2  3 16 26  48  45 13 19             0000000
55  8.24  6.58 25.74 17.13 20.00 20.82 11.06 19.59   .00   .00                 0000000
55 20.13 13.30 20.13  6.59 13.88  6.94  7.00                                   0000000
55   .00  9.87   .00 22.84 10.00 10.41 22.12 26.12 18.54 20.28                 0000000
20.13 13.30 20.13 13.18 20.82 13.88  7.00                                     0000000
 40.56   9.87  96.96  82.14  93.62 152.50  13.94  20.88 107.56 107.56         0000000
245.08 265.39  87.97 128.72 43 3 2 4 1 2 1 1                                 0000000
2 1 1 2 7 2 1 7 1 6 5 6 6                                                     0000000
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56 50 18 37 10 115 33 12 12 10  3  0  0  0  0  0  0  22  15  0  0             0000000
56 12.36 19.74   .00 22.84   .00 10.41 16.59   .00   .00   .00                 0000000
56   .00   .00   .00   .00   .00   .00   .00                                   0000000
56 12.36 19.74   .00   .00   .00   .00  5.53   .00   .00   .00                 0000000
  .00   .00   .00   .00   .00   .00   .00                                     0000000
 32.10  32.10  49.84  16.71   .00   .00   .00   .00   .00   .00   .00         0000000
 81.94  48.81   .00   .00 65 2 3 1 4 1 3 1                                    0000000
0 0 0 0 0 0 0 0 0 0 0 0 1 1                                                   0000000
2121 6165622170000000000000000000000000000000000000000000                    0000000
000000000000000000000000000011116716361117000000000000                       0000000
44556553676650000000000000000000000000000000000000000                        0000000
000000000000000000000000007555325457666000000000000                          0000000
 2 1 2 1   6 1 6 5 6 2 2 1 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0                     0000000
 1 1 1 1 6 7 1 6 3 6 1 1 1 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0                     0000000
 4 4 5 5 6 5 5 3 6 7 6 6 5 0 0 0 0 0 0 0 0 0 0 0 0 0                         0000000
 7 5 5 5 3 2 5 4 5 7 6 6 6 0 0 0 0 0 0 0 0 0 0 0 0 0                         0000000
 3 2 3 2  13 212 812 3 3 214  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                  0000000
11 91010 9 710 71114121211  0 0 0 0 0 0 0 0 0 0 0 0 0 0                       0000000
 3 2 3 2  13 212 812 3 3 2 11 91010 9 710 71114121211                         0000000
57  2 26 2 4 12 3 6 1200 0  1 1 22 2 4  8 3 5  600 1100   9 3 1000000100000001
57 4 7 0 1 3 8 1 1 1 0 0  0 0 000101                                          0000000
57 0 1 .33 0 1  800 1200 2400 1400 -1000 2 0 0  0                             0000000
57 47 15 33 10 105 53  4 12 15  7  9  8  0  0  9  8  28  27  7  4             0000000
57   .00 13.16   .00 22.84 15.00  6.94 11.06  6.53  6.18   .00                 0000000
57 20.13 13.30 13.42   .00   .00   .00   .00                                   0000000
```

```
57 12.36 19.74   .00   .00   .00 13.88   .00   .00 24.72   .00          0000000
 6.71 19.95   .00   .00   .00   .00   .00                               0000000
 13.16  32.10  78.20  30.65  59.56  51.38    .00    .00  59.56  59.56   0000000
150.92 114.13  46.85  26.66 47 4 2 1 3 3 1 0                           0000000
4 1 7 5 1 5 1 6 5 4 2 3 2                                              0000000
00000000000000000000000000000011577114717130000000000000000          0000000
21357613521413000000000000000000000000000000000000000000000          0000000
00000000000000000000000000077511544576130000000000000                0000000
74524345376330000000000000000000000000000000000000000                0000000
 2 1 3 5 7 6 1 3 5 2 1 4 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0              0000000
 1 1 5 7 7 7 1 1 4 7 1 7 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0              0000000
 7 4 5 2 4 3 4 5 3 7 6 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0                  0000000
 7 7 5 1 1 5 4 4 5 7 6 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0                  0000000
 3 2 8121413 2 4 9 9 211 2 6  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0           0000000
141110 3 5 8 8 9 81412 4 6  0 0 0 0 0 0 0 0 0 0 0 0 0                 0000000
 3 2 8121413 2 4 9 9 211 2 141110 3 5 8 8 9 81412 4 6                 0000000
```

Appendix K

Computer Printout of Formatting and Sample Analysis

for the Structured Attribution Measure

```
**** TSO FOREGROUND HARDCOPY ****
DSNAME=WPS2KGS.DEBRAB.SPSSXCOR.DATA

//*DDD JOB (0129,WPS2,5,15),DEBRA,NOTIFY=WPS2KGS                          00000010
/*ROUTE  PRINT U4                                                         00000020
//  EXEC SPSSX,REGION=768K                                                00000030
//CHANGED DD DSN=WPS2KGS.DEBRA.CHANGED.DATA,DISP=SHR                      00000040
//SYSIN DD *                                                            00000050
TITLE DISSERTATION---SPSSX DATA TRANSFORMATIONS AND OUTFILE              00000060
DATA LIST FILE=CHANGED,FIXED RECORDS=22                                  00000070
    /SUBJ 1-2 GROUP 4-5 PAGE 7-8 PETH 10                                 00000080
     PCHURCH 12 PED 14-15 PWORK 17 PJOB 19                               00000090
     PINCOM 21-24 KINDRE 26 YEARRE 28-29 POREL 31                        00000100
     MAGE 33-34 METH 36 MCHURCH 38 MED 40-41                             00000110
     MWORK 43 MJOB 45 MINCOM 47-50 KIDPS KDLAT KADOL K18UP 52-55         00000120
     MOFITE 57-60 UFFITE 62 NHLPN HLPFR HLPLN HLPTXN HLPSN HLPSSN        00000130
     HLPDRN NHLPP HLPFRP HLPLP HLPTXP HLPSP HLPSSP HLPDRP 64-77          00000140
     NJURY 79                                                            00000150
    /SUBJ2 1-2 FFITE 4 MFITE 6 XLEFT 8 SEXABU 10 PETOHA 12 METHOHA 14    00000160
     PETHOX 16 METOHX 18 TX 20 TXHOS 22 XSUICD 24 DAYSS 26-27 XS 29      00000170
     NOCHNG LEAVEH CHNGH CHNGS CHNGR OTHER 31-36                         00000180
    /SUBJ3 1-2 WODEP 4 KIDDEP 6 FINDEX 8-10 FINDEP 12 DINDEX 14          00000190
     MEDADJ 16-19 FEDADJ 21-24 FSTAT 26-29 MSTAT 31-34                   00000200
     SINDEX 36-40 NOKIDS 42 CONHLN 44 CONHLP 46 CONHTO 48-49             00000210
    /SUBJ4 1-2 DASCON 4-5 DASCOH 7-8 DASSAT 10-11                        00000220
     DASAFF 13-14                                                        00000230
     DASTOT 16-18 DASGLB DASFTR 20-21 CTFSRE 23-24 CTMSRE 26-27          00000240
     CTFSVE 29-30 CTMSVE 32-33 CTFSVI 35-36 CTMSVI 38-39 CTFSSE 41-42    00000250
     CTMSSE 44-45 CTFSAB 47-48 CTMSAB 50-51 CTFSTO 53-55 CTMSTO 57-59    00000260
     CTFSDI 61-62 CTMSDI 64-65                                           00000270
    /SUBJ5 1-2 CTSWFD 4-8 CTSWFI 10-14 CTSWFH 16-20 CTSWFS 22-26         00000280
     CTSWFO 28-32 CTSWFC 34-38 CTSWFY 40-44 CTSWFE 46-50 CTSWFT 52-56    00000290
     CTSWFA 58-62                                                        00000300
    /SUBJ6 1-2 CTSWFP 4-8 CTSWFL 10-14 CTSWFJ 16-20 CTSWFW 22-26         00000310
     CTSWFB 28-32 CTSWFK 34-38 CTSWFG 40-44                              00000320
    /SUBJ7 1-2 CTSWMD 4-8 CTSWMI 10-14 CTSWMH 16-20 CTSWMS 22-26         00000330
     CTSWMO 28-32 CTSWMC 34-38 CTSWMY 40-44 CTSWME 46-50 CTSWMT 52-56    00000340
     CTSWMA 58-62                                                        00000350
    /CTSWMP 1-5 CTSWML 7-11 CTSWMJ 13-17 CTSWMW 19-23 CTSWMB 25-29       00000360
     CTSWMK 31-35 CTSWMG 37-41                                           00000370
    /CTFWRE 1-6 CTMWRE 8-13 CTFWVE 15-20 CTMWVE 22-27 CTFWVI 29-34       00000380
     CTMWVI 36-41 CTFWSE 43-48                                           00000390
     CTMWSE 50-55 CTFWAB 57-62 CTMWAB 64-69                              00000400
    /CTFWTO 1-6 CTMWTO 8-13 CTFWDI 15-20 CTMWDI 22-27                    00000410
     LOCUST 29-30 STORY1 32 STORY2 34 STORY3 36                          00000420
     STORY4 38 STORYN1 40 STORYN2 42 FM1ST 44                            00000430
    /SCAUSE 1 SINTE 3 SCHOI 5 SRESP 7 SJUDG 9 SEXCU 11 SBLAM 13          00000440
     SCHAR 15 SBEH 17 SFUTR 19 SGLOBL 21 SIMS 23 FREQS 25                00000450
    /FCAUSST1 FINTEST1 FCHOIST1 FRESPST1 FJUDGST1 FEXCUST1 FBLAMST1      00000460
     FCHARST1 FBEHST1 FFUTRST1 FMORCST1 FMORRST1 FMORBST1 FDONWST1       00000470
     FCAUSPH1 FINTEPH1 FCHOIPH1 FRESPPH1 FJUDGPH1 FEXCUPH1 FBLAMPH1      00000480
     FCHARPH1 FBEHPH1 FFUTRPH1 FMORCPH1 FMORRPH1 FMORBPH1 FDONWPH1       00000490
     FCAUSJO1 FINTEJO1 FCHOIJO1 FRESPJO1 FJUDGJO1 FEXCUJO1 FBLAMJO1      00000500
     FCHARJO1 FBEHJO1 FFUTRJO1 FMORCJO1 FMORRJO1 FMORBJO1 FDONWJO1       00000510
     FCAUSSH1 FINTESH1 FCHOISH1 FRESPSH1 FJUDGSH1 FEXCUSH1 FBLAMSH1      00000520
     FCHARSH1 FBEHSH1 FFUTRSH1 FMORCSH1 FMORRSH1 FMORBSH1 FDONWSH1       00000530
     1-56                                                                00000540
    /FCAUSST2 FINTEST2 FCHOIST2 FRESPST2 FJUDGST2 FEXCUST2 FBLAMST2      00000550
     FCHARST2 FBEHST2 FFUTRST2 FMORCST2 FMORRST2 FMORBST2 FDONWST2       00000560
     FCAUSPH2 FINTEPH2 FCHOIPH2 FRESPPH2 FJUDGPH2 FEXCUPH2 FBLAMPH2      00000570
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```
     FCHARPH2 FBEHPH2 FFUTRPH2 FMORCPH2 FMORRPH2 FMORBPH2 FDONWPH2      00000580
     FCAUSJ02 FINTEJ02 FCHOIJ02 FRESPJ02 FJUDGJ02 FEXCUJ02 FBLAMJ02    00000590
     FCHARJ02 FBEHJ02 FFUTRJ02 FMORCJ02 FMORRJ02 FMORBJ02 FDONWJ02     00000600
     FCAUSSH2 FINTESH2 FCHOISH2 FRESPSH2 FJUDGSH2 FEXCUSH2 FBLAMSH2    00000610
     FCHARSH2 FBEHSH2 FFUTRSH2 FMORCSH2 FMORRSH2 FMORBSH2 FDONWSH2     00000620
     1-56                                                              00000630
    /MCAUSST1 MINTEST1 MCHOIST1 MRESPST1 MJUDGST1 MEXCUST1 MBLAMST1    00000640
     MCHARST1 MBEHST1 MFUTRST1 MMORCST1 MMORRST1 MMORBST1              00000650
     MCAUSPH1 MINTEPH1 MCHOIPH1 MRESPPH1 MJUDGPH1 MEXCUPH1 MBLAMPH1    00000660
     MCHARPH1 MBEHPH1 MFUTRPH1 MMORCPH1 MMORRPH1 MMORBPH1              00000670
     MCAUSJ01 MINTEJ01 MCHOIJ01 MRESPJ01 MJUDGJ01 MEXCUJ01 MBLAMJ01    00000680
     MCHARJ01 MBEHJ01 MFUTRJ01 MMORCJ01 MMORRJ01 MMORBJ01              00000690
     MCAUSSH1 MINTESH1 MCHOISH1 MRESPSH1 MJUDGSH1 MEXCUSH1 MBLAMSH1    00000700
     MCHARSH1 MBEHSH1 MFUTRSH1 MMORCSH1 MMORRSH1 MMORBSH1              00000710
     1-52                                                              00000720
    /MCAUSST2 MINTEST2 MCHOIST2 MRESPST2 MJUDGST2 MEXCUST2 MBLAMST2    00000730
     MCHARST2 MBEHST2 MFUTRST2 MMORCST2 MMORRST2 MMORBST2              00000740
     MCAUSPH2 MINTEPH2 MCHOIPH2 MRESPPH2 MJUDGPH2 MEXCUPH2 MBLAMPH2    00000750
     MCHARPH2 MBEHPH2 MFUTRPH2 MMORCPH2 MMORRPH2 MMORBPH2              00000760
     MCAUSJ02 MINTEJ02 MCHOIJ02 MRESPJ02 MJUDGJ02 MEXCUJ02 MBLAMJ02    00000770
     MCHARJ02 MBEHJ02 MFUTRJ02 MMORCJ02 MMORRJ02 MMORBJ02              00000780
     MCAUSSH2 MINTESH2 MCHOISH2 MRESPSH2 MJUDGSH2 MEXCUSH2 MBLAMSH2    00000790
     MCHARSH2 MBEHSH2 MFUTRSH2 MMORCSH2 MMORRSH2 MMORBSH2              00000800
     1-52                                                              00000810
    /FCAUSSTO FINTESTO FCHOISTO FRESPSTO FJUDGSTO FEXCUSTO FBLAMSTO    00000820
     FCHARSTO FBEHSTO FFUTRSTO FMORCSTO FMORRSTO FMORBSTO FDONWSTO     00000830
     FCAUSPHO FINTEPHO FCHOIPHO FRESPPHO FJUDGPHO FEXCUPHO FBLAMPHO    00000840
     FCHARPHO FBEHPHO FFUTRPHO FMORCPHO FMORRPHO FMORBPHO FDONWPHO     00000850
     1-56                                                              00000860
    /FCAUSJOB FINTEJOB FCHOIJOB FRESPJOB FJUDGJOB FEXCUJOB FBLAMJOB    00000870
     FCHARJOB FBEHJOB FFUTRJOB FMORCJOB FMORRJOB FMORBJOB FDONWJOB     00000880
     FCAUSSHI FINTESHI FCHOISHI FRESPSHI FJUDGSHI FEXCUSHI FBLAMSHI    00000890
     FCHARSHI FBEHSHI FFUTRSHI FMORCSHI FMORRSHI FMORBSHI FDONWSHI     00000900
     1-56                                                              00000910
    /MCAUSSTO MINTESTO MCHOISTO MRESPSTO MJUDGSTO MEXCUSTO MBLAMSTO    00000920
     MCHARSTO MBEHSTO MFUTRSTO MMORCSTO MMORRSTO MMORBSTO              00000930
     MCAUSPHO MINTEPHO MCHOIPHO MRESPPHO MJUDGPHO MEXCUPHO MBLAMPHO    00000940
     MCHARPHO MBEHPHO MFUTRPHO MMORCPHO MMORRPHO MMORBPHO 1-52         00000950
    /MCAUSJOB MINTEJOB MCHOIJOB MRESPJOB MJUDGJOB MEXCUJOB MBLAMJOB    00000960
     MCHARJOB MBEHJOB MFUTRJOB MMORCJOB MMORRJOB MMORBJOB              00000970
     MCAUSSHI MINTESHI MCHOISHI MRESPSHI MJUDGSHI MEXCUSHI MBLAMSHI    00000980
     MCHARSHI MBEHSHI MFUTRSHI MMORCSHI MMORRSHI MMORBSHI              00000990
     1-52                                                              00001000
    /FCAUSPL FINTEPL FCHOIPL FRESPPL FJUDGPL FEXCUPL FBLAMPL           00001010
     FCHARPL FBEHPL FFUTRPL FMORCPL FMORRPL FMORBPL FDONWPL 1-28       00001020
     FCAUSNPL FINTENPL FCHOINPL FRESPNPL FJUDGNPL FEXCUNPL FBLAMNPL    00001030
     FCHARNPL FBEHNPL FFUTRNPL FMORCNPL FMORRNPL FMORBNPL FDONWNPL     00001040
     30-57                                                             00001050
    /MCAUSPL MINTEPL MCHOIPL MRESPPL MJUDGPL MEXCUPL MBLAMPL           00001060
     MCHARPL MBEHPL MFUTRPL MMORCPL MMORRPL MMORBPL 1-26               00001070
     MCAUSNPL MINTENPL MCHOINPL MRESPNPL MJUDGNPL MEXCUNPL MBLAMNPL    00001080
     MCHARNPL MBEHNPL MFUTRNPL MMORCNPL MMORRNPL MMORBNPL 28-53        00001090
    /FCAUSE FINTENT FCHOICE FRESP FJUDGE FEXCUSE FBLAME FCHARAC        00001100
     FBEHAVE FFUTURE FMOREC FMORER FMOREB 1-26                         00001110
     MCAUSE MINTENT MCHOICE MRESP MJUDGE MEXCUSE MBLAME MCHARAC        00001120
     MBEHAVE MFUTURE MMOREC MMORER MMOREB 28-53                        00001130
PEARSON CORR  MOFITE UFFITE CTMSDI WITH MBLAME MMOREB                  00001140
STATISTICS ALL                                                         00001150
OPTIONS 3                                                              00001160
FINISH                                                                 00001170
//                                                                     00001180
```

Appendix L

Computer Printout of Raw Data

from the Unsolicited Measure

```
**** TSO FOREGROUND HARDCOPY ****
DSNAME=WPS2KGS.DEBRA.USCHNGED.DATA

35 2  2 1 1 0 0 1 0 0 0 0 0 1 0  2 0 2 0 0 0 0 0 0 0 0 0 0
35 2  3 1 2 0 1 0 0 0 0 1 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 061
35 3  2 1 1 0 0 1 0 0 0 0 1 0 0  2 1 1 0 1 0 0 0 1 0 0 0 0
35 4  3 1 2 0 1 0 0 0 0 1 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 042
35 5  2 0 2 0 0 0 0 0 0 0 0 0 0  2 1 1 0 1 0 0 0 1 0 0 0 0
35 6  3 2 1 0 2 0 0 0 2 0 0 0 0  1 1 0 0 0 0 0 1 0 0 0 0 051
 6 8 8 2 3 4 6 5 4 0 0 0 1 2 3 1 1 0 0 0 0 0 0 0 1
 0 1 3 1 1 0 0 1 0 1 0 0 0 0 0
16 5.31 3.60 2.40 0.00 1.20 2.40 1.20 1.20
12 2  1 1 0 0 1 0 0 0 0 1 0 0 0  1 1 0 0 1 0 0 0 0 1 0 0 0
12 2  2 1 1 0 1 0 0 0 0 1 0 0 0  1 1 0 0 1 0 0 0 0 1 0 0 071
12 3  1 0 1 0 0 0 0 0 0 0 0 0 0  1 1 0 0 1 0 0 0 0 1 0 0 0
12 4  2 1 1 0 1 0 0 0 1 0 0 0 0  2 1 1 0 1 0 0 0 1 0 0 0 061
12 5  1 1 0 0 1 0 0 0 0 1 0 0 0  1 1 0 0 1 0 0 0 0 1 0 0 0
12 6  2 1 1 0 1 0 0 0 0 1 0 0 0  1 1 0 0 1 0 0 0 0 1 0 0 071
 5 6 5 4 3 4 1 3 1 0 0 0 4 3 3 0 0 0 0 0 0 0 0 0
 0 2 0 4 1 4 0 0 0 0 0 0 0 0 0
11 7.64 71.0 0.00 0.00 2.29 5.71 0.00 0.00
50 3  1 0 1 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0
50 2  2 1 1 0 1 0 0 0 0 0 0 0 1  1 0 1 0 0 0 0 0 0 0 0 0 051
50 3  1 0 1 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0
50 4  2 0 2 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 021
50 5  1 0 1 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0
50 6  2 0 2 0 0 0 0 0 0 0 0 0 0  1 1 0 0 0 1 0 0 0 0 1 0 012
 5 5 5 1 0 1 4 5 4 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 1 0 0 0 1 0 0
10 1.10 11.0 0.00 0.00 0.00 0.00 0.00 0.00
42 3  2 1 1 0 1 0 0 0 1 0 0 0 0  3 2 1 0 2 0 0 0 0 2 0 0 0
42 2  2 1 1 0 1 0 0 0 0 1 0 0 0  5 0 5 0 0 0 0 0 0 0 0 0 061
42 3  2 1 1 0 1 0 0 0 1 0 0 0 0  3 1 2 0 1 0 0 0 0 1 0 0 0
42 4  3 3 0 0 1 1 1 0 0 1 1 0 0  5 1 4 0 1 0 0 0 0 1 0 0 072
42 5  2 2 0 0 1 1 0 0 1 0 1 0 0  3 3 0 0 3 0 0 0 2 1 0 0 0
42 6  2 1 1 0 1 0 0 0 0 1 0 0 0  5 1 4 0 1 0 0 0 1 0 0 0 062
121312 4 6 7 8 7 5 0 0 0 4 4 9 0 1 1 0 1 0 0 0 0
 1 1 4 3 3 2 0 1 1 0 0 0 0 0 0
2510.40 8.80 1.10 1.10 2.20 6.60 1.10 0.00
15 3  5 4 1 0 2 2 0 0 1 1 2 0 0  3 3 0 0 2 1 0 0 1 1 0 1 0
15 2  3 3 0 0 3 0 0 0 1 2 0 0 0  3 2 1 0 1 1 0 0 0 1 1 0 072
15 3  5 3 2 0 2 1 0 0 1 1 1 0 0  3 2 1 0 1 1 0 0 0 1 1 0 0
15 4  3 2 1 0 1 1 0 0 1 0 1 0 0  3 3 0 0 1 0 2 0 0 1 0 0 066
15 5  6 6 0 0 2 4 0 0 1 1 2 2 0  3 1 2 0 1 0 0 0 1 0 0 0 0
15 6  3 2 1 0 1 1 0 0 1 0 1 0 0  3 3 0 0 1 1 1 0 1 0 1 0 045
141415121012 2 4 3 0 0 0 8 5 4 4 3 6 0 2 1 0 0 0
 3 2 4 5 3 1 3 3 4 1 0 2 0 0 0
2822.7913.59 7.32 2.09 5.23 8.36 6.27 1.05
55 2  1 0 1 0 0 0 0 0 0 0 0 0 0  2 1 1 0 1 0 0 0 0 1 0 0 0
55 2  1 0 1 0 0 0 0 0 0 0 0 0 0  1 1 0 0 0 0 1 0 0 0 0 0 061
55 3  1 0 1 0 0 0 0 0 0 0 0 0 0  2 0 2 0 0 0 0 0 0 0 0 0 0
55 4  1 0 1 0 0 0 0 0 0 0 0 0 0  1 1 0 0 0 0 1 0 0 0 0 0 053
55 5  1 1 0 0 1 0 0 0 0 1 0 0 0  3 3 0 0 2 1 0 0 2 0 1 0 0
55 6  1 0 1 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 063
 5 5 6 2 1 4 3 4 2 0 0 0 1 0 4 0 0 1 1 1 0 0 0 0
 0 0 2 1 0 1 0 0 1 0 0 0 0 0 0
10 3.30 1.33 0.00 2.67 0.00 1.33 0.00 0.00
57 2  1 0 1 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 0
57 2  3 1 2 0 1 0 0 0 1 0 0 0 0  3 1 2 0 1 0 0 0 1 0 0 0 071
57 3  1 0 1 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 0
```

```
57 4  2 0 2 0 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 032
57 5  1 0 1 0 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 0
57 6  2 2 0 0 0 2 0 0 0 0 2 0 0  3 1 2 0 0 1 0 0 0 0 1 0 014
 8 5 7 2 0 3 6 5 4 0 0 0 2 0 2 0 0 3 0 0 0 0 0 0 0
 2 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0
13 2.15 21.0 0.00 0.00 21.0 0.00 0.00 0.00
14 1  2 1 1 0 1 0 0 0 0 1 0 0 0  3 3 0 0 1 1 1 0 0 0 1 0 1
14 2  4 1 3 0 0 1 0 0 0 0 1 0 0  4 3 0 1 2 0 1 0 1 1 0 0 072
14 3  3 1 2 0 1 0 0 0 0 1 0 0 0  4 1 3 0 0 0 1 0 0 0 0 0 0
14 4  4 1 3 0 0 1 0 0 0 0 1 0 0  3 2 1 0 1 0 1 0 0 1 0 0 065
14 5  3 0 3 0 0 0 0 0 0 0 0 0 0  4 0 4 0 0 0 0 0 0 0 0 0 0
14 6  4 1 3 0 0 1 0 0 0 0 1 0 0  3 2 1 0 2 0 0 0 1 1 0 0 032
131414 8 5 3 4 911 1 0 0 4 2 1 2 1 1 2 2 0 0 0 0
 1 0 1 2 2 1 2 1 1 0 0 0 1 0 0
2713.48 6.46 3.23 4.31 1.08 4.31 3.23 0.00
 9 1  5 0 5 0 0 0 0 0 0 0 0 0 0  4 1 3 0 0 1 0 0 0 0 0 0 1
 9 2  7 4 3 0 1 3 0 0 1 0 0 3 0  5 0 5 0 0 0 0 0 0 0 0 0 026
 9 3  5 2 3 0 0 2 0 0 0 0 1 1 0  4 2 2 0 0 2 0 0 0 0 2 0 0
 9 4  6 2 4 0 1 1 0 0 1 0 0 1 0  5 1 4 0 0 0 1 0 0 0 0 0 047
 9 5  5 0 5 0 0 0 0 0 0 0 0 0 0  4 2 2 0 0 2 0 0 0 0 1 0 1
 9 6  7 5 2 0 1 4 0 0 1 0 1 3 0  5 0 5 0 0 0 0 0 0 0 0 0 025
212021 5 7 7161314 0 0 0 1 1 6 4 5 6 0 1 0 0 0 0
 1 1 1 0 0 0 0 3 2 3 2 3 1 0 1
4112.29 2.17 9.75 1.08 2.17 0.00 3.25 5.42
53 2  3 2 1 0 0 0 2 0 0 0 0 0 0  4 0 4 0 0 0 0 0 0 0 0 0 0
53 2  3 0 3 0 0 0 0 0 0 0 0 0 0  3 1 2 0 0 0 1 0 0 0 0 0 054
53 3  3 1 2 0 0 1 0 0 0 0 1 0 0  4 0 4 0 0 0 0 0 0 0 0 0 0
53 4  3 0 3 0 0 0 0 0 0 0 0 0 0  3 1 2 0 0 1 0 0 0 0 1 0 056
53 5  3 3 0 0 0 0 3 0 0 0 0 3 0  4 0 4 0 0 0 0 0 0 0 0 0 0
53 6  3 1 2 0 0 0 1 0 0 0 0 0 0  3 1 2 0 0 1 0 0 0 0 1 0 025
131313 3 2 51011 8 0 0 0 0 0 2 0 2 4 3 0 1 0 0 0
 0 0 0 0 0 0 0 2 4 0 0 0 0 0 0 0
26 5.19 0.00 2.40 3.60 0.00 0.00 2.40 0.00
13 1  2 1 1 0 0 1 0 0 0 0 1 0 0  2 1 1 0 1 0 0 0 0 1 0 0 0
13 2  1 0 1 0 0 0 0 0 0 0 0 0 0  1 1 0 0 1 0 0 0 1 0 0 0 072
13 3  2 0 2 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 0
13 4  1 0 1 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 043
13 5  1 1 0 0 0 1 0 0 0 0 1 0 0  1 0 1 0 0 0 0 0 0 0 0 0 0
13 6  1 0 1 0 0 0 0 0 0 0 0 0 0  1 1 0 0 0 1 0 0 0 0 1 0 015
 6 5 4 3 0 2 3 5 2 0 0 0 2 0 0 1 0 2 0 0 0 0 0 0 0
 1 0 0 1 0 0 1 0 2 0 0 0 0 0 0 0
11 3.27 2.67 1.33 0.00 1.33 1.33 1.33 0.00
 5 1  2 1 1 0 0 1 0 0 0 0 0 0 1  3 0 3 0 0 0 0 0 0 0 0 0 0 0
 5 2  3 1 2 0 1 0 0 0 1 0 0 0 0  4 1 3 0 0 1 0 0 0 0 1 0 055
 5 3  2 1 1 0 1 0 0 0 1 0 0 0 0  3 0 3 0 0 0 0 0 0 0 0 0 0
 5 4  3 1 2 0 0 0 1 0 0 0 0 0 0  4 1 3 0 0 1 0 0 0 0 1 0 055
 5 5  2 2 1 0 1 1 0 0 1 0 1 0 0  3 0 3 0 0 0 0 0 0 0 0 0 0
 5 6  3 2 1 0 1 1 0 0 1 0 1 0 0  4 2 2 0 0 2 0 0 0 0 2 0 035
121212 3 3 6 9 9 7 0 0 0 1 1 4 2 1 4 0 1 0 0 0 0
 1 1 2 0 0 0 1 1 4 0 0 0 1 0 0
24 6.25 2.33 3.50 1.17 2.33 0.00 2.33 0.00
41 3  2 2 0 0 1 1 0 0 1 0 1 0 0  1 1 0 0 1 0 0 0 1 0 0 0 0
41 2  3 2 1 0 2 0 0 0 2 0 0 0 0  2 2 0 0 2 0 0 0 2 0 0 0 072
41 3  2 1 1 0 0 1 0 0 0 0 1 0 0  1 0 1 0 0 0 0 0 0 0 0 0 0
41 4  2 1 1 0 1 0 0 0 1 0 0 0 0  2 1 1 0 1 0 0 0 1 0 0 0 071
41 5  2 2 0 0 1 1 0 0 1 0 1 0 0  1 1 0 0 1 0 0 0 1 0 0 0 0
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2511.44 9.82 2.18 0.00 5.45 4.36 2.18 0.00
39 1  4 1 3 0 1 0 0 0 1 0 0 0 0  4 1 3 0 0 1 0 0 0 0 1 0 0
39 2  2 1 1 0 1 0 0 0 1 0 0 0 0  4 1 3 0 0 1 0 0 1 0 0 0 062
39 3  4 1 3 0 1 0 0 0 1 0 0 0 0  4 0 4 0 0 0 0 0 0 0 0 0 0
39 4  3 0 3 0 0 0 0 0 0 0 0 0 0  4 0 4 0 0 0 0 0 0 0 0 0 051
39 5  4 3 1 0 2 1 0 0 2 0 1 0 0  4 2 2 0 0 2 0 0 0 0 2 0 0
39 6  3 3 0 0 1 2 0 0 1 0 2 0 0  4 3 1 0 1 2 0 0 1 0 2 0 057
141515 4 1111014 4 0 0 0 2 1 4 2 0 7 0 0 0 0 0 0
 3 1 4 0 0 0 1 0 7 0 0 0 0 0 0
29 5.17 3.60 2.40 0.00 4.80 0.00 1.20 0.00
45 1  2 1 1 0 1 0 0 0 1 0 0 0 0  3 3 0 0 3 0 0 0 0 3 0 0 0
45 2  2 1 1 0 0 1 0 0 0 0 1 0 0  4 3 1 0 3 0 0 0 2 1 0 0 062
45 3  2 0 2 0 0 0 0 0 0 0 0 0 0  2 2 0 0 2 0 0 0 0 2 0 0 0
45 4  2 1 1 0 0 1 0 0 0 0 1 0 0  2 1 1 0 1 0 0 0 0 1 0 0 073
45 5  2 0 2 0 0 0 0 0 0 0 0 0 0  2 2 0 2 0 0 0 0 0 2 0 0 0
45 6  2 1 1 0 0 1 0 0 0 0 1 0 0  4 2 2 0 2 0 0 0 1 1 0 0 072
11 810 8 4 5 3 4 5 0 0 2 7 3 2 1  1 1 0 0 0 0 0 0
 3 0 1 4 3 3 1 1 1 0 0 0 0 0 0
1912.6310.83 2.17 0.00 3.25 7.58 2.17 0.00
 8 2  5 0 5 0 0 0 0 0 0 0 0 0 0  4 3 1 0 3 0 0 0 1 2 0 0 0
 8 2  6 1 5 0 1 0 0 0 1 0 0 0 0  3 1 2 0 1 0 0 0 0 1 0 0 061
 8 3  5 0 5 0 0 0 0 0 0 0 0 0 0  4 3 1 0 3 0 0 0 1 2 0 0 0
 8 4  6 0 6 0 0 0 0 0 0 0 0 0 0  3 1 2 0 1 0 0 0 0 1 0 0 063
 8 5  5 4 1 0 0 4 0 0 0 0 1 3 0  4 3 1 0 3 0 0 0 2 1 0 0 0
 8 6  6 1 5 0 0 1 0 0 0 0 1 0 0  3 1 2 0 1 0 0 0 1 0 0 0 045
181818 5 4 91314 9 0 0 0 5 4 5 0 0 5 0 0 0 0 0 0
 2 1 3 3 3 1 0 0 2 0 0 3 0 0 0
36 9.25 91.0 0.00 0.00 3.33 6.67 0.00 0.00
20 2  5 5 0 0 3 2 0 0 1 2 2 0 0  5 2 3 0 2 0 0 0 1 1 0 0 0
20 2  3 1 2 0 1 0 0 0 1 0 0 0 0  3 0 3 0 0 0 0 0 0 0 0 0 062
20 3  3 2 1 0 2 0 0 0 1 1 0 0 0  5 1 4 0 1 0 0 0 0 1 0 0 0
20 4  4 2 2 0 1 1 0 0 0 1 1 0 0  3 0 3 0 0 0 0 0 0 0 0 0 063
20 5  3 3 0 0 2 1 0 0 1 1 1 0 0  5 3 2 0 2 1 0 0 1 1 1 0 0
20 6  4 4 0 0 1 2 0 1 1 0 1 1 0  3 2 1 0 0 2 0 0 0 0 2 0 056
161515 8 512 810 3 0 0 0 6 4 6 2 1 6 0 0 0 0 0 1
 3 1 3 3 3 2 2 1 5 0 0 1 0 0 0
3113.4210.77 3.23 0.00 4.31 6.46 3.23 0.00
```

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37 3  2 2 0 0 2 0 0 0 2 0 0 0 0  2 2 0 0 2 0 0 0 2 0 0 0 0
37 2  2 1 1 0 1 0 0 0 1 0 0 0 0  2 2 0 0 2 0 0 0 2 0 0 0 071
37 3  2 1 1 0 1 0 0 0 1 0 0 0 0  2 0 2 0 0 0 0 0 0 0 0 0 0
37 4  2 0 2 0 0 0 0 0 0 0 0 0 0  2 0 2 0 0 0 0 0 0 0 0 0 072
37 5  2 2 0 0 2 0 0 0 2 0 0 0 0  2 2 0 0 2 0 0 0 2 0 0 0 0
37 6  2 1 1 0 1 0 0 0 1 0 0 0 0  2 2 0 0 2 0 0 0 2 0 0 0 071
 8 8 8 7 1 7 1 7 1 0 0 0 7 1 5 0 0 0 0 0 0 0 0 0
 7 1 7 0 0 0 0 0 0 0 0 0 0 0 0
16 8.50 81.0 0.00 0.00 81.0 0.00 0.00 0.00
56 1  3 2 1 0 2 0 0 0 0 0 0 0 2  6 1 5 0 1 0 0 0 0 1 0 0 0
56 2  3 1 2 0 1 0 0 0 0 1 0 0 0  4 2 2 0 0 2 0 0 0 0 0 2 053
56 3  3 1 2 0 1 0 0 0 1 0 0 0 0  6 1 5 0 1 0 0 0 0 1 0 0 0
56 4  3 0 3 0 0 0 0 0 0 0 0 0 0  4 2 2 0 0 2 0 0 0 0 1 1 066
56 5  3 1 2 0 0 1 0 0 0 0 1 0 0  6 1 5 0 1 0 0 0 0 1 0 0 0
56 6  3 2 1 0 0 2 0 0 0 0 2 0 0  4 2 2 0 0 2 0 0 0 0 0 1 1 026
161616 6 4 6101210 0 0 0 4 2 3 2 2 5 0 0 0 0 0 0
 0 1 0 2 1 1 0 1 4 2 1 1 2 0 0
3210.31 6.60 4.40 0.00 1.10 3.30 1.10 3.30
33 2  4 1 3 0 1 0 0 0 0 1 0 0 0  3 2 1 0 1 0 1 0 0 1 0 0 0
33 2  3 3 0 0 1 2 0 0 1 0 2 0 0  3 2 1 0 1 1 0 0 0 1 0 1 071
33 3  4 1 3 0 1 0 0 0 0 1 0 0 0  3 2 1 0 1 0 1 0 0 1 0 0 0
33 4  3 2 1 0 1 1 0 0 1 0 1 0 0  3 1 2 0 0 1 0 0 0 0 0 1 065
33 5  4 1 2 1 0 1 0 0 0 0 1 0 0  3 2 1 0 1 0 1 0 0 1 0 0 0
33 6  3 3 0 0 1 2 0 0 1 0 2 0 0  3 2 1 0 1 1 0 0 1 0 1 0 0
131313 8 6 8 5 7 4 0 0 1 4 3 3 3 2 4 1 1 1 0 0 0
 1 1 2 3 2 1 2 1 4 1 1 0 0 0 0
2614.54 7.50 5.36 2.14 2.14 5.36 3.21 2.14
29 3  4 2 2 0 2 0 0 0 1 1 0 0 0  2 2 0 0 2 0 0 0 0 2 0 0 0
29 2  2 2 0 0 2 0 0 0 0 2 0 0 0  2 2 0 0 2 0 0 0 0 2 0 0 071
29 3  4 1 3 0 1 0 0 0 0 1 0 0 0  2 2 0 0 2 0 0 0 0 2 0 0 0
29 4  2 2 0 0 2 0 0 0 0 2 0 0 0  2 2 0 0 2 0 0 0 0 2 0 0 071
29 5  4 2 2 0 2 0 0 0 0 2 0 0 0  2 2 0 0 2 0 0 0 0 2 0 0 0
29 6  2 2 0 0 2 0 0 0 1 1 0 0 0  2 2 0 0 2 0 0 0 0 2 0 0 071
101010 8 7 8 2 3 2 0 0 0 8 7 6 0 0 0 0 0 0 0 0 0
 1 0 1 7 7 7 0 0 0 0 0 0 0 0 0
2015.75151.0 0.00 0.00 1.0714.93 0.00 0.00
44 2  4 2 2 0 1 1 0 0 1 0 1 0 0  5 1 4 0 0 1 0 0 0 0 1 0 0
44 2  2 0 2 0 0 0 0 0 0 0 0 0 0  3 0 3 0 0 0 0 0 0 0 0 0 063
44 3  3 1 2 0 0 1 0 0 0 0 1 0 0  5 1 4 0 0 1 0 0 0 0 1 0 0
44 4  2 0 2 0 0 0 0 0 0 0 0 0 0  3 1 2 0 0 1 0 0 0 0 1 0 027
44 5  3 1 2 0 0 1 0 0 0 0 1 0 0  5 4 1 0 0 4 0 0 0 0 2 2 0
44 6  2 1 1 0 1 0 0 0 1 0 0 0 0  3 1 2 0 0 1 0 0 0 0 1 0 026
141313 3 3 71110 6 0 0 0 1 0 3 2 3 6 0 0 0 0 0 0
 1 0 1 0 0 0 2 3 4 0 0 2 0 0 0
27 6.22 1.17 5.83 0.00 1.17 0.00 5.83 0.00
 3 1  2 1 1 0 1 0 0 0 0 1 0 0 0  2 2 0 0 1 1 0 0 0 0 1 0 1
 3 2  2 2 0 0 1 1 0 0 0 1 1 0 0  2 2 0 0 0 2 0 0 0 0 2 0 045
 3 3  2 1 1 0 1 0 0 0 0 1 0 0 0  2 0 2 0 0 0 0 0 0 0 0 0 0
 3 4  2 1 1 0 1 0 0 0 0 1 0 0 0  2 1 1 0 0 1 0 0 0 0 1 0 043
 3 5  2 1 1 0 1 0 0 0 0 1 0 0 0  2 1 1 0 0 1 0 0 0 0 1 0 0
 3 6  2 2 0 0 1 1 0 0 0 1 1 0 0  2 2 0 0 0 2 0 0 0 0 2 0 036
 8 8 8 7 3 6 1 5 2 0 0 0 3 2 2 4 1 4 0 0 0 0 0 0 0
 0 0 1 2 2 1 4 1 4 0 0 0 1 0 0
1610.63 5.50 5.50 0.00 0.00 4.40 5.50 0.00
47 3  4 2 2 0 2 0 0 0 0 2 0 0 0  3 1 2 0 1 0 0 0 0 1 0 0 0
47 2  4 1 3 0 1 0 0 0 1 0 0 0 0  5 2 3 0 2 0 0 0 0 2 0 0 071
47 3  4 1 3 0 1 0 0 0 0 1 0 0 0  3 1 2 0 1 0 0 0 0 1 0 0 0
47 4  4 0 4 0 0 0 0 0 0 0 0 0 0  5 1 4 0 1 0 0 0 0 1 0 0 061
47 5  4 1 3 0 1 0 0 0 1 0 0 0 0  3 1 2 0 1 0 0 0 0 1 0 0 0
47 6  4 1 3 0 0 1 0 0 0 0 1 0 0  5 3 2 0 2 0 1 0 0 2 0 0 052
161616 6 3 6101310 0 0 0 6 3 4 0 0 1 0 0 1 0 0 0
```

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 1 0 1 5 3 3 0 0 1 0 0 0 0 0 0
32 9.28 91.0 0.00 0.00 1.11 8.89 0.00 0.00
30 2  3 2 1 0 2 0 0 0 2 0 0 0 0  4 2 2 0 1 1 0 0 1 0 1 0 0
30 2  3 2 1 0 2 0 0 0 2 0 0 0 0  2 0 2 0 0 0 0 0 0 0 0 0 0 072
30 3  3 1 2 0 1 0 0 0 1 0 0 0 0  4 0 4 0 0 0 0 0 0 0 0 0 0 0
30 4  3 2 1 0 2 0 0 0 1 1 0 0 0  2 0 2 0 0 0 0 0 0 0 0 0 0 053
30 5  3 2 1 0 2 0 0 0 1 0 0 0 1  4 2 2 0 1 1 0 0 1 0 1 0 0
30 6  3 2 1 0 1 1 0 0 0 1 1 0 0  2 0 2 0 0 0 0 0 0 0 0 0 0 063
121212 6 3 6 6 9 6 0 0 0 5 3 6 1 0 2 0 0 0 0 0 0
 5 2 2 0 1 1 1 0 2 0 0 0 0 0 1
24 9.38 8.89 1.11 0.00 7.78 1.11 1.11 0.00
36 3  2 1 1 0 1 0 0 0 1 0 0 0 0  2 1 1 0 1 0 0 0 1 0 0 0 0
36 2  2 0 2 0 0 0 0 0 0 0 0 0 0  1 1 0 0 1 0 0 0 1 0 0 0 061
36 3  2 0 2 0 0 0 0 0 0 0 0 0 0  2 1 1 0 0 0 1 0 0 0 0 0 0
36 4  2 0 2 0 0 0 0 0 0 0 0 0 0  1 0 1 0 0 0 0 0 0 0 0 0 051
36 5  2 1 1 0 1 0 0 0 1 0 0 0 0  2 1 1 0 0 0 1 0 0 0 0 0 0
36 6  2 2 0 0 0 2 0 0 0 0 2 0 0  1 0 1 0 0 0 0 0 0 0 0 0 023
 7 7 7 3 1 4 4 6 3 0 0 0 3 0 2 0 0 2 0 1 1 0 0 0
 3 0 1 0 0 0 0 0 2 0 0 0 0 0 0
14 4.29 3.75 0.00 1.25 3.75 0.00 0.00 0.00
```

Appendix M

Computer Printout of Formatting and Sample Analysis

for the Unsolicited Attribution Measure

```
**** TSO FOREGROUND HARDCOPY ****
DSNAME=WPS2KGS.DEBRAB.USSPSSX.DATA

//$DDD JOB (0129,WPS2,5,15),DEBRA,NOTIFY=WPS2KGS                                  00000010
/*ROUTE  PRINT U4                                                                 00000020
//  EXEC SPSSX,REGION=768K                                                        00000030
//UNSTRUC DD DSN=WPS2KGS.DEBRA.USCHNGED.DATA,DISP=SHR                             00000040
//SYSIN DD *                                                                    00000050
TITLE DISSERTATION---UNSTRUCTURED DATA SPSSX                                     00000060
DATA LIST FILE=UNSTRUC,FIXED RECORDS=9                                          00000070
    /SUBJ 1-2 GROUP 4 RE1L 6-7 AT1L 8-9 NAT1L 10-11 CD1L 12-13                  00000080
     MAT1L 14-15 FAT1L 16-17 SAT1L 18-19 CDP1L 20-21 BMAT1L 22-23               00000090
     CMAT1L 24-25 BFAT1L 26-27 CFAT1L 28-29 CDA1L 30-31                         00000100
     RE2L 33-34 AT2L 35-36 NAT2L 37-38 CD2L 39-40 MAT2L 41-42                   00000110
     FAT2L 43-44 SAT2L 45-46 CDP2L 47-48 BMAT2L 49-50 CMAT2L 51-52              00000120
     BFAT2L 53-54 CFAT2L 55-56 CDA2L 57-58                                      00000130
    /SUBJ2 1-2 REC2 4 RE3L 6-7 AT3L 8-9 NAT3L 10-11 CD3L 12-13                  00000140
     MAT3L 14-15 FAT3L 16-17 SAT3L 18-19 CDP3L 20-21 BMAT3L 22-23               00000150
     CMAT3L 24-25 BFAT3L 26-27 CFAT3L 28-29 CDA3L 30-31                         00000160
     RE4L 33-34 AT4L 35-36 NAT4L 37-38 CD4L 39-40 MAT4L 41-42                   00000170
     FAT4L 43-44 SAT4L 45-46 CDP4L 47-48 BMAT4L 49-50 CMAT4L 51-52              00000180
     BFAT4L 53-54 CFAT4L 55-56 CDA4L 57-58 MBLAMEL 59 FBLAMEL 60                00000190
    /SUBJ3 1-2 REC3 4 RE1M 6-7 AT1M 8-9 NAT1M 10-11 CD1M 12-13                  00000200
     MAT1M 14-15 FAT1M 16-17 SAT1M 18-19 CDP1M 20-21 BMAT1M 22-23               00000210
     CMAT1M 24-25 BFAT1M 26-27 CFAT1M 28-29 CDA1M 30-31                         00000220
     RE2M 33-34 AT2M 35-36 NAT2M 37-38 CD2M 39-40 MAT2M 41-42                   00000230
     FAT2M 43-44 SAT2M 45-46 CDP2M 47-48 BMAT2M 49-50 CMAT2M 51-52              00000240
     BFAT2M 53-54 CFAT2M 55-56 CDA2M 57-58                                      00000250
    /SUBJ4 1-2 REC4 4 RE3M 6-7 AT3M 8-9 NAT3M 10-11 CD3M 12-13                  00000260
     MAT3M 14-15 FAT3M 16-17 SAT3M 18-19 CDP3M 20-21 BMAT3M 22-23               00000270
     CMAT3M 24-25 BFAT3M 26-27 CFAT3M 28-29 CDA3M 30-31                         00000280
     RE4M 33-34 AT4M 35-36 NAT4M 37-38 CD4M 39-40 MAT4M 41-42                   00000290
     FAT4M 43-44 SAT4M 45-46 CDP4M 47-48 BMAT4M 49-50 CMAT4M 51-52              00000300
     BFAT4M 53-54 CFAT4M 55-56 CDA4M 57-58 MBLAMEM 59 FBLAMEM 60                00000310
    /SUBJ5 1-2 REC5 4 RE1F 6-7 AT1F 8-9 NAT1F 10-11 CD1F 12-13                  00000320
     MAT1F 14-15 FAT1F 16-17 SAT1F 18-19 CDP1F 20-21 BMAT1F 22-23               00000330
     CMAT1F 24-25 BFAT1F 26-27 CFAT1F 28-29 CDA1F 30-31                         00000340
     RE2F 33-34 AT2F 35-36 NAT2F 37-38 CD2F 39-40 MAT2F 41-42                   00000350
     FAT2F 43-44 SAT2F 45-46 CDP2F 47-48 BMAT2F 49-50 CMAT2F 51-52              00000360
     BFAT2F 53-54 CFAT2F 55-56 CDA2F 57-58                                      00000370
    /SUBJ6 1-2 REC6 4 RE3F 6-7 AT3F 8-9 NAT3F 10-11 CD3F 12-13                  00000380
     MAT3F 14-15 FAT3F 16-17 SAT3F 18-19 CDP3F 20-21 BMAT3F 22-23               00000390
     CMAT3F 24-25 BFAT3F 26-27 CFAT3F 28-29 CDA3F 30-31                         00000400
     RE4F 33-34 AT4F 35-36 NAT4F 37-38 CD4F 39-40 MAT4F 41-42                   00000410
     FAT4F 43-44 SAT4F 45-46 CDP4F 47-48 BMAT4F 49-50 CMAT4F 51-52              00000420
     BFAT4F 53-54 CFAT4F 55-56 CDA4F 57-58 MBLAMEF 60 FBLAMEF 61                00000430
    /RETOTL 1-2 RETOTM 3-4 RETOTF 5-6 ATTOTL 7-8 ATTOTM 9-10                    00000440
     ATTOTF 11-12 NATTOTL 13-14 NATTOTM 15-16 NATTOTF 5-6                       00000450
     CDTOTL 19-20 CDTOTM 21-22 CDTOTF 23-24 MATTOTL 25-26 MATTOTM 27-28         00000460
     MATTOTF 29-30 FATTOTL 31-32 FATTOTM 33-34 FATTOTF 35-36                    00000470
     SATTOTL 37-38 SATTOTM 39-40 SATTOTF 41-42 CDPTOIL 43-44                    00000480
     CDPTOTM 45-46 CDPTOTF 47-48                                                00000490
    /BMATTOTL 1-2 BMATTOTM 3-4 BMATTOTF 5-6 CMATTOTL 7-8                        00000500
     CMATTOTM 9-10 CMATTOTF 11-12 BFATTOTL 13-14 BFATTOTM 15-16                 00000510
     BFATTOTF 17-18 CDATOTL 25-26 CDATOTM 27-28 CDATOTF 29-30                   00000520
    /RETOA 1-2 ATTOA 3-4 ANDEX 5-7 MATTOA 8-9 MANDEX 10-12                      00000530
     FATTOA 13-14 FANDEX 15-17 SATTOA 18-19 SANDEX 20-22                        00000540
     BMATTOA 23-24 BMANDEX 25-27 CMATTOA 28-29 CMANDEX 30-32                    00000550
     BFATTOA 33-34 BFANDEX 35-37 CFATTOA 38-39 CFANDEX 40-42                    00000560
PEARSON CORR MBLAMEL WITH MBLAMEM                                               00000570
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STATISTICS ALL                                                    00000580
OPTIONS 3                                                         00000590
PEARSON CORR FBLAMEL WITH FBLAMEM                                 00000593
STATISTICS ALL                                                    00000596
OPTIONS 3                                                         00000599
FINISH                                                            00000600
//                                                                00000605
                                                                  00000610
                                                                  00000615
                                                                  00000620
                                                                  00000625
                                                                  00000630
                                                                  00000635
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                                                                  00000665
                                                                  00000670
                                                                  00000675
                                                                  00000680
                                                                  00000685
                                                                  00000690
                                                                  00000695
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Autobiographical Statement

Debra Drown was born on May 8, 1949 at Wright Patterson Airforce Base near Dayton, Ohio. She spent her childhood in a suburb of Seattle, Washington, and received a B. S. in Psychology from the University of Washington in 1971. She graduated Magna Cum Laude, with Honors in Psychology, and was elected to Phi Beta Kappa. After graduation, Ms. Drown spent ten years traveling and working diverse jobs.

During graduate school at the Virginia Consortium for Professional Psychology, Ms. Drown received two Doctoral Merit Fellowships from Old Dominion University (1982, 1984), a Fellowship from the College of William and Mary (1981), and a Fellowship from Eastern Virginia Medical School (1982). Her dissertation research was funded by a grant from the Society for the Psychological Study of Social Issues and by the College of William and Mary. She spent a year of clinical internship at Dartmouth Medical School in Hanover, New Hampshire.

Ms. Drown's publications include:

Shaver, K. G., & Drown, D. (1986). On causality, responsibility, and self-blame: A theoretical note. Journal of Personality and Social Psychology, 50, 697-702.

Hunter, J. A., Childers-Temple, S., Drown, D., & Deaton, F. (1986). The effects of child sexual molestation on the developing female identity: Treatment issues and strategies. Proceedings of the First International Conference on the Status of Girls. Montreal, Canada: Editions Guerin.