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THE RELATIONSHIP OF STRESS, COGNITIVE APPRAISAL
AND DATING VIOLENCE

THESIS

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The purpose of the present study was to test a specific path model. It was hypothesized that the relationship between the impact (amount and valence) of stress and an outcome (expressing violence toward a partner) would be mediated by an individual's cognitive appraisal of stressful events. Multiple regression procedures were used to test the model. Standardized beta coefficients indicated the strength of the relationships among the variables. Significant findings indicated that the strength of specific relationships among the ten variables (impact of events, three types of primary appraisal, four types of secondary appraisal and the expression of threats and acts of physical violence toward a partner) differed depending upon subject sex and whether the impact of the events was perceived as positive or negative.

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THE RELATIONSHIP OF STRESS, COGNITIVE APPRAISAL
AND DATING VIOLENCE

Stress and stressful life events have been examined in terms of whether events are positive or negative for an individual, and in terms of the effect these events have for a person (DeLongis, Coyne, Dakof, Folkman & Lazarus, 1982; Monroe, 1983; Nelson & Cohen, 1983; Sarason, Johnson & Siegel, 1978; Vinokur & Selzer, 1975; Zautra, Guarnaccia & Reich, 1989). One possible outcome of stress is violence expressed toward a partner (Barling & Rosenbaum, 1986; Makepeace, 1983; Marshall, 1987; Marshall & Rose, 1987, 1990; Mason & Blakenship, 1987). Yet, to date no comprehensive theoretical structure has been posited for the relationship of stress to violence. This paper proposes that the relationship of stressful life events to dating violence may be mediated by an individual's cognitive appraisal of the event as harmful, threatening, or challenging and appraisal of his or her relevant coping resources (Folkman, 1984; Lazarus & Launier, 1978). Further, these relationships will differ by whether the impact of the event is perceived of as positive or negative for the individual.

In addition to testing this theoretical model, several other problem areas in this literature are addressed by this

study. These include the common practice of focusing on only negative events and their contribution to negative outcomes. Positive events and their potential relationship to negative outcomes has largely been ignored, assuming positive events act only as buffers (Cohen & Hoberman, 1983; Cohen & Wills, 1985) or only to produce positive outcomes (Headey & Wearing, 1989). This study examines whether the valence of an event (whether it is positive or negative for that individual) is directly related to the outcome. There is also a question in the literature regarding the generalizability of studies because the valence of an event often has been determined by raters (Marshall & Rose, 1987). The position take here is that desirability and impact ratings made by the subjects themselves will lead to more meaningful results. Finally, much controversy exists over whether major events or minor events are more relevant to the outcome of stressors. No known research to date has examined the combined effects of these events. This research examined major and minor life events simultaneously, because they cannot be separated in an individual's daily life. These points and other relevant issues are addressed in more detail below.

Violence occurring in marital relationships has been of increasing interest to researchers during the past decade. As many as 50% of the women in the United States may experience physical violence from their partner at some

point during their marriages (O'Leary & Arias, 1988). Recently, similar attention has been focused on dating relationships, with estimates of prevalence ranging from 9% to 65% (Sugarman & Hotaling, 1989). In both bodies of literature a number of factors have been associated with relationship violence including violence in the family of origin, income, conflict, relationship problems, and religion (DeKeseredy, 1988; Gelles, 1980; Hotaling & Sugarman, 1986, 1990; O'Leary, 1988; Riggs & O'Leary, 1989; Riggs, O'Leary & Breslin, 1990; Straus, Gelles & Steinmetz, 1980; Sugarman & Hotaling, 1989). Stress has also been found to be related to both dating and marital violence. It has been argued theoretically (Farrington, 1980), in review (Sugarman & Hotaling, 1989), and empirically (Straus, 1990) that stress increases the likelihood of violence. However, all individuals experiencing stress are not violent (Hotaling & Sugarman, 1986). The results of the few studies addressing these issues are inconsistent and inconclusive.

Clearly, many factors may play a role in determining the outcome of any particular life event for a given individual. These outcomes may range from the positive (e.g., goal attainment) to the negative (e.g., aggression or violence toward a partner). In the past, however, stressors (major and minor life events); the perception of an event (cognitive appraisal); and violence have not been empirically examined in relation to each other in any depth.

Consequently, there is a need to examine these constructs together, beginning with the research on stress and intimate violence.

Stress and Intimate Violence

Authors writing from a clinical or treatment perspective have long made an association between stress and violence in relationships (Farrington, 1980; Gelles, 1980; Hilberman, 1980). However, Hotaling and Sugarman's (1986) review concluded that there was not sufficient data available to clarify this relationship. They found only two studies (Rouse, 1984; Straus et al., 1980) meeting their criteria for inclusion (e.g., comparison group, exclusion of marital rape or psychological abuse, married or cohabiting subjects). Since then more research has been conducted, but the results are no more conclusive for either dating or marital relationships (Straus, 1990; Sugarman & Hotaling, 1989).

One reason for this may be methodological problems which appear to result from an overly simplistic conceptualization of stress. For example, although stress may contribute to an increased likelihood of violence, many other variables identified as important in the literature could themselves be considered stressful. Some of these factors include relationship problems, marital conflict and unemployment, all of which could be conceptualized as stressful life events or contributors to stress. Another

problem is that multiple sources of stress are often not examined. Instead, researchers generally focus on either work stress or major life events which may only include negative stress.

One reason for the lack of consistency may be that many studies only examine negative stressors. Positive stressors are ignored although these, too, may be related to partner violence (Makepeace, 1984; Marshall & Rose, 1987, 1990). For example, MacEwen and Barling (1988) proposed, but found no evidence to indicate that violence observed in the family of origin moderates the relationship between work and life stressors and marital violence. Negative stress did not predict expression of marital violence for men, but did for women. Although their measure of stress included both positive and negative impact weightings, only negative stress was examined. Barling and Rosenbaum (1986) found that physically abusive husbands reported the occurrence of more stressful work events and a greater negative stress impact than did distressed, nonabusive, or satisfied husbands. Lupri (1989) found that violence between males and their spouses increased proportionately with instances of stressful work events. However, only events which had negative economic outcomes for the individual were examined. As evidenced in these and other studies, the consistent focus in this literature has been on negative stressors. The effects of positive stressors have not been examined.

Perhaps the inconclusive results or the lack of literature regarding both positive and negative stress and relationship violence are a result of a narrow focus which often does not take into account the interactive effect of different variables. This narrow focus seems to assume that it is not possible for variables such as positive stressors to have the potential for a negative effect. Indeed, many neutral or positively perceived stimuli are capable of placing demands upon people experiencing them. Thus, virtually all stimuli in a person's environment have the potential to produce stress for some individuals (Farrington, 1980). Thus, the association of stress and violence is widely accepted. However, the research is limited by only examining a small number of possible mediating variables and ignoring theories in the stress literature such as cognitive appraisal (Lazarus & Launier, 1978).

Like MacEwen and Barling (1988), Straus (1990) examined several possible mediating variables and their relation to stress and marital violence. He found a positive correlation between stress scores and violence among husbands and wives. The relationships for both expressed and received violence for males and females were strongest for spousal stress and economic plus occupational stress subscores. Increased violence for men experiencing high stress was related to a greater childhood experience with violence, a belief in the legitimacy of family violence, low

marital satisfaction, low socioeconomic status, high marital power, and low social integration (religious and organizational involvement). This study shows that stress coupled with moderating factors may result in higher marital violence rates. However, once again the life stressors used were only negative events. It is not known whether the effects of positive events would be mediated in the same way.

Mason and Blankenship (1987) found that male students with high negative stress were not more physically violent to dating partners. However, among female students with high negative stress, a high need for affiliation and low activity inhibition, the expression of physical violence and verbal abuse was found to be more frequent. This research also underscores the likelihood that the relationship between stress and violence is not straightforward. Stress alone may not necessarily be associated with increased violence; other intervening variables may moderate the relationship. Although assessed, this study did not examine the potential of positive stress.

Makepeace (1983) found that total stress was not related to either expressing or receiving violence in dating relationships. However, for males, undesirable events (not health related) were associated with an increased in the expression of violence, and desirable events were associated with decreased violence. None of the stress scores affected

involvement in violence among the women. In a study conducted by Marshall and Rose (1987) undesirable nonhealth related stress and health related stress were both predictors of females receiving violence. Undesirable nonhealth related stress predicted the expression of violence by females. The authors acknowledge that a significant problem with their study, as with Makepeace's was that the participants did not report the desirability of (positive or negative) and impact associated with the stressful events. Thus, a later study (Marshall & Rose, 1990) made this improvement. The results conflicted with the earlier research in that positive stress contributed to males' expression of violence. A partial explanation for this discrepancy may be due to the idiosyncratic measurement of stress in which the subjects rated the desirability and impact of the events themselves. Clearly, the possibility of positive stress impacting violence cannot yet be eliminated.

When assessing stress it is important not only to have the subjects specify the personal significance of life events, but also to have them define the desirability associated with the events before their impact can be measured. An individual's perception of an event as either desirable or undesirable has been considered similar to, and in some instances synonymous with, positive and negative stressors. Since different individuals perceive events

differently, a pregnancy may be positive for some women, but not for others. Similarly, the impact of a pregnancy differs depending upon whether or not it was planned. As Marshall and Rose (1990) noted, no event in their study was perceived as positive or negative by all subjects. This underscores the importance of having individualized ratings of the event itself, its desirability and impact.

Thus, no firm conclusions can be drawn. Some studies find an association between stress and violence (Barling & Rosenbaum, 1986; Lupri, 1989; MacEwen & Barling, 1988; Marshall & Rose, 1987, 1990; Mason & Blankenship, 1987; Makepeace, 1983; Rose & Marshall, 1985; Straus, 1990). Some research has found such an association, but only among males or females, not both (MacEwen & Barling, 1988; Makepeace, 1983; Mason & Blankenship, 1987). Finally, only four studies (Makepeace, 1983; Marshall & Rose, 1987, 1990; Parra, 1990) have examined the possibility that the valence of the stressor may be important. The literature on stress has begun to address this possibility.

The Stress Literature

To most theorists, a stressor is an internal or external event to which an individual must adapt (Folkman, 1984; Folkman & Lazarus, 1980; Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986; Hart & Cardozo, in press; Holmes & Rahe, 1967; Kanner, Coyne, Schaefer & Lazarus, 1981; Lazarus, 1986; Lazarus & Launier, 1978). Clearly implied is

that both positive and negative events (e.g., a job promotion or an injury, respectively) are associated with changes and adjustments which must be made. Researchers have examined stress in terms of the magnitude of the stressor (e.g., major vs. minor events) and factors contributing to the degree of experienced stress (e.g., controllability and desirability). Traditionally, this literature has addressed the effects of stress on health and psychological distress primarily focusing on negative events. Although many measures include positive or desirable events, it appears to be implied that the only type of stress which is problematic is negative.

Positive stress is stress related to positive or desirable events (e.g., promotion to a more responsible job) which, like negative events, may have negative implications. For example, negative outcomes for a desirable event could be due in part to an individual perceiving himself or herself as having a potential for failure (i.e., the desirable event may be perceived as threatening). Positive events may also include new demands that tax a person's coping capabilities, especially if he or she is experiencing other life stresses (Janis, Defares & Grossman, 1983). Therefore, seemingly positive events may set the stage for negative life experiences (Zautra & Reich, 1983). Evidence that positive events have a relationship to distress, coping, stress tolerance, or any negative aspect of well-

being, is scarce (Reich & Zautra, 1988). Brown and McGill (1989) found that positive life events could produce negative health consequences. Positive stressors were associated with increases in illness among subjects with low self-esteem. Among those with high self-esteem, positive events were linked to better health. These results contradict much of the stress research. Due to conflicting findings the relationship between positive stressors and increased levels of physical illness, although evidence is minimal, should be investigated more thoroughly.

Some of the stress literature indicates that any event may contribute to mental distress not only because of the event itself, but because of interactions between the event, the perceived threat, harm or challenge associated with it, and the implications of the event (Folkman & Lazarus, 1980; Hart & Cardozo, in press; Lazarus & Launier, 1978). Since the valence of an event may be independent of its outcome, Zautra and Reich (1983) argued that almost any positive event could set off a series of negative episodes for a person, depending upon how the individual and his/her social system responds. Therefore, it is not only whether the event is positive or negative that may influence the relationship between stress and another variable, but it is also likely that an individual's perceptions of a stressful event and his/her perceived ability to cope with that event may factor into predicting family violence (Barling &

Rosenbaum, 1986). These possible influences on stress and violence, along with the effects of desirability and cognitive appraisal, should be assessed carefully.

Although early research primarily examined major life events, recent findings show that undesirable minor events appear to contribute to psychological symptoms (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982; Monroe, 1983). Minor stressors have also been shown to be related to depression, anxiety and negative affect (Zautra, Guarnaccia, & Reich, 1989). When these same life events are examined by valence, those which are negative (major and minor) have most commonly been found to be related to psychological disorder and problems (Nelson & Cohen, 1983; Sarason, Johnson, & Siegel, 1978; Vinokur & Selzer, 1975) or inversely related to positive well-being (Reich & Zautra, 1988). Such findings help to illustrate the possibility that the valence of any event, whether negative or positive, may be independent of outcome. Given this possibility it is likely that there are mediating variables and intervening processes which take place between the initial occurrence of the stressor and the outcome.

Kanner et al. (1981) use the term "hassles" to represent everyday demands of the environment, and "uplifts" to represent positive daily experiences. This description implies that the former events are stressful, but the latter are not. Unfortunately, many of the uplifts may also be

stressful. For example, relating well with your spouse or partner is likely to require effort and adjustment which are characteristics of stressors (Lazarus & Launier, 1978). In the Kanner et al. (1981) study hassles were the best predictor of symptoms of physical illness when compared to major life events and uplifts. However, for women uplifts were positively related to increased physical symptoms. Thus, minor positive and negative events may have similar effects on physical health. If uplifts are not necessarily related to better physical health, it is also possible that the psychological impact of uplifts may not always be positive. Therefore, minor positive events could be related to negative effects for an individual.

One of the most debated areas of stress research hinges on a disagreement between whether minor or major events should be assessed. Both major and minor events seem to be related to symptoms of stress, with an increasing consensus that daily life stressors may in fact be more sensitive indicators. However, it appears arbitrary to separate minor stressors from major life events. Unlike research, in daily living these types of events are not differentiated. Therefore, when trying to ascertain the impact of stress both major and minor events should be included. For example, it is doubtful that in everyday life the effects of hassles (e.g., illness of child, household appliance broken down, weather) can be separated from the effects of major events

(e.g., divorce, death of a family member) when they occur concurrently.

Some findings from both the major and minor event perspectives are similar, perhaps because these measures are partially confounded. The scales include many items which seem to overlap with each other and with psychological symptoms which are often correlated with stress. An example of this similarity is that "broke a minor law" (Zautra, Guarnaccia & Dohrenwend, 1986) and "minor law violations" (Sarason et al., 1978) appear on both minor and major event scales, respectively. Additionally, the Life Experiences Survey (LES; Sarason et al., 1978) includes "a major change in usual type and/or amount of recreation" and "increased or decreased participation in social activities." These events are also psychological symptoms. The Inventory of Small Life Events (ISLE; Zautra et al., 1986) has a significant strength in the number and breadth of the daily events covered. However, "having trouble sleeping one or more nights" is considered a minor event on the ISLE, but is also related to physical or emotional problems. Thus, one criticism of life event research are two confounds in which similar events appear on both major and minor life event measures, and many events may themselves be psychological symptoms. Despite these criticisms, the LES is widely used and allows positive and negative stress scores to be calculated yielding an individualized measurement of events.

In a recent article by Zautra, Guarnaccia, Reich and Dohrenwend (1988) the relationship between small life events, desirability, and the outcome of the stressful event was discussed. These authors agreed with Monroe (1983) and others that the assessment of daily negative events (hassles) allows the research to be more specific, by providing more precision due to the smaller units of behavior. Zautra et al. (1988) concluded that small events contribute to the prediction of adverse psychological outcomes after the effects of major events have been accounted for. With both major and minor events contributing to adverse outcomes they should be considered together.

Not only do hassles, uplifts and major events affect physical health (Brown & McGill, 1989; Kanner et al., 1981), but they may also be related to psychological symptoms (DeLongis et al., 1982; Monroe, 1983; Nelson & Cohen, 1983; Sarason et al., 1978; Vinokur & Selzer, 1975; Zautra & Reich, 1988; Zautra et al., 1989) including violence in marital and dating relationships. Other mediating factors may be the perceived desirability of an event, or an individual's cognitive appraisal of an event.

Vinokur and Selzer (1975) investigated whether major events should be conceptualized in terms of desirability. They found that negative events were positively correlated with depression, suicide, paranoia, aggression, stress and

anxiety when subjects rated the valence of events for themselves. The positive events were positively correlated with paranoia, tension and distress, and aggression. Since both positive and negative events were related to distress depending upon the individual, it seems that the self-reported desirability of an event may be important when relating stress to outcome variables, including violence in marital and dating relationships.

Thus, research shows that the desirability of stressful events appears to be related to subsequent effects (Folkman, 1984; Headey and Wearing, 1989; Neale, Hooley, Jandorf & Stone, 1987; Nelson and Cohen 1983; Thoits 1983). The outcome of events is likely to vary independently of whether it is considered positive (desirable) or negative (undesirable). It is also likely that although major and minor events have been separated for empirical research, this does not reflect reality. Therefore, the cumulative effects of major and/or minor stressors may be more pertinent for the general population. Clearly, life events and the associated stress may affect people very differently, depending upon their perceptions of the event and their degree of psychosocial assets or coping mechanisms. According to cognitive appraisal theory (Lazarus & Launier, 1978) the indirect effects of events (e.g., mood) may depend more upon an individual's cognitive response to those events, than to the events themselves.

Cognitive Appraisal and Coping

Cognitive Appraisal Theory may illuminate the conflicting results in the stress literature and may help explain the diverse findings in the literature on violence and stress. Lazarus and his colleagues (Folkman & Lazarus, 1980; Lazarus & Launier, 1978) argue that cognitive processes mediate the effects of life events. According to this view, primary appraisal occurs when an event is initially defined as a loss, a threat or a challenge, each of which requires an adaptation and thus constitutes a stressor. The appraisal of harm or loss refers to the degree to which damage has been done to the individual by the event (e.g., to self-esteem). Threats refer to the potential for harm or loss to a loved one, and challenges refer to a perceived opportunity for growth, mastery or gain (Folkman, 1984). Secondary appraisal is an evaluation of the adequacy of perceived coping resources available to an individual. Both forms of appraisal function as mediating processes which determine the effects of a particular life event regardless of whether it has been deemed positive (i.e., a challenge) or negative (i.e., a threat or loss).

From this perspective (Lazarus & Launier, 1978), the degree of psychological stress depends upon an individual's perception of how much he or she may be harmed, threatened or challenged and the coping resources he or she believes are available. For example, a threat may result from a

weak demand that appears stronger than the resources for managing it. Alternatively, a person may be threatened because the external demand seems very taxing and the resources for managing it are weak. Therefore, the outcome of the threatening, harmful or challenging event depends upon the balance (or imbalance) between perceived demands and perceived resources (Lazarus & Launier, 1978). Thus, this theory inextricably links stress and coping. For example, Folkman et. al (1986), found that variability in coping was partially a function of an individual's judgments regarding what was at stake in a specific stressful encounter (primary appraisal) and what the individual viewed as options (secondary appraisal). Unresolved stressful situations combined with a perceived inadequacy of appropriate coping resources can result in violence as a means of coping behavior (Farrington, 1986).

Primary and secondary appraisal are interactive, yet independent of each other and may be studied separately or concurrently. For example, McCrae (1984) examined primary appraisals. The initial definition of the stressor had a consistent and significant effect on the individual's choice of coping strategies. The main problem with this study was that two psychologists defined the events as harmful, threatening, or challenging. This problem is similar to the violence literature in which Makepeace (1983) and Marshall and Rose (1987) determined themselves whether an event was

desirable or undesirable. Due to the methodological problems in "objectively" defining an event and achieving interrater reliability, idiosyncratic methods should be used in which both the desirability, as well as the appraisal of events are defined by the subject.

Hart and Cardozo (in press) examined cognitive appraisal to determine whether the categorization of events as threatening, challenging, or harmful resulted in different coping responses. Subjects reported details regarding recent stressful situations that elicited feelings of anger, hostility and irritability. Both coping and affective responses were influenced by the degree of imbalance between primary and secondary appraisal of a situation. It seemed that highly threatened individuals felt angrier and tended to underutilize potentially adaptive coping tactics. Similarly, Finn (1985) found that as stress increased, normative coping methods decreased, and nonnormative coping methods increased. Therefore, the degree of threat and the response evoked may depend upon the balance between the demands of the situation and the perceived resources of the individual.

Thus, between the occurrence of the initial life event and its outcome there is likely to be a mediating process or a series of intervening variables. Cognitive appraisal may be part of this process. It is likely that the way an individual perceives an event, coupled with his or her

perceived coping resources intercedes to affect the outcome of that stressor for that individual. Therefore, it is important to assess the occurrence or nonoccurrence of this mediating process and its relationship to dating violence.

Summary and Rationale

Although positive events may be more frequent in most individuals' lives than negative events, they have not been adequately investigated in the stress, coping or violence literatures. Part of this problem may result from the lack of theoretical explanation for any associations between positive events and negative effects. It is proposed here that cognitive appraisal mediates the relationship between stressors (positive or negative) and expressed violence (a negative outcome). This contrasts with notions that life changes appraised as challenging result in positive stress (Bhagat, McQuaid, Lindholm, & Segovis, 1985) or a decrease in the effects of negative stressors (Cohen & Hoberman, 1983; Cohen & Wills, 1985; Headey & Wearing, 1989). Positive events have not been found to have the same impact on distress as negative events. However, this may be partly because most studies have treated negative and positive stress separately (Zautra & Reich, 1983), or ignored positive stress (Barling & Rosenbaum, 1986; Lupri, 1989; MacEwen & Barling, 1988; Makepeace, 1983; Marshall & Rose, 1987; Mason & Blankenship, 1987; Straus, 1990). Thus, this study examines both positive and negative stress scores and

their relationship to cognitive appraisal and expressed violence.

Life events have been shown to contribute to physical illness and psychological impairment, however, most research still does not delineate whether the contributing events are positive or negative. When addressed, most research has studied positive stress as a comparison or contrast condition (Reich & Zautra, 1988). This may explain why much of the research on dating and marital violence has simply ignored positive stress scores during data analysis (Barling & Rosenbaum, 1986; DeKeseredy, 1988; Farrington, 1980, 1986; Gelles, 1980; MacEwen & Barling, 1988; Makepeace, 1983; O'Leary, 1988; Riggs & O'Leary, 1989; Riggs et al., 1990; Rose & Marshall, 1985; Stith, 1987; Straus, 1990). Thus, positive stress scores will be investigated in terms of their association with one possible outcome of stressful events, expressed violence. Positive events tend to relate to well-being (e.g., increased positive affect, improved satisfaction), and few significant relationships have been found with negative states (e.g., distress, depression, and symptomatology) (Reich & Zautra, 1988). More recent findings, however, do indicate that positive stress may have some relationship to expressed violence (Marshall & Rose, 1987, 1990; Parra, 1990).

Much of the research which has failed to examine positive stress scores has used The Life Experiences Survey

(LES; Sarason et al., 1978). Subjects indicate the events they have experienced and then rate the desirability and impact of each experienced event. However, much debate exists over which is the more sensitive and appropriate type of event to measure--major or minor events. Many items on the current scales overlap, or may also be psychological symptoms. Both types of events have been used as indicators of levels of experienced stress. However, there is really no clear rationale for measuring these two types of events separately because neither the events themselves, nor the outcome of those events, can be separated in reality. Both major and minor events actually occur simultaneously in people's lives. Certainly sometimes these types of events may be correlationally or causally related, but at other times they may be unrelated to each other. By not measuring the events together, an artificial and arbitrary situation is set up which assumes a different relationship for major and minor events or outcomes. Thus, this research examines major and minor events concurrently.

Finally, desirable, positive events repeatedly have been found to be related to stress in a positive manner (Block & Zautra, 1981; Headey & Wearing, 1989; Kanner et al., 1981; Zautra & Reich, 1983). However, problems preclude accepting these findings at face value. First, what has been described as positive events are often stressful in the sense of creating a need for adaptations,

and they could have some negative implications. Second, defining events as positive or negative based upon researcher or even normative opinions does not mean that individuals will perceive a specific event in the same way or that different perceptions will be random. Whether an event is defined as positive or negative is independent of the outcome of that event. Therefore, a positive event may result in a positive or negative outcome. Similarly, a negative event may result in a negative or positive outcome. No hypothesis is posited in this research regarding the type of event (positive or negative) and particular negative or positive outcomes for individuals.

In part, the delineation may depend upon the threat associated with the stressor, and the person's perceived ability to cope with the event (i.e., secondary appraisal). If the event is perceived to be nonthreatening (negative or positive) and the individual feels that he/she possesses adequate coping resources, this event may be unlikely to result in a negative outcome for that individual. For example, if an individual borrows more than \$10,000 (or gets married) she or he may feel little stress because these events may be considered nonthreatening and the individual may feel she or he has adequate resources to deal with the event. In contrast, if the event is perceived to possess a high potential for harm or loss (threat), and the individual perceives that his or her coping resources are not adequate

to meet those demands, the outcome is more likely to be negative. In another instance, if an individual has a major illness (or a new job) he or she may feel a great deal of stress because the individual perceives his or her coping resources as inadequate. Thus, the discrepancy between an individual's appraisal of an event as harmful, threatening or challenging and his or her perceived coping resources may be important factors in determining the outcome of the stressor. Cognitive appraisal, therefore, was examined in this study as a possible mediator between stress and violence.

For these reasons, this research tested a specific path model. The relationship between amount of stress and one possible outcome (expressing violence toward a partner) was expected to be mediated first by primary appraisal of events, then by secondary appraisal. The strength of specific relationships between the ten variables (impact of events, three types of primary appraisal, four types of secondary appraisal and the expression of threats and acts of physical violence toward a partner) were expected to differ depending upon subject sex and whether the impact of events is perceived as positive or negative.

Several assumptions were apparent in the methodology. One assumption was that the positive or negative impact of events as perceived by subjects affects the relationships among variables in the model. It was also assumed that both

major and minor events occur in people's lives and that the effects may be cumulative. Therefore, major and minor events endorsed by the subject were not distinguished. A third assumption was that individuals may perceive any given event as having all three elements of primary appraisal (threat, harm and challenge) to a greater or lesser degree. Thus, the three components were each assessed for every event. This same assumption holds for secondary appraisal because all four coping resources may be relevant for any given primary appraisal. However, the four coping resources were expected to show different relationships to the expression of threats or actual violence. Finally, it was assumed that males and females may respond differently to stressful events and the variables would show different interrelationships based upon the sex of the subjects.

METHOD

Sample

Male and female college students ($N = 263$) in dating relationships completed surveys for extra credit in psychology classes. Males comprised 48% ($n = 127$) of the sample and females comprised 52% ($n = 136$) of the sample. A total of nine subjects were dropped (three males, six females) due to incomplete data.

Instruments

The only identifying information was the last four digits of participants' social security numbers so that any

duplicate numbered surveys could be eliminated from the data set. No duplicate surveys were found. After responding to demographic and descriptive questions, subjects completed the scales in the following order: the Life Experiences Survey (Sarason et al., 1978), a modified version of the Inventory of Small Life Events (Zautra et al., 1986), a modified version of the Cognitive Appraisal scale (Folkman et al., 1986), and the Severity of Violence Scales-Student versions (Marshall, in press; under review).

Major Stressors. Subjects were given the Life Experiences Survey (LES; Sarason et al., 1978). The LES is a 57 item self-report measure on which individuals indicate events that they have experienced during the past year. Section 1 contains 47 events referring to life changes common to individuals in a variety of situations. Section 2 is designed specifically for students and contains a list of 10 academic events. Both sections are relevant to students. Thirty-four of the items are similar to those found in the Schedule of Recent Events (SRE; Holmes & Rahe, 1967). In development items were added, made more specific, and made applicable to both males and females, such as pregnancy, and change in work conditions for either husband or wife. Respondents report only those events which have occurred within the preceding year. When an event occurred, subjects rated it on a 7-point scale ranging from extremely negative (-3) to extremely positive (+3), with zero as neutral.

The original data for the scale were obtained from 345 college students (Sarason et al., 1978). There were no significant differences between males and females on any of the three measures. Positive and negative stress scores were found to be essentially unrelated. Two test-retest reliability studies were conducted for the LES, both of which involved a five to six week interval. There were 34 subjects in the first study and 58 in the second. Test-retest correlations for the positive change score for the LES were .19 and .53 ($p < .001$). The correlations for the negative change score were .56 and .88 ($p < .001$). The LES had total change reliability coefficients of .63 and .64 ($p < .001$). These findings suggest that the LES is a moderately reliable instrument. This scale has been used in research on violence and on stress (e.g., Cohen & Hoberman, 1983; Marshall & Rose, 1990; Nelson & Cohen, 1983; Smith, Johnson, & Sarason, 1978; Vossel & Froehlich, 1979). Results of these studies show that the scales correlate in ways that would be expected for a measure of stress.

Minor Stressors. Minor positive and negative events were measured by a modified version of the Inventory of Small Life Events (ISLE; Zautra, Guarnaccia, & Dohrenwend, 1986). The ISLE consists of 250 items in 13 categorical areas. The areas that were used were school, recreation, religion, transportation, household, relations with family, love and marriage, and social life. For this study five

areas were eliminated. Children, crime and legal matters, and work were eliminated due to a general lack of relevance for students. Money and finances are such a common stressor for college students that including it would not be likely to provide useful information. Finally, the association between stress and health has been well documented so the health and illness subscale was removed.

Initially, the ISLE (Zautra et al., 1986) was rated by college students ($n = 39$) and experts ($n = 14$) to determine whether the items on the measure met four basic criteria. These were that they had to be distinguishable from major events, distinguishable from ongoing activities of daily living, observable and written as either unambiguously desirable or undesirable. The subjects (raters) were asked to rate the amount of readjustment required for each event. Marriage was given an arbitrary value of 500. Subjects also rated the controllability, desirability and cause of the event. Most of the small events were found to show average readjustment ratings scores of 250 or less.

To be included as a small event the mean ratings could be no higher than one-quarter of a standard deviation above 250. The ratings for major events on the ISLE showed a moderately strong correlation ($r = .69$) with ratings on the Major Life Events Scale of the PERI (Dohrenwend, Krasnoff, Askenasy, & Dohrenwend, 1978). Agreement between the expert and college raters was moderately strong. The internal

consistency of the items as desirable or undesirable was assured by designating that they had to be rated in the same direction by 90% of the raters, rated in the opposite direction by less than 10%, and rated as neutral by less than 20% of the raters. When examining the compatibility of raters between original raters of the PERI and current raters of the ISLE for major events, the readjustment ratings for the ISLE major event items were slightly lower ($M = 359$) than those of the major events of the PERI ($M = 398$), with an average difference of 39 adjustment units.

Although the ISLE was previously validated using a rating system for life change similar to Holmes and Rahe (1967) a modification will be made. To obtain comparable positive and negative stress scores for both major and minor life events a 7-point rating scale was used for all items. Subjects rated the amount and direction of the impact associated with each event on a scale ranging from -3 to +3. This scale allowed for idiosyncratic measurement of the event. Individuals reported events which had occurred during the preceding month.

Two stress impact scores were derived. All (major and minor) stressful events rated as positive were summed. Additionally, all stressful events rated as negative were recoded to yield positive numbers then summed.

Cognitive Appraisal. Cognitive appraisal was measured using a modified version of the scale developed for primary

appraisal and the original version of the measure of secondary appraisal (Folkman et. al, 1986). Primary appraisal, an assessment of what is at stake in a stressful encounter, was assessed with three items. These items described a stake to one's self-esteem (threat to self), a loved one's well-being (threats of harm or loss) or other important events (challenges). Subjects indicated the extent to which each of the stakes was involved in the stressful encounter or event about which he or she was reporting.

The primary appraisal items included threats to self-esteem ("How threatening was this event to you?"); threats of harm or loss of a loved one ("How much harm or loss occurred to a loved one due to this event?"); and challenges ("How challenging was this event for you?"). The original primary appraisal items used by Folkman et. al, (1986) were not used because it was felt that more straightforward questions were needed to achieve salient subject responses. Subjects indicated how threatening, harmful or challenging each event was to them on a 7-point likert scale ranging from 1 (extremely) to 7 (not at all). Threat scores ranged Secondary appraisal was assessed with items that described coping options (Folkman et. al, 1986). Subjects indicated the extent to which they felt that the situation was one: "that you could change or do something about," "that you had to accept," "in which you needed to know more before you

act," and "in which you had to hold yourself back from doing what you wanted." Five point scales (does not apply to applies a great deal) were used. Intercorrelations between these secondary appraisal items (Folkman et. al, 1986) range from $-.49$ to $.14$ (averaged over five occasions) affirming that the statements are indicators of different coping options. A five-point rating scale ranging from 1 (does not apply) to 5 (applies a great deal) was used for secondary appraisal.

Primary and secondary appraisal questions were asked for both major and minor life events. Subjects chose events from a list compiled from the LES and ISLE. These events had to have occurred to them within a specified time frame. This time frame was within one year for major events and within one month for minor events or hassles. After choosing these items, subjects went back and answered each of the seven primary and secondary appraisal questions for each event or item.

Violence. Physical violence in dating relationships was assessed by the Severity of Violence Against Women Scale-Student (SVAWS-S; Marshall, in press) and the Severity of Violence Against Men Scale-Student versions (SVAMS-S; Marshall, under review). These scales are composed of the same 46 items. Males and females reported the frequency with which they have expressed threats and acts of violence

in their relationship on five point scales from never (0) to very often (4).

To develop these scales Marshall had female (male) students ($N = 1277$) describe how violent, serious, abusive, threatening, and aggressive it would be if a man (woman) did each of the acts to a woman (man) using ten-point scales. All acts have the clear implication of potential for physical harm. Three acts initially included (withholding sex, having sex after a fight and having sex while mad) were dropped because comments from students indicated that they may not be indicative of violence and may have different meanings for males and females.

Means across the ratings were derived then submitted to factor analysis resulting in nine dimensions for violence against women and eight dimensions for violence against men. For females there were four dimensions of threat (symbolic violence, threats of mild, moderate and serious violence), and four dimensions for actual violence (mild, minor, moderate and serious violence), and one dimension of sexual violence. Data from community women ($N = 208$) were submitted to second order factor analysis which showed that the two underlying dimensions distinguished threats from acts of violence. (The sexual dimension loaded on the latter factor.) Symbolic violence did not emerge as a separate dimension for males. Among community men ($N = 115$)

the sexual violence dimension loaded on the second order factor with threats.

The wording of items is non-gender specific such that subjects rate "how often have you" done each act to your partner. For this study, the sexual violence subdimension was not used for analysis. Subjects received two scores based upon results of the second order factor analysis in the original studies. The threat of violence score was the sum of 19 threat items. Thus it included symbolic violence, and threats of mild, moderate and serious violence. Subjects' expressed violence score reflected the sum of the nineteen acts of mild, minor, moderate and serious violence.

Procedures

Subjects were recruited by posting announcements on the Psychology Extra Credit Board, and by verbal announcements of the survey in undergraduate psychology classes. The subjects were tested in groups in a large testing room of the psychology building (Terrill Hall). When subjects arrived they were asked questions to confirm they were currently in a dating relationship, and to determine whether they had participated in the project previously. The survey was self-explanatory, however, subjects were told that they were free to ask questions regarding how to fill out the questionnaire during the testing. It took the participants approximately 45 minutes to complete the questionnaire. Upon completion, they were given extra credit points.

Statistical Analysis

Each participant had 11 scores. The primary variables were stress (positive and negative), primary appraisal (challenge, harm, threat), secondary appraisal (doing something, acceptance, knowing more and holding back), and the expression of threats and acts of violence. To obtain positive (range = 2 to 97; \bar{M} = 34.6) and negative (range = 1 to 92; \bar{M} = 21.2) stress scores, the sum for each across all major and minor events was used. Primary appraisal has three scores. A threat score was (range = 11 to 256; \bar{M} = 68.9) obtained by summing scores for the threat to self item across all stressful events. Challenge (range = 17 to 350; \bar{M} = 88.5) and harm to a loved one (range = 7 to 286; \bar{M} = 53.3) scores were calculated in the same way. Secondary appraisal items were also summed across all stressors for each separate variable. Thus, four computed scores for doing something (range = 9 to 221; \bar{M} = 86.6), acceptance (range = 11 to 266; \bar{M} = 80.3), knowing more (range = 7 to 242; \bar{M} = 62.6), and holding back (range = 7 to 207; \bar{M} = 57.7) comprised these variables. Scores for both threats of violence and actual violence were computed. Scores for threats of violence were summed on each of the threat subdimensions (symbolic, mild, moderate and serious) to reach a total score (range = 0 to 35; \bar{M} = 4.87). Acts of violence scores were attained in the same manner (range = 0 to 29; \bar{M} = 3.23).

Specific hypotheses regarding the strength of the relationships among positive events and violence were not proposed, only that there would be a relationship. The relationships found for positive stress were expected to be similar to those found in the literature for negative stress and violence. Specifically, stress (positive or negative) would be directly related to the three types of primary appraisal (threat, harm or challenge) and indirectly related to secondary appraisal (doing something, acceptance, knowing more, and holding back). Primary appraisal would be directly related to secondary appraisal and indirectly related to threats and acts of violence. Secondary appraisal, in turn, would be directly related to threats of violence and actual violence.

To test the hypotheses that primary and secondary appraisal mediate the relationship between stress and violence path analysis procedures were used. Multiple regression equations were computed for each of the nine dependent variables to obtain path coefficients for each hypothesized path in the causal models (Figures 1-4). Standardized beta weights utilized as path coefficients indicate the degree to which each factor contributed to the dependent variables. These variables were threats and acts of violence, doing something, acceptance, knowing more, holding back, threat, harm, and challenge appraisals. Four sets of nine multiple regressions were calculated. To

explain threats of violence, the four types of secondary appraisal and positive stress were entered as predictors. The three primary appraisal variables were entered with positive stress into four regression equations to explain each type of secondary appraisal. Three regression equations were calculated using positive stress to explain each form of primary appraisal. The same equations were calculated separately using negative stress for males and females.

Past research has not used these variables together before. Given the relevance of these results to theory development in the stress literature, nonsignificant trends in the results ($p > .05$, but $< .10$) are listed below. However, such nonsignificant results should be interpreted with caution.

RESULTS

The sample was fairly representative of students in undergraduate psychology courses. Participants ranged in age from 18 to 50 years old, with a mean of 21.25 years old. Their partners ages ranged from 17 to 75 years old, with a mean of 22.29. Most (77%) of the sample was anglo-american, 11% were african-american, 6% were hispanic in origin, and 6% were of other ethnicity. The mean length of their relationships was 17 months with a range of one to more than 99 months.

Sex differences were found between males (Figure 1) and females (Figure 2) for negative stress. For males, negative stress was positively related to threats of violence (.307, $p < .01$), and actual violence (.312, $p < .01$). Threats of violence and the coping strategy of knowing more for males were negatively related (-.225, $p < .10$). None of the other secondary appraisal dimensions approached significance for either threats or actual violence when considering males' negative stress. Challenge appraisals were positively related to all secondary appraisal variables for males, including doing something (.451, $p < .001$), acceptance (.170, $p < .05$), knowing more (.735, $p < .001$), and holding back (.243, $p < .01$). Harm was also related to all coping strategy variables for males. The potential for harm to a loved one was positively related to doing something (.264, $p < .01$), acceptance (.342, $p < .01$), knowing more (.224, $p < .01$), and holding back (.403, $p < .001$). Threat scores, however, were not significantly related to any of the secondary appraisal items for males' negative stress. Negative stress was significant at the .001 level for its relationship to threat, harm and challenge ratings. Negative stress accounted for 53% of the variance in threats, for 37% of the variance in harm, and 23% of the variance in challenges.

Figure 2 lists the standardized beta coefficients for females' negative stress. Unlike males, females' negative

stress was negatively related to their threats of violence ($-.255, p < .10$), and unrelated to actual violence toward their partner. Secondary appraisal variables were unrelated to either threats or actual violence, with the exception of the acceptance, which was positively related to actual violence ($.384, p < .10$). Similar to males, challenges were positively related to all secondary variables for females. Challenges were related to doing something ($.793, p < .001$), acceptance ($.660, p < .001$), knowing more ($.624, p < .001$), and holding back ($.355, p < .001$). Doing something and acceptance were not significantly associated with primary appraisals of harm to a loved one. Harm was only associated with knowing more ($.310, p < .001$) and holding back ($.199, p < .01$). Holding back was the only secondary appraisal variable significantly related to threats to the self ($.230, p < .05$) among females. Again, negative stress was significantly ($p < .001$) related to primary appraisals of threat, harm and challenge for females, accounting for 65%, 44%, and 52% of the variance, respectively.

Figures 3 and 4 show the associations for positive stress. Although positive stress was not directly related to threats or acts of violence for males, holding back, a secondary appraisal variable, was related to expressing threats of violence ($.253, p < .10$). The relationships for positive stress and negative stress differed for both males and females. These sex differences were also evident in

differences regarding primary and secondary appraisal. For negative stress, challenges were related to all secondary appraisal variables for both males and females. For males' positive stress, challenges were associated with doing something (.287, $p < .001$), knowing more (.668, $p < .001$), and holding back (.285, $p < .001$), but were unrelated to acceptance. For positive stress, harm was related to all secondary appraisal variables for males, but not females. For males, harm to a loved one was related to doing something (.285, $p < .01$), acceptance (.359, $p < .05$), knowing more (.242, $p < .01$), and holding back (.415, $p < .001$). The primary appraisal of threats to the self was only related to holding back (.182, $p < .10$). Although accounting for less variance than that of negative stress among males, positive stress accounted for 12%, 10%, and 31% of the variance for primary appraisals of threat, harm and challenge, respectively.

There was no significant relationship for females between positive stress and either threats of violence or actual violence. (See Figure 4.) No relationships were found for any of the secondary appraisal variables with threats or acts of violence for females' positive stress. As with negative stress, for females' positive stress, challenges were significantly related to all secondary appraisal variables, including doing something (.685, $p < .001$), acceptance (.609, $p < .001$), knowing more (.566, p

< .001), and holding back (.322, $p < .001$). The primary appraisal variable of harm to a loved one was related to two of the secondary appraisal variables; knowing more (.269, $p < .01$), and holding back (.141, $p < .10$). For females, threats were not related to doing something and knowing more, however, the personal threat associated with stressors was related to acceptance (.196, $p < .10$) and holding back (.420, $p < .001$). For females, positive stress accounted for 27%, 25%, and 36% of the variance for threat, harm and challenge, respectively.

DISCUSSION

The model examined in this study was that cognitive appraisal (primary and secondary) would mediate the relationship between stressful events and the expression of violence toward a partner. Although most of the direct relationships to expressed violence were nonsignificant whether the stress was perceived as positive or negative, there were some evident trends.

Among both males and females negative stress was related to threats of violence. For females, however, this was a negative relationship in that the more negative stress experienced, the less threats of violence they expressed. For males significant positive relationships existed for negative stress with threats of violence and actual violence. In previous research although sex differences have been found, threats of violence and actual violence

have not been differentiated. In Parra (1990), for example, the scale was still under development and these effects were not differentiated. Other violence research consistently uses a version of the Conflict Tactics Scale (Straus, 1979) which does not allow threats to be isolated from acts of violence. These results demonstrate the importance of differentiating these types of behavior as outcomes of stressors. The results also illuminate the importance of planning methodology and analysis so that sex differences may be found when they do exist.

It was also hypothesized that positive and negative stress would have similar relationships to threats and acts of violence. It is evident, that contrary to previous research (Barling & Rosenbaum, 1988; Lupri, 1989; MacEwen & Barling, 1988; Mason & Blakenship, 1987), both positive and negative stressors should be examined in relationship to the expression of violence. The relationships of primary appraisal to secondary appraisal, and secondary appraisal to threats of violence and actual violence for both positive and negative stressors are similar in size and direction. This should be interpreted with caution because primary and secondary appraisal scores were collapsed across positive and negative stress. This contrasts with many findings in the stress literature (DeLongis, et. al, 1982; Monroe, 1983; Nelson & Cohen, 1983; Sarason, et. al, 1978; Vinokur & Selzer, 1975), as well as the violence literature (Barling &

Rosenbaum, 1988; Lupri, 1989; MacEwen & Barling, 1988; Mason & Blakenship, 1987) that not only do positive events not have a relationship to negative outcomes, but that these relationships would be dissimilar to those which exist for negative stressors. This study demonstrates that this is not necessarily the case. The clear implication of the results is that positive stressors should no longer be considered merely in terms of buffers or positive outcomes.

It should be noted, however, that the relationships found for positive stress and expressed violence are not as strong as the relationships for negative stress. Although many only approached significance, the existence of the trends suggests that positive stress should not be excluded from future research. This is a new area and more study is needed to clarify and understand previous research and the conflicting results which have been found. The relationships themselves do not deserve great weight placed upon them, but do definitely deserve comment and future research.

In speaking to the stress literature, several points are evident in terms of cognitive appraisal. Males and females showed significant relationships between both positive and negative stress and the three types of primary appraisal. However, the strength of some of these relationships may differ. In future research, the strength of the relationships should be examined more closely for sex

differences. For example, the beta coefficients for threat appraisals under positive stress were stronger for females than for males. Similarly, negative stress and challenge appraisals were more closely related for females than males. There is no clear reason for such differences in the way males and females perceive stress.

There were, however, gender differences in the relationships between the primary and secondary appraisal variables. For males, harm and challenge appraisals were related to all types of perceived coping resources (secondary appraisals), regardless of whether the impact of the stressors was perceived of as positive or negative. The only exception was with positive stressors; appraising them as challenges was not significantly related to acceptance of the stressors. For females, however, the primary appraisal of harm to a loved one was related only to the coping resources of knowing more and holding back for both positive and negative stress. As with males, all four types of secondary variables were significantly related to events considered as challenges for females whether they were experiencing positive or negative stress. Thus, for females it seems that when an event may have implications of harm or loss to a loved one, knowing more information and holding back are important. For the primary appraisal of stressors as threats to the self, males and females were more similar in that they both consider holding back important. The

differences appear to be when the perception of this resource is important. For males' positive stress, and females' negative stress, holding back is the only type of secondary appraisal which shows a relationship with threats to the self. However, with males' negative stress and the appraisal of the events as having the potential to harm a loved one, secondary appraisal was unimportant. On the other hand, females' positive stress with events appraised as being threatening to self, two types of secondary appraisal (acceptance and holding back) were important. Therefore, the perception of an event as positive or negative affects decisions regarding perceived coping resources differently depending upon the sex of the subject.

Sex differences were also evident in the relationships of secondary appraisal to either threats of violence or actual violence. For males' negative stress, the perceived coping resource of needing to know more was negatively related to the expression of threats of violence. Positive stressors for males showed a positive relationship between holding back and expressing threats of violence. Therefore, the more negative stressors males experienced about which they felt the need to know more information, the fewer threats of violence they expressed. When experiencing positive stress, however, males feeling as if they had to hold themselves back was related to a greater expression of threats. Among females, there were no relationships for

positive stressors and either threats of violence or actual violence. For females' negative stressors, however, the perceived coping resource of acceptance was positively related to expression of violence for females. Thus, the more negative stressors females experienced and felt they had to accept, the more likely they were to express violence toward their partner.

Overall, primary appraisal in terms of an event considered to be challenging, seems to be related to secondary appraisal in similar ways for males and females whether it is positive or negative stress. Differences appear, however, when looking at males and females perceptions of harm to a loved one and perceived coping resources. Perception of possible harm or loss to a loved one have different relationships to perception of coping resources for males and females. These differences remain evident whether the events being experienced are positive or negative. In terms of support for the importance of secondary appraisal, it seems that negative stress has a clearer relationship than positive stress to threats and actual violence.

These findings address the cognitive appraisal theory posited by Folkman et. al (1986) and Lazarus and Launier (1978). Previously, research has attempted to relate cognitive appraisal only to an individual's coping process. The number of events that were examined in Folkman et. al's

(1986) research was limited to a total of five events over a four month period. This does not allow for a comprehensive examination of the possible mediational process that cognitive appraisal may have. As shown by the results of this study, cognitive appraisal may have some mediational possibilities in terms of the model and paths examined.

Conclusions

Four major issues were raised by this study. These issues are a function of the results and the shortcomings of the project. The first issue has to do with the demonstration of similarities between the effects of positive and negative stress and their similar relationships to cognitive appraisal, and the outcome variable (violence). Although many of the findings were only trends, this study shows that positive stressors, as defined by the individual, should not be ignored in either the stress or violence literatures.

A second issue concerns the theory of cognitive appraisal. Previous empirical testing of this theory has been limited. The results of this research indicate that different relationships may exist between primary and secondary appraisal of events for males and females. Additionally, these relationships appear to be affected by whether events are considered to have a positive or negative impact on individuals. More research needs to be done to help determine the potential mediational capabilities of

cognitive appraisal not only as it relates to the stress and violence literature, but in other areas as well.

A third issue concerns the findings regarding the expression of violence. Violence has not been previously differentiated in terms of threats of violence and actual violence. It was shown that separating threats from acts of violence allows for clearer information in terms of the effects stressors may have in contributing to the expression of violence. Correlations for stress with threats and acts of actual violence were lower in this study than in previous studies using the scale (Marshall & Rose, 1987; 1990; Parra, 1990). These differences need to be examined in more detail, as the sample was very similar to previous samples.

Finally, it is possible that another model may offer a more likely explanation. After examination of the findings, several other hypotheses are offered for future exploration and study. The number of events was not a factor in this model except insofar as sums were used. It is likely that the number of events affects an individual's appraisal of those events. If this was the case, perhaps impact (positive or negative) would be the result of an individual's appraisals, not a determining factor. Other variables may also be involved in the appraisal of events. These variables may include actual coping, as has been previously explored, or self-esteem.

This study has many implications for both the stress and violence literature. In turn, many questions remain unanswered. The exploratory nature of this project paves the way for future replication and causal model testing.

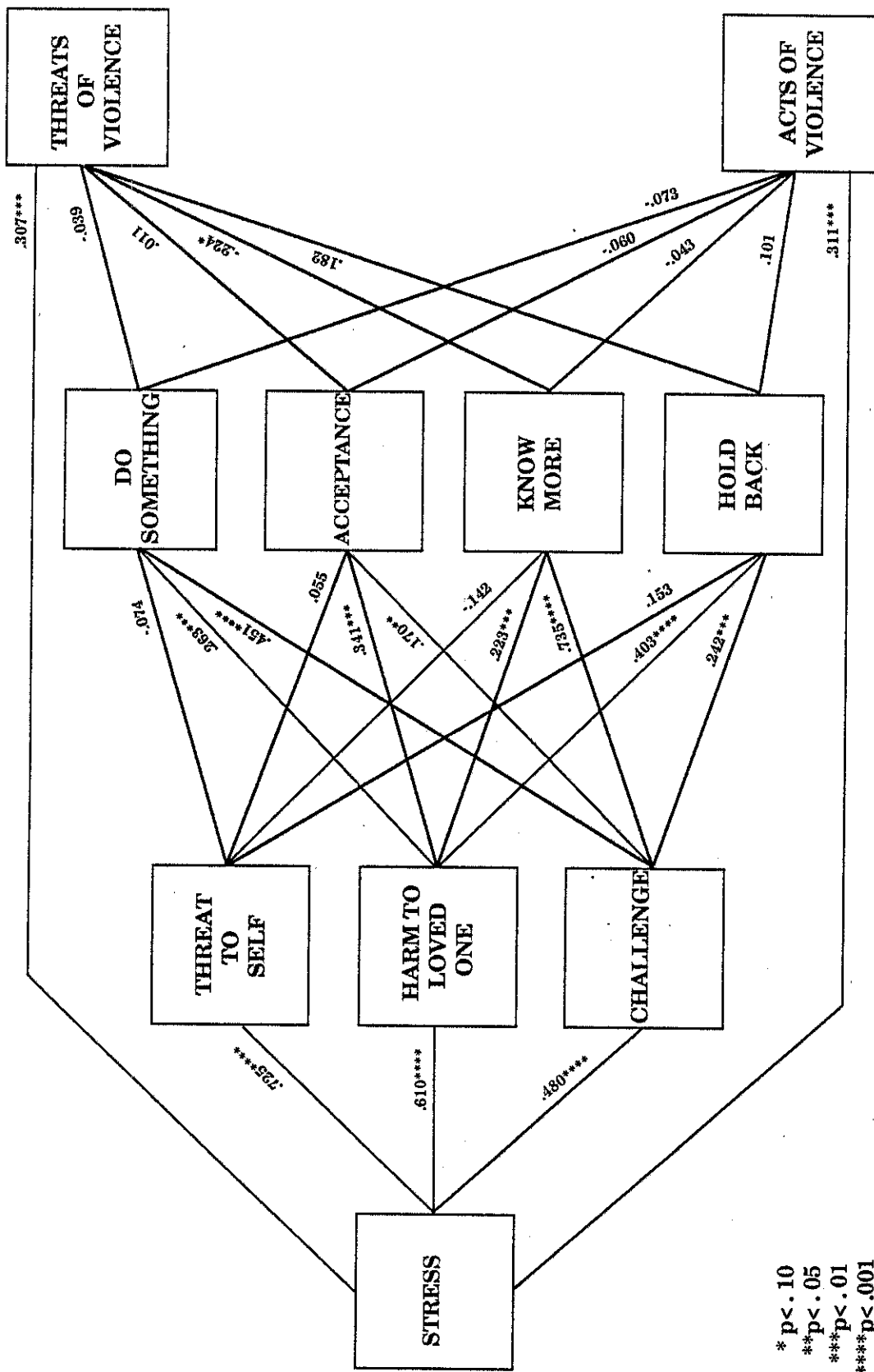


Figure 1. Beta coefficients: negative stress, primary and secondary appraisal, and expressed violence of males.

* p < .10
 ** p < .05
 *** p < .01
 **** p < .001

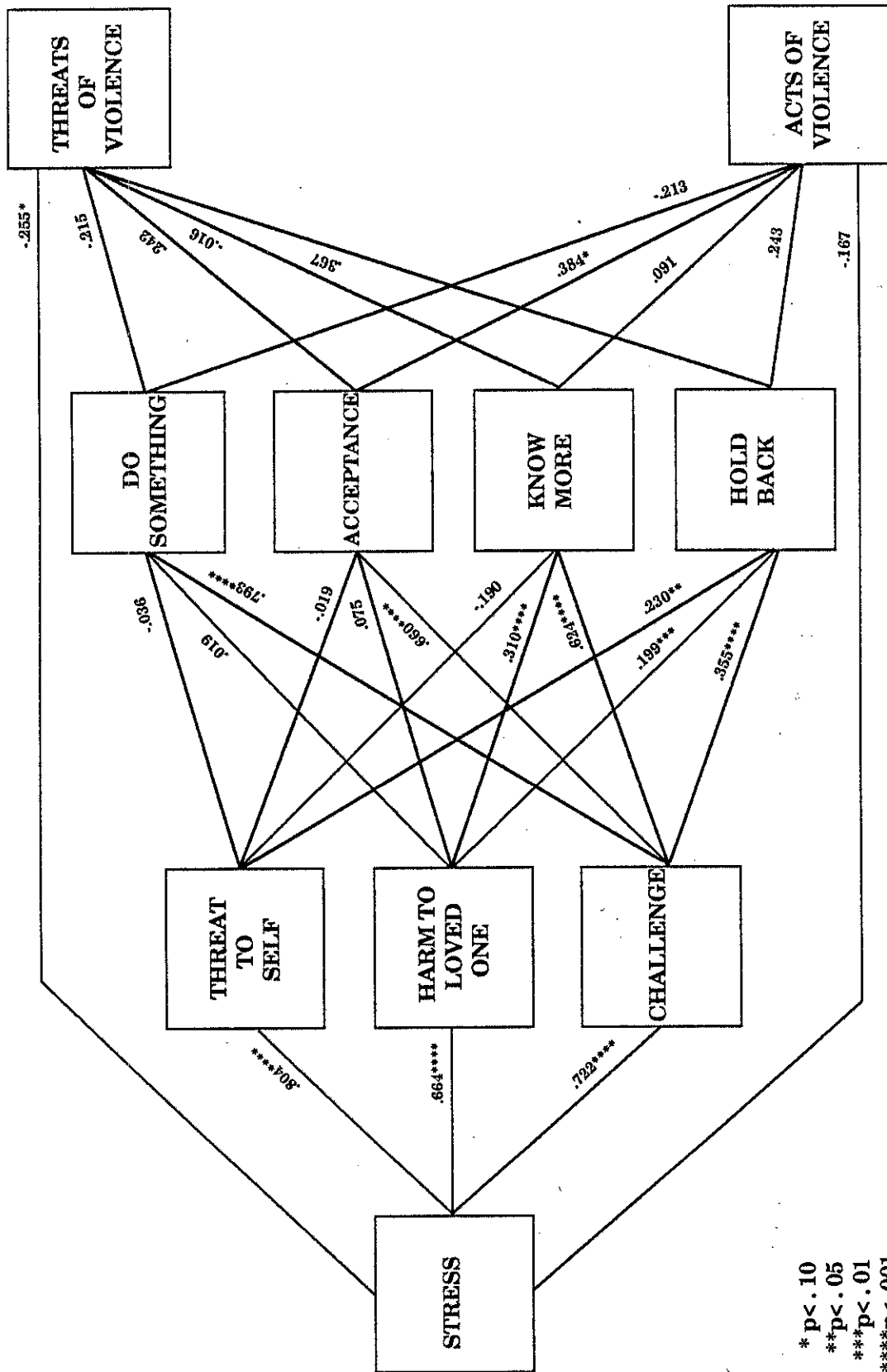


Figure 2. Beta coefficients: negative stress, primary and secondary appraisal, and expressed violence of females.

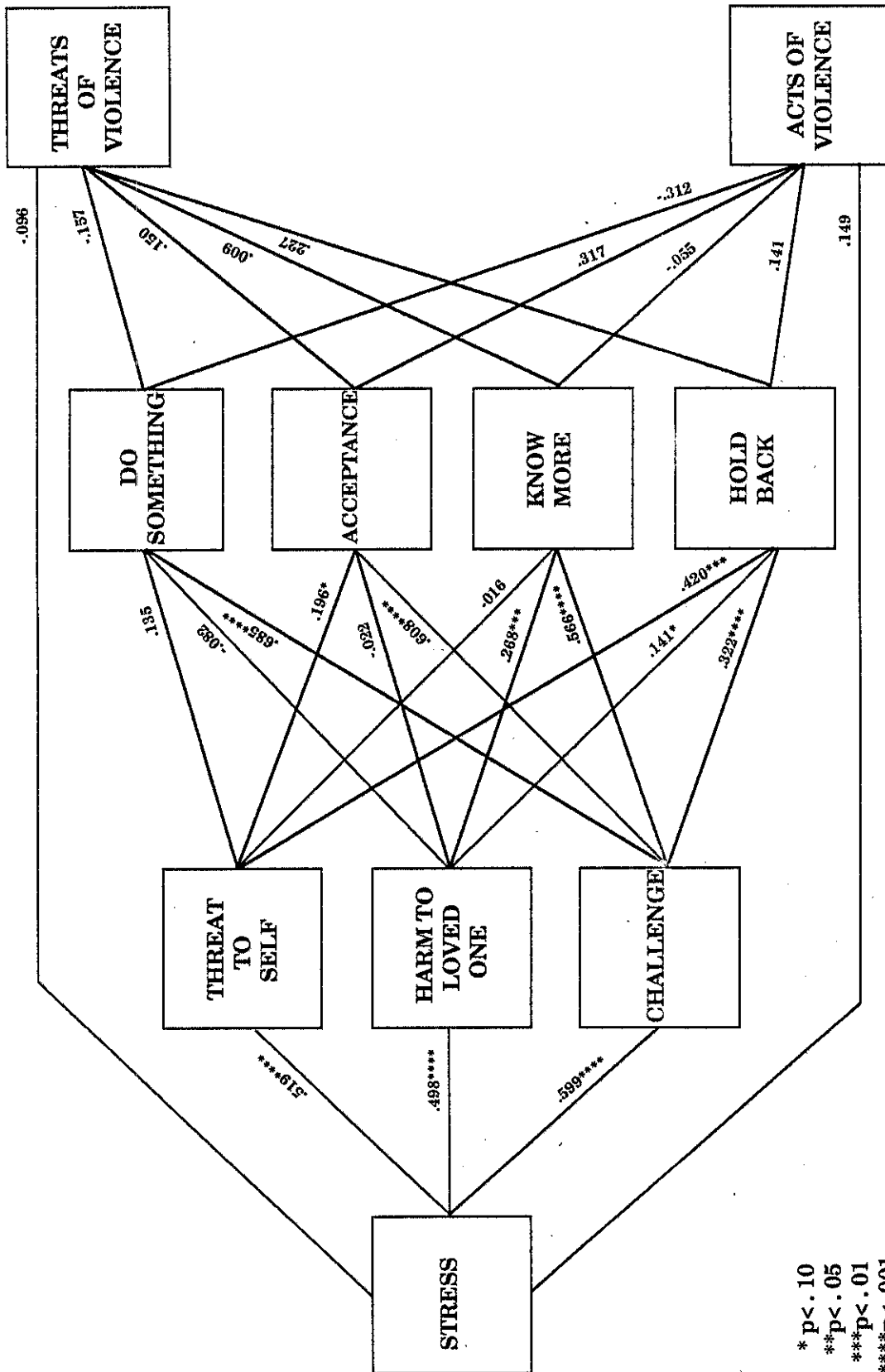
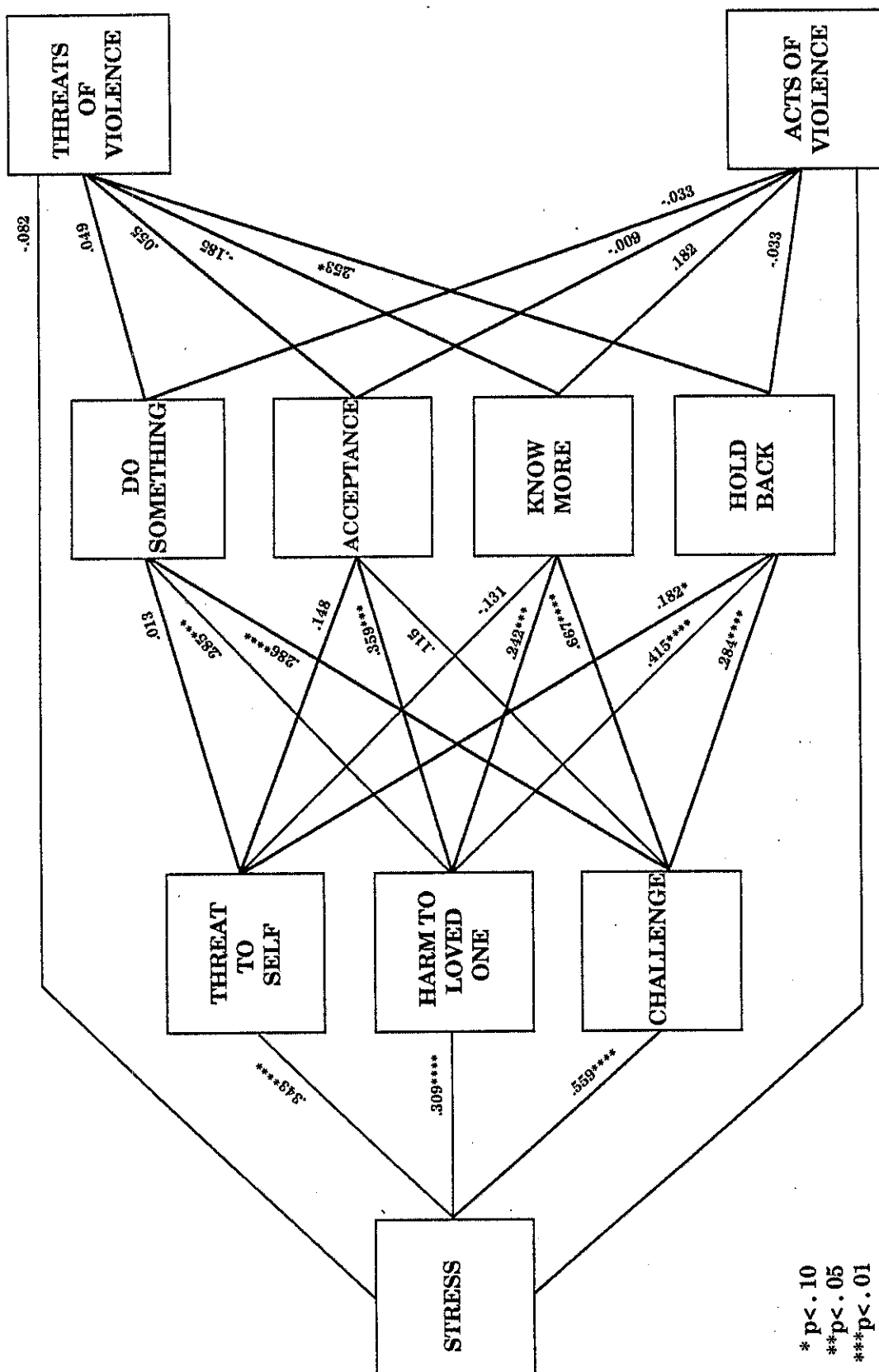


Figure 4. Beta coefficients: positive stress, primary and secondary appraisal, and expressed violence of females.

* p < .10
 ** p < .05
 *** p < .01
 **** p < .001



* p < .10
 ** p < .05
 *** p < .01
 **** p < .001

Figure 3. Beta coefficients: positive stress, primary and secondary appraisal, and expressed violence of males.

APPENDIX A
CONSENT FORM

Informed Consent Form
Stressful Situation Study

The purpose of this research is to try to understand more about stressful and nonstressful situations that occur to individuals, as well as possible outcomes of different stressful or nonstressful events.

Initially you will be asked some questions about yourself and your relationship. Next, you will be asked questions about how you usually cope with or deal with stressful situations. Following this section of the questionnaire, you will be asked to think about stressors that have happened to you in the past or are occurring now. You will rate how positive or negative you felt each event was, and 8 other questions describing how you felt when each event happened. Finally, you will be asked to answer some questions about behaviors that may have occurred in a current or past dating relationship.

You might begin to feel upset while completing the survey. If your feelings start to come out or if you start to feel badly for more than a little while, please talk to me or one of the assistants in room 281. You are free to withdraw without prejudice to you at any time during the survey. If the bad feelings do not go away, the Psychology Clinic in Terrill Hall, or the Counseling and Testing Center in the Union have people trained to help you deal with these feelings.

If you would like to know the results of this study, please leave a note with me in room 281 of Terrill Hall stating that you participated in the Stressful Situations study and an address at which you can be reached in six months or so. If you would just like to talk about the study, I would be glad to hear your reactions. Feel free to come to room 281 Terrell Hall to talk with me. I will not ask you for any information which could identify you as an individual on the questionnaires. This is to ensure you anonymity and the confidentiality of your responses.

Thanks.
Stephanie A. Vitanza

This research has been approved by the University of North Texas Committee for the Protection of Human Subjects.

Informed Consent
Stressful Situations Study

Again, I would like to remind you that should you begin to feel upset while completing this section of the survey please talk to myself or one of the assistants in room 281. If the bad feelings do not go away, go to the Psychology Clinic in Terrell Hall or the Counseling and Testing Center at the University Union. You are still free to withdraw without prejudice to at anytime during this survey. If you would like to talk with me about the project or have any questions or problems, please call me at x4329 or feel free to stop by room 281 Terrill Hall.

Again, your signature below indicates that you understand this form and consent to participate in the second part of the project.

Signature

APPENDIX B
STRESSFUL SITUATIONS SURVEY

STRESSFUL SITUATIONS SURVEY

- (1-4) _____ Write the last 4 digits of your social security/student ID number.
- (5-6) _____ How old are you?
- (7-8) _____ How old is your partner?
- (9) _____ Which sex are you? 1 = male 2 = female
- (10) _____ Race or ethnic group? 1=Anglo 2=Black 3=Hispanic 4=other
- (11-12) _____ How many months have you been in this dating relationship?
- (13-14) _____ How many times in the past year, have you seen a medical doctor?
- (15-16) _____ When you do drink, about how many drinks do you have?
- (17-18) _____ How many times in the last year have you gotten drunk?
- (19-20) _____ When your partner drinks, how many drinks does he/she have?
- (21-22) _____ How many times in the last 1 yr has your partner gotten intoxicated?
- (23) _____ On average, how often do you attend religious services/
related activities?
never attend 1 2 3 4 5 6 7 daily
- (24) _____ How religious do you consider yourself to be?
not at all 1 2 3 4 5 6 7 very religious

(Line 1: col.25-33)

Answer the following questions about yourself.

strongly agree 1 2 3 4 5 6 7 strongly disagree

- _____ On the whole, I am satisfied with myself.
- _____ At times I think I am no good at all.
- _____ I feel that I have a number of good qualities.
- _____ I am able to do things as well as most other people.
- _____ I feel I do not have much to be proud of.
- _____ I certainly feel useless at times.
- _____ I feel that I'm a person of worth, at least on an equal plane with others.
- _____ I wish I could have more respect for myself.
- _____ I take a positive attitude toward myself.

(Line 1: col.34-62)

Mark the following statements to indicate what you usually do when faced with a stressful event.

- never do this 1 2 3 4 5 6 7 almost always do this
- ___ Just concentrated on what I had to next--the next step.
- ___ I did something which I didn't think would work, but at least I was doing something.
- ___ Tried to get the person responsible to change his or her mind.
- ___ Talked to someone to find out more about the situation.
- ___ Criticized or lectured myself.
- ___ Tried not to burn my bridges, but leave things open somewhat.
- ___ Hoped a miracle would happen.
- ___ Went along with fate; sometimes I just have bad luck.
- ___ Went on as if nothing had happened.
- ___ I tried to keep my feelings to myself.
- ___ Looked for the silver lining, so to speak: tried to look on the bright side of things.
- ___ Slept more than usual.
- ___ I expressed anger to the person(s) who caused the problem.
- ___ Accepted sympathy and understanding from someone.
- ___ I was inspired to do something creative.
- ___ Tried to forget the whole thing.
- ___ I got professional help.
- ___ Changed or grew as a person in a good way.
- ___ I apologized or did something to makeup.
- ___ I made a plan of action and followed it.
- ___ I let my feelings out somehow.
- ___ Realized I brought the problem on myself.
- ___ I came out of the experience better than when I went in.
- ___ Talked to someone who could do something concrete about the problem.
- ___ Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, and so forth.
- ___ Took a big chance or did something very risky.
- ___ I tried not to act too hastily or follow my first hunch.
- ___ Found new faith.
- ___ Rediscovered what is important in life.

(Line 1: col.63-80)

never do this 1 2 3 4 5 6 7 almost always do this

- ___ Changed something so things would turn out all right.
- ___ Avoided being with people in general.
- ___ Didn't let it get to me; refused to think about it too much.
- ___ I asked a relative or friend I respected for advice.
- ___ Kept others from knowing how bad things were.
- ___ Made light of the situation; refused to get too serious about it.
- ___ Talked to someone about how I was feeling.
- ___ Stood my ground and fought for what I wanted.
- ___ Took it out on other people.
- ___ Drew on my past experiences; I was in a similar position before.
- ___ I knew what had to be done, so I doubled my efforts to make things work.
- ___ Refused to believe that it had happened.
- ___ I made a promise to myself that things would be different next time.
- ___ Came up with a couple of different solutions to the problem.
- ___ I tried to keep my feelings from interfering with other things too much.
- ___ I changed something about myself.
- ___ Wished that the situation would go away or somehow be over with.
- ___ Had fantasies about how things might turn out.

(Line 2: col.1-3)

- ___ I prayed.
- ___ I went over in my mind what I would say or do.
- ___ I thought about how a person I admire would handle the situation and used that as a model.

**SEE THE DIRECTIONS & EVENTS LIST
FOR THE NEXT QUESTIONS**

(Line 10: col.1-46)

0	1	2	3	4
never	once	a few times	many times	very often

During your relationship how often has your partner:

- _____ hit or kicked a wall, door or furniture
- _____ thrown, smashed or broken an object
- _____ driven dangerously with you in the car
- _____ thrown an object at you
- _____ shaken a finger at you
- _____ made threatening gestures or faces at you
- _____ shaken a fist at you
- _____ acted like a bully toward you
- _____ destroyed something belonging to you
- _____ threatened to harm or damage things you care about
- _____ threatened to destroy property
- _____ threatened someone you care about
- _____ threatened to hurt you
- _____ threatened to kill him/herself
- _____ threatened to kill you
- _____ threatened you with a weapon
- _____ threatened you with a club-like object
- _____ acted like he wanted to kill you
- _____ threatened you with a knife or gun
- _____ held you down pinning you in place
- _____ pushed or shoved you
- _____ shook or roughly handled you
- _____ grabbed you suddenly or forcefully
- _____ scratched you
- _____ pulled your hair
- _____ twisted your arm
- _____ spanked you
- _____ bit you
- _____ slapped you with the palm of his/her hand
- _____ slapped you with the back of his/her hand
- _____ slapped you around your face and head
- _____ hit you with an object
- _____ punched you
- _____ kicked you
- _____ stomped on you
- _____ choked you
- _____ burned you with something
- _____ used a club-like object on you
- _____ beat you up
- _____ used a knife or gun on you
- _____ demanded sex whether you wanted it or not
- _____ made you have oral sex against your will
- _____ made you have sexual intercourse against your will
- _____ physically forced you to have sex
- _____ made you have anal sex against your will
- _____ used an object on you in a sexual way

(Line 11: col.1-46)

0	1	2	3	4
never	once	a few times	many times	very often

During your relationship how often have you:

- _____ hit or kicked a wall, door or furniture
- _____ thrown, smashed or broken an object
- _____ driven dangerously with him/her in the car
- _____ thrown an object at him/her
- _____ shaken a finger at him/her
- _____ made threatening gestures or faces at him/her
- _____ shaken a fist at him/her
- _____ acted like a bully toward him/her
- _____ destroyed something belonging to him/her
- _____ threatened to harm or damage things he/she cared about
- _____ threatened to destroy property
- _____ threatened someone he/she cared about
- _____ threatened to hurt him/her
- _____ threatened to kill yourself
- _____ threatened to kill him/her
- _____ threatened him/her with a weapon
- _____ threatened him/her with a club-like object
- _____ acted like you wanted to kill him/her
- _____ threatened him/her with a knife or gun
- _____ held him/her down pinning them in place
- _____ pushed or shoved him/her
- _____ shook or roughly handled him/her
- _____ grabbed him/her suddenly or forcefully
- _____ scratched him/her
- _____ pulled his/her hair
- _____ twisted his/her arm
- _____ spanked him/her
- _____ bit him/her
- _____ slapped him/her with the palm of your hand
- _____ slapped him/her with the back of your hand
- _____ slapped him/her around their face and head
- _____ hit him/her with an object
- _____ punched him/her
- _____ kicked him/her
- _____ stomped on him/her
- _____ choked him/her
- _____ burned him/her with something
- _____ used a club-like object on him/her
- _____ beat him/her up
- _____ used a knife or gun on him/her
- _____ demanded sex whether he/she wanted it or not
- _____ made him/her have oral sex against their will
- _____ made him/her have sexual intercourse against their will
- _____ physically forced him/her to have sex
- _____ made him/her have anal sex against their will
- _____ used an object on him/her in a sexual way

APPENDIX C
INSTRUCTIONS FOR SUBJECT

DIRECTIONS**DIRECTIONS FOR THE BLANK PAGES MARKED
"ANSWER SHEET"**For Column A: Event

1. Read through #1-70. Write the number of each event that has happened to you in the past ONE YEAR in column A.
2. Now read through #71-156. Write the number of each event that has happened to you in the past ONE MONTH in column A (right after the numbers you wrote down in step 1 above).

FOR EXAMPLE: If only events 2, 14, 56, and 114 happened to you, you would write these numbers all in a row starting with the first blank in column A without skipping any spaces. These numbers do not have to be consecutive.

3. After you have listed all the events that happened to you, go on and answer ALL of the next questions (columns B through I) for each particular event that you wrote down.

For Column B: -/+

Indicate the extent to which you viewed the event as either negative or positive at the time it happened to you.

-3	-2	-1	0	+1	+2	+3
extremely negative			neutral			extremely positive

For Column C: Threat

How threatening was this event to you?

1	2	3	4	5	6	7
not at all threatening						extremely threatening

For Column D: Harm

How much harm or loss occurred to a loved one due to this event?

1	2	3	4	5	6	7
not at all harmful						extremely harmful

For Column E: Challenge

How challenging was this event to you?

1	2	3	4	5	6	7
not at all challenging						extremely challenging

For Column F: Do Something

Rate the extent to which you felt this event was:

One in which you could do something about?

does not apply 1 2 3 4 5 applies a great deal

For Column G: Accept

Rate the extent to which you felt this event was:

One that you had to accept?

does not apply 1 2 3 4 5 applies a great deal

For Column H: Know More

Rate the extent to which you felt this event was:

One in which you needed to know more before you acted?

does not apply 1 2 3 4 5 applies a great deal

For Column I: Hold Back

Rate the extent to which you felt this event was:

One in which you had to hold yourself back from doing what you wanted?

does not apply 1 2 3 4 5 applies a great deal

WHEN YOU HAVE FINISHED STEPS A-I FOR EACH EVENT THAT HAPPENED TO YOU, RETURN TO PAGE 6 AND COMPLETE THE SURVEY.

APPENDIX D
LIFE EVENT LIST

EVENTS LIST

Write the number of each event that has happened to you in the past ONE YEAR in column A.

1. Marriage
2. Detention in jail or comparable institution
3. Death of partner
4. Major change in sleeping (much more or much less sleep)
Death of a close family member:
 5. mother
 6. father
 7. brother
 8. sister
 9. grandmother
 10. grandfather
 11. other family member
12. Major change in eating habits (much more or much less food intake)
13. Foreclosure on mortgage or loan
14. Death of a close friend
15. Outstanding personal achievement
16. Minor law violations (traffic tickets, disturbing the peace, etc.)
17. Male only: Wife/girlfriend's pregnancy
18. Female only: Pregnancy
19. Changed work situation (different work responsibility, major change in working conditions, working hours, etc.)
20. New job
Serious illness or injury of close family member:
 21. father
 22. mother
 23. sister
 24. brother
 25. grandfather
 26. grandmother
 27. spouse
 28. other family member
29. Sexual difficulties
30. Trouble with employer (in danger of losing job, being suspended, demoted, etc.)
31. Trouble with in-laws
32. Major change in financial status (a lot better off or a lot worse off)
33. Major change in closeness of family members (increased or decreased closeness)
34. Gaining a new family member (through birth, adoption, family member moving in, etc.)
35. Change of residence

36. Marital separation from mate (due to conflict)
 37. Major change in church activities (increased or decreased attendance)
 39. Marital reconciliation with mate
 40. Major change in number of arguments with partner (a lot more or a lot less arguments)
 41. Married male: Change in wife's work outside the home (beginning work, ceasing work, changing to a new job, etc.)
 42. Married female: Change in husband's work (loss of job, beginning new job, retirement, etc.)
 43. Major change in usual type and/or amount of recreation
 44. Borrowing more than \$10,000 (buying a home, business, etc.)
 45. Being fired from job
 46. Male: Wife/girlfriend having an abortion
 47. Female: Having abortion
 48. Major personal illness or injury
 49. Major change in social activities, e.g., parties, movies, visiting (increased or decreased participation)
 50. Major change in living conditions of family (building new home, remodeling, deterioration of home, neighborhood, etc.)
 51. Divorce
 52. Serious injury or illness of close friend
 53. Retirement from work
 54. Son or daughter leaving home (due to marriage, college, etc.)
 55. Ending of formal schooling
 56. Separation from spouse (due to work, travel, etc.)
 57. Engagement
 58. Breaking up with boyfriend/girlfriend
 59. Leaving home for the first time
 60. Reconciliation with boyfriend/girlfriend
 61. Beginning a new school experience at a higher academic level (college, graduate school, professional school, etc.)
 62. Changing to a new school at same academic level (undergraduate, graduate, etc.)
 63. Academic problem
 64. Being dismissed from dormitory or other residence
 65. Failing an important exam
 66. Changing a major
 67. Failing a course
 68. Dropping a course
 69. Joining a fraternity/sorority
 70. Financial problems concerning school (in danger of not having sufficient money to continue)
- Write the number of each event that has happened to you in the past ONE MONTH in column A (right after the numbers you wrote down from above)
71. Went to a stimulating class/seminar
 72. Homework assignments became extra heavy

73. Passed a course
74. Had to miss class(es) because of family or work demands
75. Were late in registering for a class
76. Obtained convenient class schedule
77. Did poorly on important test
78. Could not pay school tuition when due
79. Excluded from participation in a valuable course
80. Got a good grade on a difficult test
81. Completed work on an interesting school project
82. Went to a sporting event
83. Called off a planned weekend (or longer) vacation
84. Acquired a pet
85. Took up a hobby or other recreational activity
86. Went on a vacation (for weekend or longer)
87. Pet very sick, and needed extra attention
88. Visited a gallery or museum
89. Went shopping for pleasure
90. Stopped participation in a hobby, sport, or other recreational activity
91. Went to club or other organized group meeting
92. Took a pleasurable trip (to the beach, a drive in the country, etc.)
93. Observed a religious holiday
94. Had to attend a funeral service
95. Could not see a priest/rabbi/minister when asked to see them
96. Broke an important rule or commandment of religion
97. Attended a particularly satisfying religious program or service
98. Got a traffic ticket for a moving violation
99. Found a new convenient parking place
100. Car/bike broke down
101. There was an improvement in public transportation used
102. Got a parking ticket
103. Public transportation used broke down or stopped running
104. Home has too little heat for a day or more
105. Had to wait a long time for repair person to arrive at your home
106. Water damage to home from leaks
107. Household appliance broke down or stopped running well
108. Neighbor noise disrupted sleep
109. Repair person or apt. super failed to fix something properly
110. Elevator broke down
111. Bought needed household appliance
112. Amount of living space in the home was increased
113. Plumbing broke down
114. Locked out of home
115. Finished big cleaning job in the house
116. Household item (glass, dish, etc.) broke

117. Saw unwanted household pests (roaches, mouse, spider, etc.)
118. Amount of living space in the home was reduced
119. Built or repaired something for house/family
120. Home has too much heat for a day or more
121. Had arguments with family member (not spouse/mate or child)
122. Received a gift from a family member (not spouse/mate or child)
123. Saw or heard parents fight
124. Criticized or blamed for something by family member (not s/m or c)
125. Helped member of family (besides s/m or c) with a personal problem
126. Praised by family member (not s/m or c)
127. Talked with family member (not s/m or c) that had not seen for long time

128. Forced to visit with family member (not s/m or c) when did not want to
129. Expressed love to your partner
130. Argued with your partner on something other than care of children
131. Were critical of your partner
132. Received a special gift/present from your partner
133. Disagreed with your partner on care of children
134. Your partner was away from home overnight unexpectedly
135. Your partner stopped being affectionate for a day or more
136. Criticized by your partner
137. Saw your partner flirt with another person
138. Praised by your partner
139. Celebrated special occasion with your partner
140. Had long conversation with your partner
141. Made a new friend/acquaintance
142. Friend/acquaintance did not return call
143. Received a compliment from a friend/acquaintance
144. Close friend(s) left neighborhood
145. Went out with friend(s) (party, dance, movie, night club, etc.)
146. Invited out by friends/acquaintance unexpectedly
147. Kissed and/or had other pleasing physical contact with friend/acquaintance
148. Friend/acquaintance fails to show up for scheduled meeting
149. Not invited to a party given by friends
150. Criticized by friend/acquaintance
151. Played a sport or game with friend(s)
152. Argued with a friend/acquaintance
153. Spouse/mate had argument with friend/acquaintance
154. Had a party or social gathering
155. Met an unfriendly (or rude) person
156. Began involvement in a political group or organization

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