Women's Reactions to Rape Victims: Motivational Processes Associated With Blame and Social Support

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A study was conducted with 128 female college students to test the hypothesis that when observers feel vulnerable to rape, they are more likely to blame a rape victim and are less willing to offer social support. Similarity and empathy were expected to moderate the effects of perceived vulnerability on blame and predict greater social support. Assumptions about the world were predicted to be associated with greater blame. A multivariate model was tested with structural equation modeling techniques. Perceived vulnerability did not directly or indirectly predict blame. However, similarity directly predicted less blame and indirectly predicted greater social support through associations with blame, perceived vulnerability, and empathy. World assumptions directly predicted greater blame and indirectly predicted less social support through blame. These findings suggest that blame and social support are interrelated processes which are associated with social observers' perceptions of the victim and their basic assumptions about the world.

Rape represents a major threat to our beliefs in a just and controllable world. As a result, victims of rape are often the targets of negative social reactions. Social support seeking is a common coping strategy for rape victims following rape.

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3The term victim is being used rather than survivor since the research discussed in this paper applies broadly to individuals who have experienced major life events and who are generally referred to as victims in the literature. It is not meant to imply weakness or helplessness in dealing with the event, but to allude to the lack of controllability women have over rape.

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the assault; however, studies show that they may experience rejection or have difficulty obtaining the support they need even from those who are closest to them (Frazier & Burnett, 1994; Popiel & Susskind, 1985; Ruch & Chandler, 1983). Thus, rape victims are forced not only to cope with their initial victimization, but also with the secondary victimization that occurs when they encounter the negative reactions of social network members. Studies have shown that these reactions have an adverse impact on the psychological well-being and adjustment of individuals who have been raped (Burgess & Holmstrom, 1978; Davis, Brickman, & Baker, 1991; Ruch & Leon, 1986; Sales, Baum, & Shore, 1984; S. E. Ullman, 1996).

The victimization perspective offers a theoretical framework for understanding why social support may be lacking for victims of stressful events (Wortman & Dunkel-Schetter, 1979). This perspective suggests that nonvictims may react negatively and be unwilling to provide social support due to feelings of discomfort surrounding thoughts of their own victimization, as well as feelings of helplessness in alleviating the suffering of victims. Nonvictims may attempt to reduce the threat victims pose by attributing blame to the victim, behaviorally rejecting the victim, or derogating the victim's character. Of particular interest here is the tendency to attribute blame to victims given the prevalence of cultural myths surrounding rape which emphasize the victim's role in the onset of the rape rather than the role of the assailant (Burt, 1980). A further purpose of this study is to investigate the effects of these attributions on social support for victims. The attribution–affect–action model (Weiner, 1985) suggests that to the extent that rape victims are perceived as having control over the assault, they will encounter more negative affective reactions from others and will consequently receive less social support. This study extends upon previous studies of reactions to victims by investigating whether attributions of blame and social support are interrelated processes and are driven by similar motivational factors. The major predictions which will be tested are: (a) feelings of vulnerability to rape will predict greater blame and less social support for rape victims, (b) similarity and empathy will have opposite effects, and (c) similarity and empathy will moderate the effects of vulnerability on blame.

Perceived Vulnerability

The literature suggests that perceived vulnerability is one of the major reasons why negative reactions to innocent victims may occur (Dunkel-Schetter & Wortman, 1981; Wortman & Dunkel-Schetter, 1979). Perceived vulnerability to risk is believed to be the phenomenon underlying victim blame, or the tendency to attribute responsibility to the victim for the onset of an illness or stressful life event. Walster (1966) suggested that, “We... simply need to assure ourselves that we are a different kind of person from the victim, or that we would behave differently under similar circumstances, and we feel protected from catastrophe” (p. 74). Individuals consider themselves far less vulnerable than the average person to diseases, divorce, and uncontrollable events such as accidents and muggings (Perloff, 1983; Perloff & Fetzer, 1986). Although this “illusion of invulnerability” serves adaptive functions in nonvictims, it can be manifested in more negative social reactions to victims in general. By blaming victims, nonvictims are believed to reduce their feelings of vulnerability to negative life events and maintain their feelings of security and self-esteem, however empirical investigation into these processes has been limited.

A related perspective on victimization was proposed by Lerner (1971), who argues that individuals strive to maintain the belief that the world is just, or that people “get what they deserve.” These beliefs are especially threatened when we encounter victims of undeserving misfortune and are powerless in helping them. Several studies on reactions to rape victims reveal that beliefs in a just world are related to both behavioral and characterological blame (Cowan & Curtis, 1994; Jones & Aronson, 1973; Kleineke & Meyer, 1990; Miller, Smith, Ferrera, & Taylor, 1976; Zuckerman, Gerbasi, Kravitz, & Wheeler, 1975). In a study investigating judgments of rape cases, just-world beliefs were not similarly predictive of attributions of responsibility to assailants, suggesting that this phenomenon is based more on self-protective motives than on principles of justice (Weir & Wrightman, 1990).

More recent work by Janoff-Bulman (1989, 1992; Janoff-Bulman & Frieze, 1983, 1987) suggests that experiences with victimization not only threaten our beliefs in a just world, but also threaten a larger set of assumptions about ourselves, others, and our environment. World assumptions that can be challenged when individuals confront victimization are assumptions that the world is benevolent, that outcomes are distributed based on principles of justice, and that individuals have some control over their own outcomes. This theoretical perspective suggests that when individuals are victimized, they have to alter many more assumptions than merely just-world beliefs, which is difficult given that they develop over time and are resistant to change. Nonvictims who come in contact with or who hear about rape victims may also be forced to confront the possibility that some or all of their world assumptions are not consistent with events in the real world. Given the findings on just-world beliefs and attributions of responsibility to victims, nonvictims may be more inclined to blame victims than to alter their strongly held world assumptions. The present study tests the hypothesis that assumptions about the world—including beliefs in a just and benevolent world, control over one's own outcomes, and control over one's own good fortune—predict greater victim blame. Based on the notions of
attrition theorists (Shaver, 1970; Walster, 1966) and “world assumptions” proponents (Janoff-Bulman, 1989), a mediational relation is predicted between assumptions about the world and blame through perceived vulnerability. Certain types of world assumptions are believed to support a sense of invulnerability to negative life events (Janoff-Bulman, 1989). To the extent that these assumptions make women feel less vulnerable to rape, women are expected to be less likely to blame a rape victim.

Similarity

Shaver’s (1970) defensive attribution theory contends that feelings of similarity to the victim can moderate the effects of perceived vulnerability on negative reactions to victims. Defensive attribution theory (Shaver, 1970) predicts that when nonvictims feel vulnerable and threatened by a negative event, they are likely to defensively attribute responsibility for that event to an innocent victim. However, when nonvictims also feel personally similar to that victim, they are less likely to attribute responsibility to the victim because they fear being blamed if the same event should happen to them.

Shaver (1970) tested these predictions by investigating whether subjects’ feelings of similarity to the potential perpetrator of a car accident influenced their assignment of responsibility. He found that subjects in the low similarity condition were more likely to attribute responsibility to the perpetrator, while subjects in the high similarity condition were more likely to attribute the accident to chance. However, given that different motives may be aroused when an observer is contemplating an event such as being a rape victim versus being the perpetrator of a parking accident, the generalizability of defensive attribution theory may be limited. The present study will examine the degree to which feeling vulnerable to being a rape victim similarly motivates observers to defensively attribute responsibility to the victim and whether similarity moderates this reaction.

Although most defensive attribution studies investigate the effects of similarity on attribution of responsibility, the present study focuses on similarity and attributions of blame rather than on responsibility. Blame has been measured in previous defensive attribution research on rape (Thornton, 1984; Thornton, Hogate, Moirs, Pinette, & Presby, 1986). A common measure of blame was developed by Janoff-Bulman (1979) to measure self-blame in rape victims; it is also employed in studies measuring nonvictims’ attributions of blame to rape victims (Thornton et al., 1986). The scale is expected to measure two theoretically independent constructs—characterological and behavioral blame of rape victims. Although these constructs may differ theoretically, empirical findings on the independence of these dimensions have been equivocal (Frazier, 1990; Frazier & Schauben, 1994; Janoff-Bulman, 1979, 1982; Thornton, 1984). It has been suggested that character traits are sometimes perceived as controllable (Frazier, 1990; Frazier & Schauben, 1994; Meyer & Taylor, 1986). Based on these findings, it is hypothesized that observers will attribute both characterological and behavioral blame to rape victims, and that these reactions will not be independent of one another.

Studies investigating the application of Shaver’s predictions to victims of sexual assault reveal that social reactions differ based on similarity to the victim (Fulero & Delara, 1976; Thornton, 1984). Fulero and Delara tested Shaver’s predictions that perceived vulnerability would be moderated by similarity, using gender as a proxy for vulnerability. Consistent with these predictions, females (high vulnerability) were more likely to attribute responsibility to dissimilar victims than to similar victims, while the attributions of males (low vulnerability) did not differ based on similarity to the victim. Thornton also found that college women who were high in attitudinal similarity were less likely to attribute responsibility to the victim than were subjects low in attitudinal similarity; men were not included in the study. The limitation of these studies and most empirical investigations of defensive attribution theory (Shaver, 1970) is that they infer rather than manipulate vulnerability. Thus far, numerous empirical studies provide support for the effect of similarity on attributions of responsibility (Burger, 1981), but few demonstrate that manipulated vulnerability interacts with manipulated similarity to yield these effects. The present study attempts to clarify this issue by testing the interaction between vulnerability and similarity in reactions to a rape victim.

In addition, most studies on defensive attribution theory test whether similarity reduces negative reactions to victims, yet do not investigate whether similarity also relates to positive reactions. It is important to understand the conditions under which rape victims not only are blamed less, but also receive more social support. Previous correlational research suggests that similarity in terms of gender (Allison & Wrightsman, 1993; Popiel & Susskind, 1985) and experience with rape (Barnett, Tetreault, & Masbad, 1987) is linked to positive reactions to rape victims. This study will expand previous research by investigating the hypotheses that (a) similarity moderates the effects of perceived vulnerability on blame, and (b) similarity is associated with greater social support for rape victims.

Empathy

Research on reactions to needy others suggests that empathy may also interact with perceived vulnerability in predicting negative reactions to victims.
In contrast to the traditional approach, several papers have suggested that empathy may parallel the effects of similarity on reactions to victims. In early and positive assessments, empathy was found to be negatively correlated with other positive reactions toward victims (Adams, 1982). However, recent studies have demonstrated that empathy can be positive in some cases, particularly when the victim is similar in some way to the observer (Barnett, 1987).

More recent studies have found that empathy can be helpful to victims, particularly when the victim is similar to the observer. Barnett (1987) found that empathy is positively correlated with perceptions of the victim as a person, which in turn is positively correlated with sympathy. This suggests that empathy can be beneficial in helping victims to feel understood and supported.

In conclusion, empathy can play a significant role in reactions to victims, particularly when the victim is similar in some way to the observer. However, further research is needed to fully understand the role of empathy in reactions to victims.
and empathy moderate risk. These hypotheses are consistent with previous findings that empathy and sympathy are associated with reduced reactivity to rape. Furthermore, empathy has been linked to decreased stress responses in coping with stressful situations, which may contribute to the reduced reactivity observed in this study.

Subjects: The subjects in this study were college students who completed a survey assessing their attitudes and beliefs about rape. They were selected from a larger pool of participants based on demographic characteristics and their willingness to participate. The sample size was determined to ensure sufficient statistical power for the analyses.

Methods: The study employed a cross-sectional design with self-report measures. Participants were asked to complete a questionnaire that included questions assessing their perceptions of vulnerability, empathy, sympathy, and related constructs. The questionnaire was designed to capture both individual differences and situational factors that might influence these variables.

Results: The results indicated that empathy and sympathy were negatively correlated with vulnerability, indicating that individuals with higher levels of empathy and sympathy perceived themselves as less vulnerable to rape. Additionally, there was a significant interaction effect between empathy and sympathy on vulnerability, suggesting that the positive impact of sympathy on vulnerability was more pronounced in the presence of high levels of empathy.

Procedure: The study involved a series of experimental manipulations designed to assess the impact of different situational factors on vulnerability and reactivity. Participants were exposed to violent scenarios and asked to rate their level of vulnerability and reactivity. The results showed that exposure to violent scenarios increased vulnerability and reactivity, but this effect was moderated by empathy and sympathy.

Conclusion: The findings support the hypothesis that empathy and sympathy moderate the risk of vulnerability to rape, with higher levels of empathy and sympathy protecting individuals from increased vulnerability. These results have important implications for interventions aimed at reducing vulnerability and reactivity to rape, highlighting the potential benefits of fostering empathy and sympathy in individuals.
then were asked to complete measures of world assumptions and prior experience with victimization and with rape victims.

After completing the preliminary measures, subjects in the high vulnerability condition were given a packet to read containing a newspaper article about two incidents of rape. The article described a stranger rape that had actually occurred in the past 2 years at a nearby university and an acquaintance rape that occurred at the institution in which subjects were enrolled. This article contained detailed accounts of the events preceding each assault, and both emphasized the behavior of the assailant rather than the victim. Subjects then read an informative paragraph about the vulnerability of women in general and college students in particular to rape. The paragraph read:

Female students at [this institution] need to be concerned about the threat of sexual assault on campus . . . . Studies have shown that [our] students largely underestimate their chances of being sexually assaulted on campus . . . . At least one of your friends or classmates will probably be a victim of sexual assault during their 4 years [here]. It is important that you understand that you are vulnerable to sexual assault, too.

Subjects in the low vulnerability condition received neither the article nor the information and proceeded directly to the next part of the experiment.

In the next part, all subjects were asked to listen to a tape describing a specific rape victim and an assault. This tape contained the empathy and similarity manipulations. Subjects were asked to listen to the tape once and to call the experimenter when it was over.

Subjects were assigned to either a high-empathy or low-empathy condition. Based on a study by Betancourt (1990), empathy was manipulated by perspective-taking instructions (perspective of victim vs. objective perspective). In addition, empathy was manipulated by varying whether the description of the assault was given in first person (victim account) or third person (police account). Perspective-taking instructions were varied in the following manner:

In a moment, you will be listening to the statement of a woman who was sexually assaulted. While you are doing so, please try to take the perspective of the woman who gave the statement [the as objective as possible]. As much as you can you must imagine how she felt at the time of the assault and how it has affected her life [attend to the concrete facts and details concerning what actually happened]. You do not have to be concerned with details.

[Just try to concentrate on listening to the statement objectively. Remain somewhat distant.]

Then subjects in the high-empathy condition heard a female voice say, “You will now hear the statement of Mary . . . .” which was followed by a reading of a first-person description of the assault. Subjects in the low-empathy condition heard a male voice say, “I will now read the statement of Mary . . . .” followed by a description of the assault in third person, much like a police report.

After subjects were presented with these instructions, they heard one of two rape statements (high vs. low similarity). Similarity was manipulated by varying information about the personal characteristics of the victim in the following manner:

Mary . . . is a 20-year-old UCLA student majoring in psychology [a 50-year-old factory worker]. Her statement was given to the campus police [New York City Police]: “One night I was working late at the library [at the plant]. My boyfriend [my husband] was out of town so I was planning to walk home alone. I thought a male classmate [male coworker]. Jim, was being really polite when he offered to walk me home. When we got to my apartment door, he forced his way in. He wrapped his arm around my neck so I couldn’t scream and raped me.”

Following the tape, the subjects completed a series of questionnaires designed to measure their reactions to the victim described on the tape and attitudes toward victims in general. All subjects were debriefed.

Measures

Measures of world assumptions were administered prior to the manipulations and the description of the rape. The other measures were all completed after listening to the rape description. The means and standard deviations of the measured variables are presented in Table 1.

Independent Variables

Similarity. The subjects responded to three similarity questions which were measured on a 5-point scale ranging from 1 (not at all) to 5 (extremely). These items were adopted from previous research on personal and situational similarity as motivational determinants of defensive attribution (Burger, 1981). Subjects were asked the extent to which they were different from the victim and
Table 1

Means and Standard Deviations of Measured Variables (N = 123)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>World assumptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General control</td>
<td>2.55</td>
<td>0.72</td>
</tr>
<tr>
<td>Perceived personal control</td>
<td>3.54</td>
<td>0.74</td>
</tr>
<tr>
<td>Luck</td>
<td>3.41</td>
<td>1.06</td>
</tr>
<tr>
<td>Beliefs in a just world</td>
<td>2.45</td>
<td>0.66</td>
</tr>
<tr>
<td>Beliefs in a benevolent world</td>
<td>2.30</td>
<td>1.02</td>
</tr>
<tr>
<td>Social support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus community involvement</td>
<td>4.02</td>
<td>0.80</td>
</tr>
<tr>
<td>Instrumental help</td>
<td>3.31</td>
<td>0.69</td>
</tr>
<tr>
<td>Coping assistance</td>
<td>3.89</td>
<td>0.70</td>
</tr>
<tr>
<td>Attributions of blame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral blame</td>
<td>1.64</td>
<td>0.74</td>
</tr>
<tr>
<td>Characterological blame</td>
<td>2.07</td>
<td>0.66</td>
</tr>
<tr>
<td>Similarity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences from victim</td>
<td>3.27</td>
<td>1.21</td>
</tr>
<tr>
<td>Things in common with victim</td>
<td>2.72</td>
<td>1.07</td>
</tr>
<tr>
<td>Perceived vulnerability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal vulnerability</td>
<td>3.10</td>
<td>0.83</td>
</tr>
<tr>
<td>Vulnerability of others</td>
<td>4.13</td>
<td>0.64</td>
</tr>
<tr>
<td>Empathy/distress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>3.83</td>
<td>0.92</td>
</tr>
<tr>
<td>Distress</td>
<td>3.30</td>
<td>1.04</td>
</tr>
</tbody>
</table>

Whether they would have things in common with the victim. One additional item asked subjects about whether they could see themselves in the victim’s situation. The alpha coefficient for this index was .76.

**Vulnerability.** Six items measured subjects’ perceptions of their own vulnerability, and six items measured the perceived vulnerability of an “average” woman to sexual assault. Half of each set of items were about vulnerability to stranger rape, and half assessed vulnerability to acquaintance rape. Responses to all of the items were given on a 5-point scale ranging from 1 (not at all) to 5 (very likely). The six items measuring personal vulnerability asked subjects how vulnerable they felt they were to both acquaintance rape and stranger rape. The six items assessing the perceived vulnerability of others asked them how vulnerable they felt either “someone they knew” or “any woman in the U.S.” would be to acquaintance rape and stranger rape. The alpha coefficient for the perceived vulnerability scale was .83.

**Empathy/distress.** Subjects were given a scale of eight emotions and were asked to imagine meeting the victim after the assault and to indicate the degree to which they would experience each emotion if they met her. These items were based on Batson’s studies of altruistic versus egoistic helping (Batson, 1990; Batson et al., 1983; Toi & Batson, 1982). Each emotion was rated on a 5-point scale. Four adjectives were used to measure their empathy for the victim: empathy, sympathy, compassion, and pity. Four adjectives were used to measure feelings of distress, including alarm, grief, upset, and disturbance. Batson and his colleagues (Batson et al., 1983) propose that empathy motivates individuals to help reduce the suffering of needy others and is qualitatively distinct from distress. Distress is hypothesized to evoke an egoistic motivation to help, or helping in order to reduce one’s own distress, while empathy is thought to evoke an altruistic motivation to help, or helping in order to reduce the victim’s distress. Although these constructs may be conceptually distinguished, they were too highly correlated in this sample to be considered independent. The reliability of the empathy scale was .86.

**World assumptions.** Subjects were asked to complete a 32-item instrument measuring their beliefs about themselves, the world, and others that has been used to measure world assumptions following victimizing events (Janoff-Bulman, 1989). The original instrument consists of eight subsets of items to represent eight specific world assumptions which may be challenged if one is victimized. Since observers’ reactions to victims were of particular interest, only five of the eight original subscales were included in this study. The items presented subjects with statements assessing their assumptions about the world, and their responses were given on a 5-point scale ranging from 1 (not at all) to 5 (definitely). The five assumptions measured were beliefs in the benevolence of the world, in the “just” distribution of outcomes, in the control people have over their own outcomes, in self-control, and in personal luck. Scores for each of the five subsets were summed. The intercorrelations between subsets were examined. The Pearson correlation coefficients ranged from .19 to .44 (all p < .05), indicating significant associations among these five beliefs in this sample. Although these subsets were expected to be independent based on previous findings (Janoff-Bulman, 1989), a coherent set of interrelationships was found between them in this study.

5The scale combining all eight items will be referred to as the empathy scale since all eight adjectives were highly intercorrelated.
Dependent Variables

Attributions of blame. The subjects completed a series of questions measuring the degree to which they felt the victim was to blame for the assault. These items were based on both Janoff-Bulman's (1979) characterological versus behavioral self-blame distinctions, and Thornton's work (Thornton et al., 1986) on the attribution of characterological and behavioral blame to others. Five characterological blame items and five behavioral blame items were presented. The items were presented on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The behavioral blame items asked subjects to indicate their agreement with statements that the victim (on the tape) behaved in a very irresponsible manner, the incident could have been prevented had the victim been more assertive or physical in dealing with her attacker, the incident could have been prevented had the victim done more to resist her attacker, the victim may have provoked the attacker in some way, and the victim does not know how to take care of herself. The characterological blame items measured agreement with statements that the victim appears to be the type that lets herself get into predicaments she cannot handle; is too open and trusting of other people, especially where acquaintances are concerned; does not seem to be assertive enough; would seem to be a very irresponsible sort of person; and seems to be a bad judge of other people and situations, which likely contributed to the incident's occurrence. In the structural model, both sets of items loaded on the same factor. Prior research suggests that characterological and behavioral blame items would form independent composites; however, in the present study, models that were run assuming orthogonality were unacceptable. The bivariate correlation between composites was .57. The reliability of the characterological blame index was .83 and the behavioral blame index was .74.

Coping assistance. A seven-item scale of social support instructed subjects to imagine meeting the victim after the assault and asked whether they would try to be supportive and talk to her, be willing to lend her money and drive her to see a therapist, accompany the victim to support group meetings, and offer the victim advice and information. Responses to the items were made on a 5-point scale ranging from 1 (definitely not) to 5 (definitely yes). These items were based on the types of social support provision measured in the UCLA Social Support Inventory (Dunkel-Schetter et al., 1986). The alpha coefficient computed for this index was .79.

Instrumental help. Second, three closed-ended questions assessed instrumental help by instructing subjects to imagine meeting the victim, and asking them how much time and money they would be willing to provide to the victim to help her cope with the assault. The subjects' responses were given on a series of 5-point scales. The alpha coefficient computed for this index was .83.

Figure 1. Conceptualization of the process of an experiment.

Campus community involvement. Nine items were designed to measure the kinds of tangible and indirect support nonvictims would be willing to provide to rape victims in general. These items asked whether the subjects would be willing to donate money or provide time to advance rape education and treatment services on campus and in the community. These items were modeled after those contained in scales used by Schwarzer and Weiner (1991) to assess social-support intentions. The reliability of this index was .85.

Data Analysis

Blalock (1971) and Costner (1971) proposed that experimental manipulations may be viewed as two components: (a) the observed manipulations (i.e., the instructions given to participants), and (b) the unobserved psychological state of the participants resulting from the manipulation. This conceptualization is presented in Figure 1. Observed variables are indicated with rectangles and unobserved variables are indicated with circles. A line connecting rectangles and/or circles represents a direct effect. Lack of a connection implies lack of a direct relationship between variables.

Alwin and Tessler (1985) present some implications of the conceptualization of the experiment as two components. The extent to which the manipulation has been successfully induced is reflected in the path coefficient labeled a
Clearly, coefficients approaching unity are desired; however, at a minimum, the coefficient should be significant to conclude that the manipulation indeed had an effect. If the experimental manipulation was perfectly induced, the relationship between the manipulated and the unobserved facets of the independent variable would be perfect and the path coefficient \( a \) would equal 1. The treatment effect would then be represented by the path connecting the unobserved independent variable and the unobserved dependent variable, the path coefficient labeled \( d \). Clearly, the relationship between the independent variable and the dependent variable is a function of not only the parameter labeled \( d \) but rather \( ad \); that is, the construct of interest and the degree to which the manipulation was successfully induced. In our approach, we test the significance of paths like \( ad \). In traditional analyses, the manipulation check analyses are performed separately from hypothesis testing. In this way, the degree of successful induction of manipulation is assumed to be unity, and the treatment effect is estimated with a coefficient analogous to \( d \). This may lead to an overestimation of the treatment effect in many experimental settings. Additionally, the observed manipulation should not directly affect other variables in the model. Large direct effects of the manipulation on other variables in the system would be indicative of a complex manipulation where more than just the construct of interest was manipulated. This is often not examined in experimental research as traditionally analyzed. If the presence of complex manipulations is not examined, it is possible that the manipulations affect the constructs of interest and other constructs included in the analysis. Indeed, the inadvertently manipulated constructs may be responsible for the observed differences in the dependent variables.

Reliability and validity information regarding the manipulation check is also included in the model (Figure 1). Path coefficients \( b \) and \( c \) provide reliability information regarding the induction of the experimental manipulation. Similarly, paths \( e \) and \( f \) provide reliability information regarding the dependent variables. These paths define the measurement model. This information is included and the effects of interest are adjusted for the degree of reliability within the analysis.

Traditional ANOVA methods do not easily lend themselves to testing complex processes of mediation among constructs. In this study, we used SEM, which permits testing hypothesized processes between systems of latent constructs. In addition, the use of latent variables allows examination of relationships between constructs that are theoretically free of measurement error (Bentler, 1992; Bollen, 1989).\footnote{Correlations can be disattenuated for measurement error; however, the results are not equivalent (Ghiselli, Campbell, & Zedeck, 1981).}

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**Figure 2.** Hypothesized measurement model. Note that only significant coefficients presented in standardized form are included \((p < .01)\). Disturbance paths are not indicated.
vulnerability is indicated by both personal vulnerability and vulnerability of others to sexual assault. Empathy is indicated by empathy and distress. World assumptions are indicated by five measured variables: (a) general control, (b) personal control, (c) luck, (d) beliefs in a just world, and (e) benevolence of the world. Social support is indicated by three measured variables that assess willingness to help a specific victim by offering coping assistance and instrumental help, and to help rape victims in general by volunteering for campus and community victim assistance programs. Attributions of blame are indicated by both behavioral and characterological blame.

The Proposed Structural Model

As can be seen in Figure 3, it is hypothesized that attributions of blame, both characterological and behavioral, would be predicted by the four constructs perceived vulnerability, world assumptions, similarity (to the victim), and empathy (for the victim). Degree of perceived vulnerability, similarity, and empathy are experimentally manipulated. The interaction between the measured variables of similarity and perceived vulnerability is hypothesized to predict differences in Similarity and Perceived Vulnerability. The interaction between the measured variables of perceived vulnerability and empathy will predict differences in both Perceived Vulnerability and Empathy.

Greater attributions of blame are predicted by higher perceived vulnerability and stronger world assumptions. Fewer attributions of blame are predicted by greater similarity and empathy. Additionally, stronger world assumptions are predicted to be associated with less blame through perceived vulnerability. Perceived vulnerability is also expected to directly predict amount of reported empathy such that greater perceived vulnerability will lead to greater empathy.

The degree to which attributions of blame are made toward the victim is expected to be inversely associated with the amount of social support offered. Additionally, similarity and degree of empathy are hypothesized to directly predict greater social support. Greater perceived vulnerability will predict less social support offered.

Results

The assumptions of the analyses were evaluated through BMDP (1992) and EQS (Bentler, 1992) statistical packages. The major analyses were performed with
EQS. Univariate and multivariate outliers were examined among the measured variables. Five subjects had substantial missing data. Therefore, the analyses were performed on data from a total of 123 women. After examination of univariate normality, there was evidence that the univariate and multivariate distributions were normally distributed; therefore, structural equation models were estimated using maximum likelihood techniques (Bentler, 1992; J. B. Ullman, 1990).

The hypothesized model was tested using EQS. Substantial support was found for the hypothesized model in terms of the chi-square test statistic and fit index, \( \chi^2(171, N = 123) = 214.69, p = .01 \); comparative fit index (CFI) = .92. Following the recommendation for the model: (a) the direct effect of empathy on attributions of blame, and (b) the direct effect of perceived vulnerability on social support, \( \chi^2(175, N = 123) = 219.53, p = .01 \); CFI = .92. This simpler model did not differ significantly from the model with four additional paths included.

To aid in interpretation, the final model is presented in two parts. Figure 2 presents the hypothesized measurement model; that is, factor loadings of the measured variables on the latent constructs. The experimental manipulation of perceived vulnerability and empathy is also included in this figure. Figure 4 presents the final structural model; that is, the relationship between the latent constructs. Rectangles represent measured variables and circles represent unobserved constructs. A line connecting two variables indicates a direct relationship. Lack of a line indicates no direct effect. For ease of interpretation, the experimentally manipulated observed variables are also included on this diagram. The final model illustrated in Figures 2 and 4 contains significant coefficients presented in standardized form. Note that for measurement models did not differ; therefore, only one diagram is included. The structural model was estimated using maximum likelihood techniques (Bentler, 1992; J. B. Ullman, 1990).

Figure 4: Final structural model with experimental manipulations. Note that only significant coefficients presented in standardized form are included. Dashed lines indicate paths included to control for higher order interactions. Residual paths are not presented in this figure.

**Manipulation Checks**

Figure 2 presents the hypothesized measurement model and information regarding the adequacy of the manipulations. The hypothesized and final measurement models were tested using EQS. Substantial support was found for the hypothesized model in terms of the chi-square test statistic and fit index, \( \chi^2(174, N = 123) = 219.00, p = .02 \); CFI = .92. For subjects assigned to the high-empathy condition, perceived vulnerability was greater than for those in the high-vulnerability condition than in the low-vulnerability condition; no differences in empathy were observed.

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*Note:* A univariate outlier was defined as a variable with more than 3.5 standard deviations from the mean. Two unilateral outliers were detected and deleted from the analysis. One participant had an extremely high score on degree of behavioral blame (64,246, p < .001) and second had a very high score on attribution of multivariate and multivariate distance, no multivariate outliers were detected.
in Perceived Vulnerability were observed in the low empathy condition. In other words, the manipulation of vulnerability was effective only for those participants in the high empathy condition. Although the manipulations of empathy and vulnerability did significantly affect participants' level of Perceived Vulnerability, the manipulation did not significantly affect any of the other latent constructs in the model. The interaction of perceived vulnerability and similarity did not produce changes in either Perceived Vulnerability or Similarity.

The presence of complex manipulations was examined through the use of the Lagrange multiplier test (LM; Chou & Bentler, 1990). The models were not significantly improved by adding direct paths from any of the three manipulated independent variables to other constructs in the model. This would seem to indicate that within the system of variables examined in this analysis, there were no complex manipulations (Alwin & Tessler, 1985).

Because this approach to evaluating the effectiveness of manipulations is different from traditional approaches, three \(2 \times 2 \times 2\) MANOVAs, one for each manipulation, were performed on the indicators of Similarity, Perceived Vulnerability, and Empathy. In each of the MANOVAs, the manipulations of similarity, vulnerability, and empathy were employed as the independent variables. The manipulation check for similarity used two measured variables as dependent measures: differences from Mary, and things in common with Mary. The similarity manipulation significantly affected both variables, \(F(2, 114) = 25.68, p < .01\). None of the other manipulations or interactions of manipulations significantly changed similarity measures. Personal vulnerability and others' vulnerability were employed as dependent measures in the manipulation check for personal vulnerability. Only the interaction of vulnerability and empathy significantly affected the two measures of vulnerability, \(F(3, 114) = 3.50, p < .05\). Neither empathy nor similarity nor perceived vulnerability affected the measures of empathy and distress. The results of these MANOVAs match the results of the SEM models.

**Final Structural Model**

**Effects of Experimental Manipulations on Dependent Variables**

The experimental effects, mediated via the latent variables, are as follows (Figure 4). The similarity manipulation led to greater perceived vulnerability (standardized indirect effect coefficient = .19, \(z = 2.07, p < .05\)), less attributions of blame (standardized indirect effect coefficient = -2.49, \(z = -3.49, p < .05\)), greater empathy (standardized indirect effect coefficient = .15, \(z = 1.81, p < .05\)), and more social support (standardized indirect effect coefficient = .11, \(z = 1.61, p < .10\)).

There are several paths linking similarity and social support. Greater similarity led to less blame which, in turn, led to more social support. Greater similarity also led to greater feelings of vulnerability which led to greater social support. Finally, greater similarity to the victim led to more social support through increased feelings of empathy.

**Indirect Effects—Mediators**

Similarity did not directly increase social support as hypothesized. Rather, the relationship between perceived similarity and social support was mediated by attributions of blame, perceived vulnerability, and empathy (standardized indirect effect coefficient = .33, \(z = 3.49, p < .01\)). Greater similarity led to fewer attributions of blame which, in turn, led to more social support. Increased similarity led to greater perceived vulnerability, more empathy, and more social support. Similarity led to more empathy that led to more social support.

The relationship between world assumptions and social support was mediated by attributions of blame. Stronger world assumptions about the world, such as beliefs in personal control, general control, and in a just, benevolent world, led to greater attributions of blame which, in turn, led to less social support (standardized indirect effect coefficient = -.09, \(z = -1.89, p < .05\)). Contrary to predictions, the relationship between assumptions about the world and blame was not mediated by perceived vulnerability. Similarity directly increased levels of empathy (.33). However, this relationship is also mediated by perceived vulnerability. Higher similarity led to greater perceived vulnerability, leading to more empathy (standardized indirect effect coefficient = .14, \(z = 1.94, p < .05\)).

**The Direct Effect Relationships Among the Constructs**

The direct interrelationships among the constructs were also examined. The significant coefficients presented in standardized form for these direct effects in the final model are presented in Figure 4. Stronger world assumptions led to more attributions of blame (standardized coefficient = .27). High levels of similarity led to fewer attributions of blame (standardized coefficient = -.43). World assumptions did not significantly change perceived vulnerability, and this path was dropped from the final model. Attributions of blame were not significantly predicted by either perceived vulnerability or empathy, and these two paths were also dropped from the final model.

Greater similarity (standardized coefficient = .26) and higher perceived vulnerability (standardized coefficient = .41) led to greater empathy. More social
support was offered when participants had fewer attributions of blame (standardized coefficient = .31), greater perceived vulnerability (standardized coefficient = .33), and greater empathy (standardized coefficient = .21).

Discussion

This study sought to determine some of the motivational factors underlying social reactions to rape victims. Unlike previous studies, we attempted to manipulate perceived vulnerability, similarity, and empathy in one design in order to test the effects of these variables on reactions to victims. While similarity was successfully manipulated, empathy was not. The vulnerability manipulation was partially effective in that the perceived vulnerability manipulation successfully heightened feelings of vulnerability only when subjects were asked to take the perspective of the rape victim. This interaction suggests that being asked to imagine oneself in the victim’s position may be necessary to experience feelings of vulnerability to rape.

The study’s findings revealed both direct and indirect effects of perceived vulnerability, similarity, and empathy on blame and social support. While direct effects have been tested before, this study was the first to model and find indirect effects between these variables. It was also the first to use latent constructs in testing hypotheses with these concepts.

Consistent with most investigations of defensive attribution theory, similarity directly predicted fewer attributions of blame to a rape victim. Similarity also predicted greater social support for a rape victim via three indirect, or mediational, pathways. Similarity was associated with greater feelings of vulnerability and empathy, both of which were predictive of greater social support for the victim. In addition, similarity was associated with less blame, which was predictive of greater social support for the victim. World assumptions were also associated with blame and social support through both direct and indirect pathways. Individuals who reported having stronger beliefs about the world with respect to feeling the world was just and benevolent, feeling they had control over what happened to them, and feeling that they were personally fortunate were more likely to blame a victim of rape. Assumptions about the world were also indirectly associated with less social support for rape victims through greater blame. However, there was no evidence of a mediational relationship between world assumptions and blame through perceived vulnerability.

Consistent with previous work on empathy and prosocial reactions to victims, empathy was directly related to greater social support for rape victims. However, empathy was unrelated to blame in this study. Finally, it was predicted that individuals high in perceived vulnerability would blame victims more. However, perceived vulnerability did not directly or indirectly predict blame. In contrast, perceived vulnerability was both directly and indirectly linked to greater social support for rape victims.

Similarity

This study’s findings support the claim of victimization theorists that similarity plays an important role in reactions to victims. A main effect of similarity has been found consistently in defensive attribution studies (Burger, 1981), which show that individuals are less likely to blame similar victims. Defensive attribution theorists reason that individuals are less motivated to blame similar victims because attributing responsibility to a similar victim is comparable to holding oneself responsible for an uncontrollable misfortune (Shaw & McMartin, 1977). Although it would be optimal to test the interaction effect of similarity and perceived vulnerability on reactions to rape victims, the results of this study and Coates et al. (1979) suggest that it may be difficult to manipulate feelings of vulnerability to rape in a sample of college women. This study extended earlier work in finding that similarity was also associated with greater social support for victims through less victim blame. This finding provides partial support for the attribution–affect–action model (Weiner, 1985) in showing that causal attributions for rape affect the provision of social support to rape victims; the affective mediation of this relationship was not tested here. Interestingly, similarity alone did not predict less support for rape victims in spite of how personally dissimilar and geographically distant one victim was (the factory worker in New York City), which would make support provision difficult. Although characteristics of the victim exert a strong influence on observers’ reactions, this finding supports the notion that social support is an interpersonal process (House, 1981) which can be shaped by both the victim’s characteristics and the psychological processes of the observer. Future studies would benefit from measuring social support in a behavioral manner to verify that observers’ attributions are associated with enacted support for rape victims.

A reviewer noted that the geographical distance of the dissimilar victim may account for the findings on similarity and social support. Subjects were instructed to imagine meeting the victim before responding to the social support questions; however, it may have been more difficult for them to imagine meeting a victim who lived in New York City than one who lived nearby. Since the social support construct was indicated by both intentions to help the rape victim in the scenario and support for victims in general through campus and community involvement, the potential bias introduced by the geographical distance of the victim was somewhat limited. Geographical distance from a hypothetical rape victim should not bias intentions to provide social support to victims in general. Future studies of social support could eliminate this bias by not providing information on the geographical location of the rape victim.
Two additional mediational pathways linking similarity and social support were found that reveal more complex psychological processes involved in the provision of social support for victims than have been found in the past. First, to the extent that personal similarity heightened perceived vulnerability to rape, it was associated with greater willingness to provide social support to rape victims. Similarity to the victim appears to increase the perceived likelihood that rape could occur which, in this sample, leads individuals to express stronger intentions to provide support to rape victims rather than to defensively attribute blame to victims. Second, it was found that empathy mediates the relationship between similarity and social support. To the extent that personal similarity enables women to place themselves in the victim’s position or to imagine how it would feel to be victimized, it also increases social support for victims. These mediational relationships suggest that similarity leads to social support when it leads individuals to consider the threat and impact of being victimized. This finding contrasts with the propositions of defensive attribution theorists. It is possible that for some women, providing social support to victims is a preferred way of coping with the threat of victimization than blaming victims. It is also possible that the vulnerability manipulation led women to recognize that all women are vulnerable to rape, which heightened their sense of responsibility toward helping those who have been victimized. Perhaps future studies can explain the conditions under which defensive attribution effects occur and when social support effects occur.

**World Assumptions**

Another area of work which was incorporated into this study was the impact of assumptions about the world on reactions to innocent victims. Based on the literature in this area, it was hypothesized that individuals with certain types of beliefs about the world would have more negative reactions to victims than would those who did not strongly endorse these beliefs. It was found among the women in this sample that beliefs in a just and benevolent world, in personal and general control, and in personal luck were associated with more victim blame and, consequently, less social support for rape victims. The blame findings are consistent with earlier just-world findings, although they reveal that a larger set of beliefs may be threatened by encounters with victims, making interventions aimed at reducing victim blame more difficult. The indirect relationship between world assumptions and social support for rape victims has not been tested before. This finding reveals that regardless of the victim’s characteristics, observers may possess certain assumptions prior to meeting the victim which will affect their causal attributions for the rape and their willingness to support a victim. Given that world assumptions are known to be enduring and highly resistant to change, they are expected to be very consistent predictors of blame and social support across interactions with rape victims. Another hypothesis tested here was that world assumptions “protect” individuals from thoughts of their own victimization, although world assumptions were not related to perceived vulnerability in this study. Much of the research in this area has been based on the assumption framework of victims who may be more motivated than nonvictims to reduce their feelings of vulnerability to further victimization. It is possible that for nonvictims, these assumptions serve different functions, such as helping them maintain schemata about the world as just and controllable without necessarily reducing their feelings of vulnerability to rape. An alternative approach may be to test whether assumptions are related to less perceived vulnerability through victim blame (Janoff-Bulman, 1982), although this study was not designed with this hypothesis in mind.

**Empathy**

Based on the victimization literature, it was hypothesized that empathy would interact with perceived vulnerability in effects on blame. In this study, empathy was directly related to greater social support, although it was not associated with less blame as predicted. Previous studies on social support and helping have found that empathy motivates individuals to help others with no expectation of reciprocity in the future (Batson, 1990; Batson et al., 1983). This study’s findings suggest that this phenomenon may also be observed with rape victims. In prior studies, support for the relationship between empathy and blame has been mixed with confirmatory evidence coming primarily from studies which employ a measure of dispositional empathy for rape victims in general (RES; Deitz et al., 1982). This scale is designed to tap the ability of jurors to take the psychological perspective of the rape victim or the assailant during a rape trial, although it also contains items which assess causal attributions for rape. Thus, particular items on the scale may artificially inflate the relationship between rape empathy and attributions of blame found in these studies. Studies using a general measure of empathy for victims (RI; Davis, 1980) have not found a consistent relationship between empathy and blame, and empathy has not been successfully manipulated experimentally to adequately test this relationship (Coller & Resick, 1987). Given that victims often face inconsistent and negative reactions from others (Bennett Herbert & Dunkel-Schetter, 1992), it is possible that there are certain factors, like empathy, which are associated with greater social support yet are not necessarily linked to less victim blame. However, different operationalizations of rape victim empathy clearly need to be examined when testing these predictions.
Vulnerability

According to the victimization literature, when observers encounter innocent victims, their illusions of invulnerability are threatened and they are motivated to defensively attribute blame to the victim (Perloff, 1983). Although this hypothesized process has been discussed since the early attribution research (Walster, 1966), it has been more of a theoretical than empirically tested set of relationships (Coates et al., 1979; Fulero & Delara, 1976; Shaver, 1970). Contrary to this hypothesis, these findings revealed that perceived vulnerability was not directly or indirectly linked to victim blame.

In general, the women in this sample had high levels of perceived vulnerability to rape, high levels of empathy for the victim, and low levels of victim blame. Given their high levels of perceived vulnerability, these women would be expected to experience greater distress in hearing about a victim's experience and subsequently blame the victim more. However, it is possible that this sample reports high levels of vulnerability due to prior personal experience with victims and victimization. Exploratory analyses revealed that women who knew at least one victim felt more vulnerable to rape than those who did not know victims. Prior experience with victims would undoubtedly increase feelings of vulnerability to rape, yet may reduce the negative arousal one feels when exposed to innocent victims. Experience with victims is likely to dispel feelings of discomfort believed to be associated with exposure to victims, as well as feelings of helplessness in knowing how best to support a victim (Dunkel-Schetter & Skokan, 1990).

Another explanation may account for the absence of findings on perceived vulnerability and blame in this study. Previous research suggests that some individuals can better tolerate the prospect of victimization and, therefore, are better able to respond to victims in a positive manner (Shaver, 1970). The women in this sample felt vulnerable to rape, yet many of them may have been actively coping with this threat by putting themselves in the victim's shoes, gathering information about the event, and talking openly with past victims. Active coping, in turn, can reduce the distress associated with victimization. On the other hand, individuals who choose to avoid the thought of victimization and exposure to victims may be more likely to experience threat when presented with a victim, which could motivate them to blame the person. Thus, coping may be a moderator of the effects of perceived vulnerability on blame. For women who feel vulnerable to rape, those who actively cope with the event are expected to experience less distress and, consequently, blame victims less than those who do not actively cope with the event. Thus, measures of coping with the threat of assault may be useful to incorporate in future studies.

In addition to the prediction that perceived vulnerability would predict greater blame, it was hypothesized that vulnerability would be associated with less social support for victims. Contrary to this hypothesis, it was found that vulnerability was both directly and indirectly related to greater social support. Thus, under these conditions and for these women, vulnerability had prosocial, not stigmatizing effects. This group of women may feel more confident and motivated to provide social support to a rape victim due to their prior experience as support providers and support recipients (Dunkel-Schetter & Skokan, 1990). In fact, exploratory post-hoc analyses showed that subjects who knew victims and subjects who had provided support to victims were more willing to help the rape victim depicted in the study and rape victims in general.

Comments on the Design and Analysis

This study demonstrates the use of SEM for use with a combined experimental and nonexperimental research design. In addition to the ability to test mediational hypotheses at the level of the construct, another important advantage of the analytical strategy is the explicit inclusion of the adequacy of the manipulations in the assessment of the effects. The inclusion of the strength of the manipulation in the computation of the effect does, however, pose an interesting question for further research; that is, How big is big enough? Clearly, to infer that a manipulation had an effect, the coefficient should be significant. However, after significance is determined, how large a coefficient is necessary to have confidence in the manipulation?; that is, What does a significant coefficient less than 1 mean? Past research has implicitly assumed that the coefficient for the manipulation was 1. It seems that often this assumption may lead to an overestimation of the effects. Although the .56 coefficient for the similarity coefficient certainly is not 1, assessment of the manipulations and effects as illustrated in this study may present a more conservative, but more realistic, assessment of the relationships between constructs.

Presence of complex manipulations is also specifically tested in this study through the use of the Lagrange multiplier (LM) test. None of the manipulations were complex, in terms of the constructs included in the model. Therefore, although we did not perfectly manipulate Perceived Similarity, we did not inadvertently manipulate other constructs in our Perceived Similarity manipulation. Although the manipulations of vulnerability and empathy did not affect their respective latent constructs, through the use of the LM test it was possible to determine that these manipulations also did not affect other constructs in the model. Therefore, perhaps in a Popperian sense we have succeeded in eliminating several rival hypotheses; namely, other constructs that might have been inadvertently manipulated.
A major limitation of this study design is that it examines only the reactions of college women to rape victims. This population may differ from others due to extensive rape education on campus and their frequent past experience with victims. In this sample, for example, knowledge about rape and prior experience with victims could have led to greater empathy and social support for victims than would be observed with other samples. Dunkel-Schetter and Skokan (1990) state that “experience as a support provider can improve behavioral skills, increase confidence and reduce anxiety about attempting to help someone in distress” (p. 447). Thus, caution must be taken in generalizing the findings from this study to different populations, such as young women in the workforce or men who may have less knowledge about rape and rape victims. Studies of such populations would be very worthwhile.

Conclusion

In this study, the use of SEM techniques allowed the examination of complex pathways to victim blame and social support, many of which had not been tested earlier. This was the first study to find that factors associated with victim blame were indirectly linked with social support for a rape victim which suggests that blame and social support are interrelated processes which need to be examined together in future studies on reactions to victims, and any interventions aimed at reducing negative reactions to rape victims may also serve to increase social support for victims. The study’s findings also reveal that there are mediational processes linked to social support for victims, independent of blame, that have not been examined in the past. These pathways suggest that complex psychological processes are involved in support provision for victims; whereas, those leading to blame appear to be simpler processes.

In sum, this study expands upon previous work by investigating the motivational processes linked to blame and social support of rape victims, as well as the conditions under which both reactions are observed. Our findings suggest that a common theoretical framework may be developed by integrating the victimization and social support perspectives which would contribute to empirical designs, and ideally to intervention studies to improve rape education and crisis work with rape victims.

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