

ATTRIBUTIONAL STYLE MODERATES THE IMPACT OF CAUSAL CONTROLLABILITY INFORMATION ON HELPING BEHAVIOR

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The helping behavior of individuals with supportive (i.e., the tendency to view others' misfortunes as uncontrollable by the targets) and unsupportive (i.e., the tendency to view others' misfortunes as controllable by the targets) attributional styles was investigated in a natural setting, under conditions of high and low controllability of a target's need. Helping behavior was a function of the perceived controllability of the target's need for help and the helper's attributional style. While non-negligent targets were helped more than the negligent - supporting an attributional model of helping behavior (B. Weiner, 1980a, 1995) - the attributional style of potential helpers moderated that effect. Individuals with a supportive style helped a needy peer at the same rate irrespective of the controllability of the need. In contrast, unsupportive style individuals were very kind to the needy peer if the reason was legitimate, and highly neglectful if the peer was negligent. Thus, the causal structure of the situation was more influential in determining the behavior of unsupportive than supportive style respondents. The finding that attributional styles moderated helping reactions demonstrates that the attributional model of helping behavior is incomplete and that person variables must be considered in tandem with situational variables in attributional models of social behavior.

When and why do people help others in need? A victim of circumstance typically is helped more than a person who is responsible for needing help (Berkowitz,

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1969, 1972, 1973; Meyer & Mulherin, 1980; Weiner, Perry, & Magnussen, 1988). An attribution approach to social behavior emphasizes the role of subjective construals of situations in explaining behavior, and provides a theoretical framework for the prediction and interpretation of evidence of helping determinants. Much of the attribution research has examined “causal attributions” (i.e., inferences about the causes of events and outcomes) - and specifically dimensions of causes - as determinants of social behavior (e.g., Berkowitz, 1969; Weiner, 1980a, 1980b). The attributional model of helping behavior postulates an “attribution - affect - action motivational sequence, in which thoughts determine what we feel and feelings determine what we do” (Weiner, 1980a, p. 676). According to this model, high control over the reason for need elicits greater anger and less helping behavior from others, whereas low control over the reason for need elicits greater sympathy (pity) and more helping behavior (Weiner, 1985; see Schmidt & Weiner, 1988 for a review). A good deal of evidence supports the postulated sequence of attribution - affect - behavior in reactions to stigmas (e.g., Weiner et al., 1988) and investigations of helping judgments and behavior (e.g., Schmidt & Weiner, 1988; Weiner, 1980a, 1980b). However, the attributional model is incomplete because, as we will show, non-negligent targets are not always helped at a rate higher than negligent targets, and the explanation seems to lie in the interaction of attributional styles and controllability information in the helping situation.

Attributional style - an individual’s cognitive “habit” of explaining events and outcomes - is a relatively parsimonious mechanism at the level of the person which has been shown to account for reactions in a number of domains, such as helplessness and depression (e.g., Abramson, Metalsky, & Alloy, 1989; Peterson, 1991; Peterson & Seligman, 1984), shyness and loneliness (e.g., Anderson & Arnoult, 1985), and achievement (e.g., Bandura, 1977a, 1977b; Dweck, 1975). The causal perceptions of events/outcomes which are central in attributional models of social behavior arise from situational cues (Weiner, 1995; cf. Anderson & Arnoult, 1985) and/or person (i.e., attributor) factors (e.g., Anderson & Weiner, 1992; see Ross & Nisbett, 1991 for a review). In terms of helping behavior, something about the situation may suggest a cause which limits helping (e.g., a person who falls down in a street has alcohol on their breath), and/or something about the attributor may elicit a cause which limits helping - for example, the attributor habitually views targets’ negative outcomes as due to causes controllable by the targets (Higgins, 1992). Research on situational factors documents that “causal structure” information in the situation exerts powerful constraints on explanations for events (Anderson, 1983a; Feather & Simon, 1971; McArthur & Solomon, 1978; Taylor & Fiske, 1975; Wong & Weiner, 1981). Research on person factors has examined primarily individual differences in construal of situations (i.e., attributional styles) (Ross & Nisbett, 1991; cf. Anderson & Weiner, 1992). The majority of research involving attributional styles has been in the area

of self-perception (e.g., Alloy, Peterson, Abramson, & Seligman, 1984; Anderson, 1983b; Peterson, 1991; Peterson, Semmel, von Bayer, Abramson, Metalsky, & Seligman, 1982), and it has been known for some time that attributional styles play a moderating role in individuals' reactions to their *own* "problems in living" (e.g., Anderson & Arnoult, 1985; Peterson & Seligman, 1984). However, we do not know if person-perception attributional styles influence social behaviors such as helping.

The current research explored individual differences in how people formulate explanations for the outcomes of others who may play a role in moderating helping reactions (Higgins, 1992). Specifically, we examined whether individuals with a "supportive" attributional style (i.e., the tendency to view others' misfortunes as due to causes which are uncontrollable by the targets) were more likely to help someone in need than those with an "unsupportive" attributional style (i.e., the tendency to view others' misfortunes as due to causes which are controllable by the targets), since viewing others' negative outcomes as uncontrollable should lead to greater helping in the attributional model (Higgins & Morrison, 1998; Weiner, 1995).

Our aim was to investigate the role of attributional style in helping behavior, under conditions of high and low controllability of a target's need for help. Based on the attributional model, we expected that greater help would be offered to the more "legitimate" target (i.e., the person with the least control over the reason for need), and that individuals with a supportive attributional style would be more helpful toward a needy individual than would those with an unsupportive style. As the present study was the first to examine the role of attributional style in helping behavior, we were unsure whether or not there would be an interaction between attributional style and controllability information¹. We anticipated two possible interactions. First, supportive style individuals might show similar, and relatively high, helping rates in the two controllability information conditions, whereas unsupportive style individuals might help uncontrollable-need targets more than they might help controllable-need targets. Second, the reverse pattern might emerge: unsupportive style individuals might show similar, and relatively low, helping rates in the two controllability information conditions, whereas supportive style individuals might help uncontrollable-need targets more than they might help controllable-need targets. Although we did not know whether there would be an interaction between attributional style and controllability information, past findings suggested that where person variables like attributional style do play a role, they typically have a smaller impact on social behavior than do situational factors (Mischel, 1973; cf. Ross & Nisbett, 1991). Thus, we anticipated that if attributional

¹Therefore, we were reluctant to include speculative theoretical variables in the design of the study which might explain the possible interactions between attributional style and controllability information.

style plays a role in helping behavior, it is likely to moderate the impact of situational determinants. In particular, any moderating effect of attributional style on helping must be “riding beneath” the large, known impact of controllability information. Only by measuring different tendencies in construal of others’ outcomes in conjunction with well-established situational determinants would we know if such tendencies are benign or not in determining helping behavior.

The experiment described below used a natural helping situation for students (i.e., needing lecture notes for missed classes) in a non-laboratory setting to minimize demand characteristics associated with knowledge of participation in a psychology study, and also to provide external validity to the findings.

METHOD

RESPONDENTS

160 undergraduate university students (93 females; 67 males; average age of 20.73 years) completed the Reasons for Misfortune Questionnaire (RMQ; Higgins, 1992). The RMQ was designed to measure supportive and unsupportive attributional styles. Comprised of six negative outcomes (e.g., bankruptcy) which happen to an hypothetical other, the RMQ instructs respondents to think of a cause for each outcome, and then rate the cause along several attributional dimensions including the locus of causality (i.e., the degree to which the cause is internal or external to the target) and personal control (i.e., the degree to which the cause is controllable by the target). Ratings were done on 9-point scales, with high scores representing greater internal locus of causality and personal control. Responses on the locus and personal control scales were summed to create an attributional style score for each participant (see Higgins & Morrison, 1998, for a discussion of RMQ scales and validity). Respondents were divided into “supportive” ($N = 50$; 32 females, 18 males) and “unsupportive” ($N = 51$; 27 females, 24 males) attributional style groups depending on whether they were in the bottom third or top third of the attributional style score distribution, respectively. These one hundred and one respondents are the “selected students” referred to in the studies described below.

PROCEDURE

Study 1. Helping questionnaire study. Four weeks after completing the RMQ, fifty (50%) of the selected students (28 supportive and 22 unsupportive attributional style) were contacted and asked to complete a questionnaire which assessed reactions to two helping situations. Respondents with each attributional style were randomly assigned an uncontrollable-need or controllable-need questionnaire which included two stories, in each of which a hypothetical individual needed help. One story depicted a stranger who tripped and fell on a moving bus because they were visually-impaired (uncontrollable-need condition) or obviously drunk (controllable-

need condition). The other story depicted an acquaintance who needed to borrow fifty dollars to make the month's rent payment because they missed work due to illness (uncontrollable-need) or laziness (controllable-need). Respondents read each story and then rated the degree to which they thought the target had control over the reason for need, how angry or sympathetic they felt toward the target, and how likely it was that they would help the target. All ratings were done on 9-point scales, with high scores representing greater perceived control, anger, sympathy, and helping judgments.

Study 2. Helping experiment. Over one weekend during the university semester, and eight weeks after completing the RMQ, seventy-five (74%) of the selected student respondents (40 supportive and 35 unsupportive attributional style) were able to be contacted by telephone by a research assistant blind to the experimental hypotheses and the respondent's attributional style. The caller was, ostensibly, an individual who worked at the university's "Study Skills Office". The caller informed respondents that a fellow student had missed several lectures because she had to be in the hospital for emergency surgery (uncontrollable-need condition), or because she decided to go on a skiing trip (controllable-need condition), and indicated the student had sought help from the Study Skills Office to locate other students in the class who might be willing to lend their notes. The caller then provided the respondent with the fictitious fellow student's first name ("Chris") and telephone number, and suggested a good time to call in order to arrange the lending of his/ her notes, if interested in helping out. The second author acted as the needy student, and received the incoming calls according to a detailed script², and at a different location from the research assistant caller. Each respondent who made the call was thanked by "Chris" for the call, and informed that arrangements for getting the lecture notes had already been made. The names of the individuals who made telephone calls offering their notes were recorded. Following the data collection, respondents were again contacted and debriefed about the nature and results of the study, and thanked for their contributions.

RESULTS

STUDY 1: PERCEIVED CONTROL, EMOTION, AND HELPING JUDGMENTS

There were no effects due to gender in the judgment data. Separate 2 (condition: uncontrollable-need, controllable-need) x 2 (attributional style: supportive, unsupportive) x 2 (story: bus, money) ANOVAs with repeated measures on the last factor were used to examine respondents' reactions to the hypothetical helping situations³. Small, medium, and large effect sizes for an F-statistic have partial

²Scripts for caller and recipient assistants are available from the first author.

³Although we included the "story" variable in the design for the analyses, for brevity and focus, we do not report the story effects in this paper. However, the "story" results may be obtained from the first author.

eta-squared values of .01, .059, and .138, respectively (Cohen, 1992; Kirk, 1996).

Perceived control. Respondents viewed the target as having less personal control in the uncontrollable-need condition (4.0) than in the controllable-need condition (6.9), $F(1, 46) = 54.01$, $p < .001$, partial eta-squared = .54. In addition, individuals with a supportive attributional style (5.05) viewed the target as having less personal control over the reason for need than did the unsupportive style individuals (5.87), $F(1, 46) = 4.27$, $p = .045$, partial eta-squared = .08.

Emotion judgments. Respondents indicated that they would be less angry and more sympathetic toward the target in the uncontrollable-need condition (Means = 2.07 and 6.55, for anger and sympathy, respectively) than in the controllable-need condition (Means = 4.87 and 3.89), F 's (1, 46) = 49.33 and 40.95, p 's < .001, partial eta-squared = .517 and .47, for anger and sympathy, respectively. In addition, individuals with a supportive attributional style (3.05) reported that they would be less angry at the target than did the unsupportive style individuals (3.88), $F(1, 46) = 4.36$, $p = .042$, partial eta-squared = .087.

Helping judgments. Respondents indicated that they would be more likely to help the target in the uncontrollable-need condition (6.86) than in the controllable-need condition (4.79), $F(1, 46) = 22.35$, $p < .001$, partial eta-squared = .327. There was no attributional style main effect or interaction in the overall helping judgment data; however, separate t -tests by story and condition revealed the predicted difference between supportive (8.56) and unsupportive (7.41) style individuals only for the person who fell on the bus in the uncontrollable need condition, $t(14.86) = -2.43$, $p = .02$. While the other mean helping judgments were in the right direction for the attributional style prediction, the differences did not reach significance.

Testing the attribution-affect-behavior sequence. Correlations between controllability, anger, and helping judgments⁴ (see bottom of Table 1) were examined for their consistency with the attributional model of helping (Weiner, 1995), and with two alternative models. Using the procedure of structural equation modeling in the LISREL statistical program (Jöreskog & Sörbom, 1995), we calculated the parameter estimates as well as a goodness-of-fit chi-square and the Normed Fit Index (NFI; Bentler & Bonett, 1980) statistic for each model. In structural equation modeling, a non-significant chi-square statistic and an NFI greater than .90 represent an acceptable fit between the data and model. Because the chi-square statistic is sensitive to sample size (both large and small), with our small sample, we needed a measure of fit which is relatively independent of sample

⁴We also examined the correlations between judgments of controllability, sympathy, and helping for their consistency with Weiner's (1995) emotion mediation model and the two alternative models. The SEM results again supported only the emotion mediation model. Correlations and SEM results may be obtained from the first author.

size and thus used the NFI (Bentler & Bonett, 1980). The following models were considered: Model 0, a saturated model with links among all of the variables, is useful in comparing the path coefficients to the other models, which are hierarchically-nested versions of the saturated model (cf. Graham, Hudley, & Williams, 1992). Model 1, the attributional model, is an emotion-mediation model which proposes that thoughts determine feelings which, in turn, serve as guides for behavior (Weiner, 1995). Model 2, an independent effects model, proposes that people might experience emotions independent of cognitions and that the cognitions and emotions each can directly influence actions, but as separate processes. Model 3, a cognition-mediation model, suggests that emotions influence attributions, and that it is the attributions which serve to direct behavior. Given that we tested these simple, three-variable models, our small sample size ($N = 50$) was not a barrier in interpreting the findings (Tabachnick & Fidell, 1996).

Table 1 shows the parameter estimates of each model (expressed as standardized path coefficients), their associated z-score, and, where applicable, the chi-square and NFI statistic. As shown in Table 1, of the models tested, the emotion-mediation model (Model 1) was the only one which accounted adequately for the observed correlations ($\chi^2(1, N = 50) = 3.53, p = .06, NFI = .94$).

STUDY 2. HELPING BEHAVIOR

Validity of the experimental manipulation. The experiment was designed to reflect

TABLE 1
PARAMETER ESTIMATES AND GOODNESS OF FIT OF FOUR STRUCTURAL MODELS

Parameter	Path	<i>z</i>	χ^2	<i>p</i>	<i>NFI</i>
Model 0 (saturated model)					
B ₁ : Path from controllability to anger	.71	7.19			
B ₂ : Path from anger to help	-.38	-2.57			
B ₃ : Path from controllability to help	-.54	-5.06			
Model 1 (emotion mediational model)					
B ₁ : Path from controllability to anger	.71	7.19	3.53	<i>ns</i>	.94
B ₂ : Path from anger to help	.58	-5.47			
Model 2 (independent effects model)					
B ₁ : Path from controllability to help	-.27	-2.73	35.80	<.001	.43
B ₂ : Path from anger to help	-.38	-3.71			
Model 3 (cognition mediational model)					
B ₁ : Path from anger to controllability	.73	7.19	6.34	.01	.90
B ₂ : Path from controllability to help	-.54	-5.06			
Correlations:					
	C	A	H		
Controllability	1.00				
Anger	.72*	1.00			
Help	-.59*	-.62*	1.00		

Note. A z-score greater than 1.96 indicates a significant path. For all chi-square tests, $df = 1, N = 50$. *NFI* = Normed Fit Index (Bentler & Bonett, 1980). *All correlations were significant at $p < .001$

a naturally occurring situation in which one student needs another's class notes. However, given the nature of the study and the procedure, introducing a validity check by having respondents indicate their view of the controllability of the reason for need was not possible at the time of the experiment. Furthermore, demand characteristics raised by having the respondents rate the controllability of the reason post-hoc precluded that approach. Thus, 60 first year undergraduate students (33 females, 22 males, 5 did not indicate their sex; $M = 23$ years), who were not among the original sample, read a description of one of the two reason for need conditions while imagining they had received the telephone call request, and, on 7-point scales, rated the degree to which they believed the student had personal control over the reason for need and the degree to which the student was responsible for the need (with high scores representing high personal control and high responsibility).

Respondents viewed the needy student as having less control and responsibility in the uncontrollable-need condition (Means = 1.79 and 2.20, for perceived control and responsibility judgments, respectively) than in the controllable-need condition (Means = 6.53 and 6.60, respectively), F 's (1, 57) = 348.29 and 209.87, p 's < .001, partial eta-squared = .869 and .786, respectively.

Due to the centrality of emotion in the attributional model of helping behavior, in the manipulation check study, we examined also how angry and sympathetic students would feel toward the needy student in the reason for need conditions using 7-point scales (with high scores representing greater anger and sympathy). Respondents reported they would be less angry and more sympathetic toward the needy student in the uncontrollable-need condition (Means = 1.44 and 5.45, for anger and sympathy judgments, respectively) than in the controllable-need condition (Means = 4.26 and 1.67, respectively), F 's (1, 57) = 51.74 and 188.28, p 's < .001, partial eta-squared = .476 and .768, respectively.

Helping behavior. The same number of respondents called to offer their notes (38) as did not call (37). Consistent with previous findings of helping rates in non-emergency situations (e.g., Eisenberg, Schaller, Miller, Fultz, Fabes, & Shell, 1988), of those who offered to help, more were female (61% of 41) than male (38% of 34), χ^2 (1) = 3.84, $p = .04$. Of those who offered to help, 57% telephoned within ten minutes of the request.

A logistic regression analysis of helping responses using a 2 (condition: uncontrollable, controllable) x 2 (attributional style: supportive, unsupportive) x 2 (helped: yes, no) design revealed the predicted main effects for condition and attributional style. Respondents helped more when the reason for need was 5Two problems which we identified were the university's small student body (i.e., fewer than 2700 in number), and students in the relatively small classes discussing the study before the post-hoc ratings were collected.

uncontrollable (57% of 37) than when it was controllable (44% of 38), $\chi^2(1) = 4.91$, $p = .026$, supporting the attributional model. Also, respondents with a supportive attributional style helped more often (53% of 40) than did respondents with an unsupportive style (49% of 35), $\chi^2(1) = 4.19$, $p = .04$. A significant interaction between condition and attributional style, $\chi^2(1) = 4.14$, $p = .041$, revealed the moderating impact of attributional style on the controllability information effect (see Figure 1). Respondents with an unsupportive attributional style helped more often when the need for notes was uncontrollable (69% of 16) than when the need was controllable (31% of 19), $\chi^2(1) = 4.80$, $p = .028$. In contrast, respondents with a supportive attributional style helped uncontrollable-need targets (48% of 21) and controllable-need targets (58% of 19) about equally often, $\chi^2(1) < 0$.

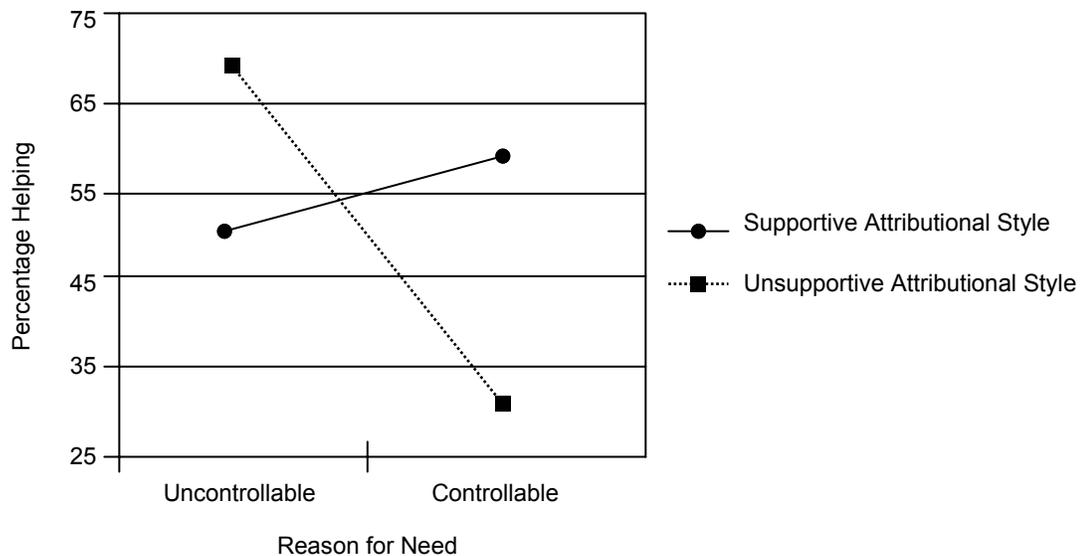


Figure 1. Percentages of respondents with unsupportive and supportive attributional styles helping in the experimental conditions.

DISCUSSION

The likelihood of helping behavior was a function of the perceived controllability of the target's need for help and the helper's habitual way of explaining the negative outcomes of others. The tendency to help the non-negligent target was, in general, greater than the level of help offered the negligent target, supporting the attributional model which postulates the centrality of causal controllability perceptions and mediational role of emotions in the progression to helping behavior (Weiner, 1980a, 1995). Moreover, the attributional style of potential helpers moderated the impact

of causal controllability information on helping behavior. Individuals with a supportive attributional style did not distinguish between negligent and non-negligent targets in their behavior - they offered help to a needy peer at the same rate whether or not the peer had control over the onset of the problem. In contrast, those with an unsupportive attributional style were very kind to the needy peer if the reason was legitimate (i.e., where a controllable explanation was not possible), and highly neglectful if the target had been negligent. Thus, the causal structure of the situation was more influential in determining the behavior of unsupportive than supportive style respondents. The finding that attributional styles moderated helping behavior demonstrates that the attributional model of helping is incomplete, and that individual differences variables must be considered in tandem with situational variables in attributional models of social behavior. In the present study, attributional styles moderated, in part, how a helping situation was interpreted, and thus what action was subsequently taken. Based on the attributional model (Weiner, 1980a, 1995), the present data suggest that the attributions made (and presumably the emotions subsequently elicited) were not as extreme for supportive style individuals as they were for those with an unsupportive attributional style. Hence, even though the situation presented may be powerful, the ways in which individuals interpret it can vary. Although the telephone study in this research was not conducive to the assessment of emotions generated in the experimental conditions, this question should be pursued in a future study.

While needy individuals were more likely to be helped by individuals with a supportive rather than an unsupportive attributional style, the helping rate of supportive style individuals overall was close to fifty percent. Thus, a needy individual was about equally likely to be helped as not helped by a supportive style individual - however, the reason for need did not seem to be relevant to the decision to help. In contrast, for unsupportive style individuals, the reason for need seems very relevant to the decision to help. Nearly seventy percent helped when the target had little control over needing help, whereas fewer than one-third helped when the target was negligent.

Why did individuals with a supportive attributional style not discriminate, and those with an unsupportive style discriminate, between negligent and non-negligent targets in their helping reactions? Evidence from three different lines of research suggests possible directions for future investigations of this question. The first line of evidence consistent with the present findings is the documented relationship between depression and the tendency to explain life outcomes with uncontrollable causes (e.g., Peterson & Seligman, 1984). In the helplessness model of depression (a self-perception theory), explaining negative outcomes with uncontrollable causes is a known risk factor for the onset and maintenance of depression (e.g., Haaga & Beck, 1995; cf. Abramson, Seligman, & Teasdale, 1978). Supportive style individuals may habitually use uncontrollable causes in their explanations of others'

negative outcomes because they are depressed and have little or no illusion of control beliefs (Langer, 1975) about their own, and others', outcomes. Hence, they may help controllable-need and uncontrollable-need targets at similar rates because they are unable to discriminate between causally different reasons for needing help. This possibility, and the relatively low helping rate in the two experimental conditions, (i.e., just about fifty percent) for supportive style individuals found in this study are consistent with helplessness deficits which accompany depression (Peterson & Seligman, 1984). Future studies which examine supportive and unsupportive style individuals' depression level and degree of self-other consistency in causal attributions about negative life outcomes should shed some light on this possibility.

The second line of evidence consistent with the present findings is research that indicates that a conservative attitude promotes more personally-controllable (e.g., laziness) causes for negative events/outcomes, whereas a liberal attitude promotes more external (e.g., poverty) or personally-uncontrollable (e.g., sickness) causes for negative outcomes (e.g., Skitka & Tetlock, 1993). It is possible that supportive and unsupportive attributional styles develop as a function of attitudes (i.e., liberalism, conservatism) which help guide explanations of life outcomes. The present findings suggest that individuals with a supportive attributional style are more able to resist controllability beliefs about others' negative outcomes - and, hence, the affective and behavioral consequences of those beliefs - than are unsupportive style individuals. In other words, there may be a difference in the ease with which each attitude can be "overruled" by causal structure information, and the present findings suggest that it may be easier to shift conservatives' typical causal explanations of others' negative outcomes than liberals' typical explanations. Future studies which explore relationships between person perception attributional styles and liberal/conservative attitudes might take into account also the potential impact of different types of causal controllability information in social situations.

A third line of evidence consistent with the present findings is the possibility that individuals with a supportive style have a history of negative life experiences which has induced a "recurrence pessimism" in relation to negative outcomes (Higgins, St Amand, & Poole, 1997). Recurrence pessimism has been demonstrated empirically in individuals who have experienced repeated uncontrollable (mild) negative outcomes, and refers to the perception of vulnerability to recurrences of similar, uncontrollable negative outcomes. We are currently investigating whether the pessimism and uncontrollability beliefs about self-risk extend to perceptions of others' control over negative outcomes and risk for harm. In contrast, individuals who have had little experience with negative outcomes, or who have experienced controllable negative outcomes tend to view such outcomes as relatively unlikely (Higgins et al., 1997; Perloff & Fetzer, 1986; Weinstein, 1989). Thus, it is possible that unsupportive style individuals - who tend to explain others' negative outcomes

with controllable causes - feel relatively invulnerable to harm themselves because they believe negative outcomes are controllable. Does this optimism about self-risk extend to perceptions of others' control over negative outcomes? We examined, informally, people's level of unrealistic optimism for "sins" (i.e., controllable negative outcomes) and "sicknesses" (i.e., uncontrollable negative outcomes) outlined by Weiner (1993) and it appears that, in general, people feel relatively protected from sins but vulnerable to sicknesses. If empirically verified, this observation would be consistent with other evidence of the impact of perceived controllability on the optimistic bias; that is, that the bias is greater for those events over which we feel that we have control than for those which we feel are uncontrollable (see Harris, 1996 for a review). Such experience effects may provide insight into the development and maintenance of supportive and unsupportive attributional styles.

In addition to the central findings, the results of the present studies point to the stability and generality of attributional styles measured by the Reason for Misfortune Questionnaire (RMQ; Higgins, 1992). In Study 1, four weeks later and in response to unrelated hypothetical helping situations, attributional styles predicted who viewed others' negative outcomes as more controllable by the targets. The situations on the helping questionnaire were relatively detailed compared to the single-word outcome descriptors on the RMQ. This means that the styles measured by the "projective" type of items on the RMQ generalized to more detailed helping scenarios, and provide cross-validation evidence in support of the RMQ. The experimental data (Study 2) also provide a cross-validation of attributional styles measured by the RMQ. Eight weeks after the attributional styles were measured, and in response to an unrelated, actual helping situation, the supportive and unsupportive styles predicted who helped a needy peer and under which conditions.

A major limitation of the helping experiment was the drop in sample size from the initial contact to the experiment. A larger initial sample of participants would have provided a bigger pool of individuals with supportive and unsupportive attributional styles to draw upon for the experiment. Also, given that attributional style impacted on helping judgments and behavior up to eight weeks later, in future studies, shortening the time between initial contact and an impact study would reduce the loss of potential participants.

In conclusion, different habitual ways of thinking about causality interacted with controllability information to determine who was helped in an actual situation of need. While non-negligent targets were helped more than the negligent - supporting an attributional model of helping behavior (Weiner, 1980a, 1995) - the attributional style of potential helpers moderated that effect. The causal structure of the situation was more influential in determining the behavior of unsupportive than supportive style respondents. The finding that attributional styles moderated helping reactions demonstrates that the attributional model is incomplete, and that

individual differences must be considered in tandem with situational variables in the model. It is clear that the research needed for a comprehensive understanding of person perception attributional styles has only just begun. Moreover, further experimental research is needed to improve our understanding of person-situation interactions in social behavior.

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