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**“An Attribution-Empathy Model of Helping Behavior:  
Behavioral Intentions and Judgements of Help-giving”**

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# **An Attribution-Empathy Model of Helping Behavior: Behavioral Intentions and Judgments of Help-giving**

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*In this article, the integration of an attribution approach and an empathy approach to helping behavior is pursued, and causal relationships among variables independently studied in these two areas are investigated. The data from two experiments (on judgments of help-giving and actual help offered, respectively) strongly suggest that causal attributions and empathy induced by manipulating the subjects' perspective in approaching a helping scenario additively determine helping behavior. The proposed mediating role of perceived controllability of attributions and empathic emotions was supported. In addition, the perspective of a potential helper (empathic vs. objective) was found to influence the perception of controllability of the causal attribution for a victim's need. A structural equations model was developed and tested, integrating causal attributions, induced empathy, and empathic emotions as determinants of helping behavior.*

A general review of the literature on helping behavior shows various theoretical explanations based on a limited number of factors, which in most cases ignore variables studied within other approaches. In some cases, different approaches have studied similar variables, suggesting that common processes might be involved and that integration might be possible. This seems to be the case in the attribution approach (e.g., Weiner, 1980a) and the empathy approach (e.g., Batson & Coke, 1981) when applied to the study of helping behavior. According to the attribution approach, interpersonal emotions such as pity and sympathy mediate the effects of causal attributions for a person's need on helping. In a similar manner, the empathy approach has proposed such emotions as mediators of the effects of empathic perspective taking on helping. Furthermore, cognitive processes are involved as antecedents of emotions in both cases.

The objective of the present research is to integrate an attribution and an empathy approach in the study of helping behavior. The elements proposed to influence helping

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within each of these approaches are examined within the context of the elements of the other, and an integrating model is proposed. The following two experiments used judgments of help-giving and behavioral intention paradigms to test the proposed model through the analysis of structural equations and log-linear models, respectively.

### THE ATTRIBUTION APPROACH

The basic proposition from an attribution perspective states that a person's causal attribution for another person's need in a given situation influences helping (e.g., Ickes & Kidd, 1976; Meyer & Mulherin, 1980; Weiner, 1980a, 1980b). The most developed studies in this area suggest that the influence of attribution processes on helping behavior is at least partially mediated by affective reactions.

Weiner's (1980a) attributional model of helping behavior suggests that another person's need in a given situation elicits a search for causes concerning "why" there is a need. The causal attributions a person makes give rise to affective reactions, which, in turn, influence behavior. Although certain attributions may directly influence behavior independent of the affective reactions, the most important influence of attributions is thought to be through a cognition (attribution) → emotion sequence. For example, it has been documented (for a review see Weiner, 1986) that the attribution of a person's need to a controllable cause (e.g., lack of effort) elicits anger, which inhibits helping. If the need for help is attributed to an uncontrollable cause (e.g., a physical handicap), pity is elicited, which, in turn, increases the probability of helping.

### THE EMPATHY APPROACH

There are various approaches in the study of prosocial behavior in relation to empathy. The one of interest here is that developed by Batson and collaborators (Batson & Coke, 1981; Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Batson et al., 1988; Batson, O'Quin, Fulz, Vanderplas, & Isen, 1983; Toi & Batson, 1982). Their study of helping behavior embraces two basic ideas: first, that taking the perspective of another person (empathic set) will increase helping; second, that helping is mediated by so-called empathic emotions.

Previous evidence (e.g., Piliavin, Piliavin, & Rodin, 1975) has suggested that emotions associated with empathy under certain conditions may facilitate neglect. Batson and his associates therefore proposed to study qualitatively different affective reactions to the experience of others. These different emotions are assumed to influence helping in different ways. Specifically, interpersonal emotions such as compassion and sympathy (called empathic emotions) are assumed to influence helping positively, regardless of whether the potential helper has an "easy" way out of the situation without helping. In contrast, feeling upset or disturbed because of another's need or suffering (called distress emotions) would increase helping only when escape from the situation is difficult. In addition, the kind of helping associated with the so-called truly empathic emotions is assumed to be altruistic, whereas that associated with distress emotions is conceived as egoistic or selfish in nature. Egoistic

helping is assumed to be motivated by the reduction of the distress caused by another person's need; altruistic helping is assumed to be motivated by a genuine unselfish interest in benefiting the needy person.

### DEFINITIONS

Although the influence of empathy on various forms of prosocial behavior has generally been found to be significant, the diversity of measures and conceptualizations of empathy has caused some confusion (for a review see Eisenberg & Miller, 1987). For the sake of clarity, some definitions seem appropriate at this point.

For the purpose of this research, empathic perspective is conceived as an observational set characterized by a concern for another person's situation. Induced empathy is then defined as the result of adopting such an observational set and is characterized by both the apprehension of the other's emotional state and one's experience of particular affective reactions. Induced empathy is understood as different from dispositional empathy, which is an individual differences measure of empathy as a trait (e.g., Mehrabian & Epstein, 1972).

The affective reactions associated with induced empathy are classified as empathic emotions and distress emotions. As in the research of Batson and his associates (e.g., Toi & Batson, 1982), a dominant emotional response index is formed by subtracting distress emotions from the so-called empathic emotions. Specifically, empathic emotions are represented by the average ratings of feeling sympathetic, compassionate, and moved. Distress emotions are represented by the average ratings of feeling alarmed, upset, disturbed, and grieved.

Another term that needs clarification is *helping behavior*. In their study of helping, Batson and his associates have differentiated between altruistic and egoistic helping. However, for the purpose of this article, helping behavior is understood as a form of prosocial behavior, independent of its altruistic or egoistic nature. No attempt is made to test or make any inference concerning whether helping is altruistic.

For this reason, it is important to note that only easy-to-escape situations were used in the present experiments. This implies that the subjects could leave the helping scenario without helping and face no significant personal cost. In the two experiments presented here, participation was anonymous, assuring the subjects that no one would know whether they had helped or not. Furthermore, a situational factor (i.e., large class size) made it unlikely that the subjects would meet the victim in the future.

Concerning attributional concepts, it is important to clarify the difference between a given causal attribution for a need (e.g., an accident or lack of effort) and the perceived controllability of that attribution (how much a participant perceives the cause to be subject to volitional control or influence). Whereas attributions are manipulated by the experimenter, so that the cause of the need may be perceived as more or less controllable, the perception of controllability is a measure of how the subjects actually perceive the corresponding cause.

The subjects' perception of controllability of causal attributions is important within the context of Weiner's theory of motivation and emotion (for reviews see Weiner,

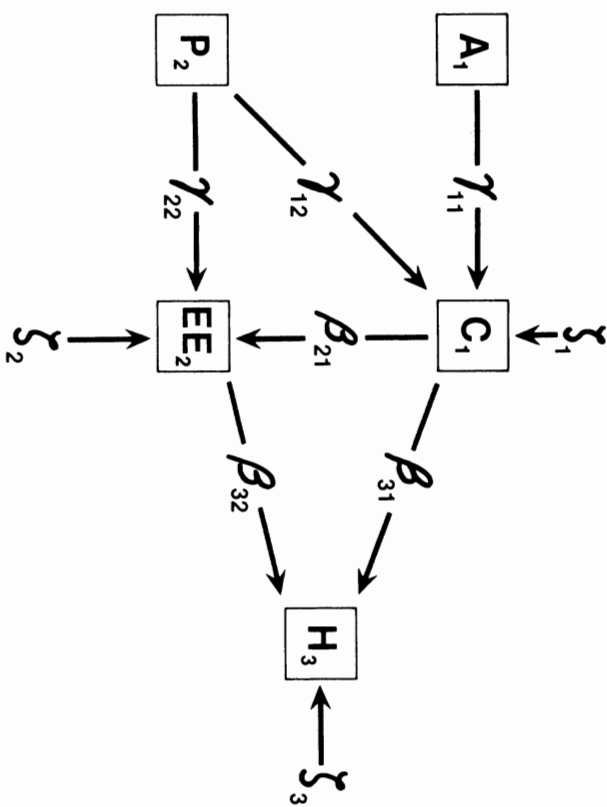
1985, 1986). Even though knowledge of the cause of a behavioral outcome is believed to have direct effects, the individual's perceptions of the properties of those causes (locus, stability, or controllability) are assumed to be mostly responsible for the psychological and behavioral effects of attributions. In addition, there are individual as well as cross-cultural variations in the perception of those properties of causes (e.g., Belancourt & Weiner, 1982). Hence, the measure of perceived controllability of causal attributions is important as a manipulation check, because it shows whether the causal attribution for each condition is actually perceived as controllable or uncontrollable by the subjects. In addition, perceived controllability is important as a mediating variable, because it is the actual level of perceived controllability that theoretically determines the emotional reactions and the probability of helping. It is important to understand this, because the perception of controllability may be quite different from subject to subject even within the same attribution condition.

### AN INTEGRATION OF THE ATTRIBUTION AND EMPATHY APPROACHES

As reported above, both attribution processes and induced empathy have been proposed to constitute significant determinants of helping. Interpersonal emotions are conceived as mediators of the effects of both causal attributions and empathic perspective on helping. Moreover, it is apparent that there are similarities concerning the emotions that are assumed to be elicited by causal attributions and empathic set. Subjects who are given an uncontrollable cause are likely to experience more pity than those given a controllable cause, just as those adopting an empathic set are likely to experience more interpersonal feelings, such as sympathy and compassion, than those not taking the empathic perspective.

A second possible relationship between attribution processes and empathic set is that attribution processes may be influenced through the procedures used to induce that attribution. It has been observed (e.g., Gould & Sigall, 1977; Regan & Totten, 1975) that subjects instructed to empathize with an actor became more "functionally equivalent" to actors. In other words, the discrepancies normally observed, in which actors make more situational and observers make more dispositional causal attributions for the same behavioral outcome, decrease when observers are instructed to empathize with actors. For example, given an actor's neutral (Regan & Totten, 1975) or negative (Gould & Sigall, 1977) behavioral outcome, "empathic" observers made more situational causal attributions than "nonempathic" observers. The possibility that manipulation of one's psychological perspective through empathic instructions influences attribution processes suggests that part of the observed effect of empathic instructions on helping might be attribution mediated.

An important difference must be noted between the research concerning the reduction of actor-observer discrepancies in the attribution of causality and the present research. Whereas in the former the interest was in the type of attributions (situational vs. dispositional) that observers made when instructed to empathize, in the present research the causal attributions were given as part of the scenario in each experimental



**Figure 1** A model representing helping behavior (H) as a function of causal attributions for a person's need (A), a potential helper's psychological perspectives (P), perceived controllability of attributions (C), and empathic emotions (EE).

condition. Thus, what is tested in this case is the potential effect of empathic set on the property of perceived controllability of the attribution, not on the type of attributions (i.e., dispositional vs. situational) that subjects could make. This is theoretically important because, according to the attribution approach, it is not the attribution itself but perceived controllability that relates to emotions and helping.

The model represented in Figure 1 is therefore proposed. The cause-effect relationships represented in the model summarize the basic proposition of this research. According to this model, causal attributions for a victim's need (A) and the set, or perspective (P), adopted by a potential helper affect helping (H). The influence of attributions is mediated by the perceived controllability (C) of the cause (path A-C-H) and the empathic emotions (EE) experienced by the potential helper (path A-C-EE-H). The effect of perspective is mediated by empathic emotions (path P-EE-H) and perception of controllability of causes (path P-C-H and/or path P-C-EE-H).

For example, in a helping scenario, where different causes are provided for a student's problem with a course (e.g., uncontrollable/accident vs. controllable/going out with friends), and one approaches the situation from either an empathic or an

objective perspective, the following would be predicted: (a) One's perceived controllability of the cause will be lower not only when one is told that the cause is an accident, rather than going out with friends, but also when one approaches the scenario from an empathic perspective, rather than an objective perspective (paths A-C and P-C, respectively). (b) The more one perceives the cause of the student's problem as uncontrollable, the more one will experience empathic emotions (sympathy, compassion, pity, and so on), and the more likely one is to help the student (paths C-EE-H and C-H). (c) Independent of the perceived controllability of the cause, one will experience more empathic emotions and will also be more likely to help the student when approaching the helping scenario from an empathic perspective than when approaching it objectively (path P-EE-H). It is likely that the student will be helped most when the following two conditions are met: The cause of the problem (e.g., an accident) is perceived to be uncontrollable (paths A-C-H and A-C-EE-H), and an empathic perspective is induced (paths P-EE-H and P-C-EE-H).

Of course, other factors besides those included in the model may influence helping, either directly or through the mediating variables. This is what the Greek characters in Figure 1 represent. It is also possible that there are potentially meaningful relationships among the variables of the model that are not represented by any of the arrows. Theoretical considerations as well as methodological limitations, such as the identification of the model, make the inclusion of such effects within the model inconvenient at this point. The major objective now is the testing of a model that incorporates the main variables and relationships previously studied within two independent approaches.

Even though inclusion within the model of additional meaningful relationships is not convenient at this point, some of these can still be examined by looking at the significance level of the corresponding parameter estimates obtained through the analysis of structural equations. Specifically, two potentially relevant paths will be examined. First, according to previous research (e.g., Underwood & Moore, 1982), empathic set might directly influence helping behavior, without the mediation of empathic emotions. Recent research investigating the role of value orientation and beliefs in attribution processes and helping behavior (e.g., Betancourt & Hardin, 1988) also suggests that possibility. A second meaningful relationship not included in the model is the potential influence of emotions on the perceived controllability of attributions. If this were significant, it would imply bidirectional paths between C and EE in the model of Figure 1. In fact, there is some evidence (e.g., Gollwitzer, Earle, & Stephan, 1982; Zajonc, 1980) suggesting that under certain circumstances affects might influence attribution processes.

### THE ANALYSIS OF CAUSAL MODELS

The causal relationships between the various components of the model proposed above are examined and tested by causal modeling based on analysis of structural equations for the simulation data of Experiment 1 and by analysis of log-linear models for the behavioral intention data of Experiment 2. The use of causal modeling, particularly the analysis of structural equations, is assumed to be most appropriate for

the types of causal relationships and mediated effects investigated here. The advantages and usefulness of these methods in this area and in behavioral research in general (e.g., Bentler, 1980; Bentler & Bonett, 1980) have already been documented and discussed. For example, Reiseisen (1986), in justifying the use of causal modeling to test Weiner's attribution model of helping, argued that analysis of variance, path analysis, and similar methods of analysis do not provide a completely satisfactory test of mediation in such models. He referred to Taylor's (1976) suggestion that in the past we have used "S-R methodology to test S-O-R theories" and to Bentler's (1980) assertion that in such cases it is possible that the experimental manipulation affects other variables that may also mediate the effect observed on the dependent measure. From this perspective, and because the model proposed here involves more variables and complexity than in previous studies in the empathy and attribution areas, the causal modeling techniques are not only appropriate but necessary.

## EXPERIMENT 1

### Method

*Subjects.* Participants were 62 male and 94 female students enrolled in introductory psychology at the University of California, Los Angeles, who participated in partial fulfillment of a course requirement. Subjects were randomly assigned to 1 of the 10 conditions of a 2 (Perspective)  $\times$  5 (Attributions of Causality in the Eliciting Situation) between-subjects experimental design.

*Instrument and procedure.* Two and three subjects participated at a time. They were first provided with a one-page letter explaining the objective of the experiment. This letter stated that the study intended to evaluate how impressions about information are influenced by the perspective one takes while reading. The subjects were then given a report to read with specific instructions concerning the perspective to adopt while reading the report. Each participant received one of the two following sets of instructions, which are similar to those used in previous research (e.g., Toi and Batson, 1982).

*Empathic perspective condition:* In a moment you will be reading a report based on a real life story. While you are doing so please try to take the perspective of the person interviewed in the story. As much as you can you must imagine how the person feels about what has happened and how it is affecting his or her life. You do not have to be concerned with details. Just concentrate on trying to imagine the situation and how the person interviewed feels.

*Observation condition:* In a moment you will be reading a report. While you are doing so, please try to be as objective as possible. Do not concern yourself with feelings or with the views of the person interviewed in the story. As much as you can you must attend to the concrete facts and details concerning what actually happened. Just try to concentrate on reading the report objectively.

Subjects were given one of five reports to read, which varied in the causal attribution provided for the need described by the person interviewed in each report. The report was supposedly based on a real-life story of a student interviewed on

campus. In all cases the needy student in the story was the same sex as the experimental subject. The interviewee told his or her story, providing information concerning the problem he or she was having in school, its causes, and the consequences of an apparent failure. The five causes represented different degrees of controllability (defined as the extent to which one is able to influence or change a given cause). The student was described as having missed classes as a consequence of one of five causes, in decreasing degrees of controllability: (a) going out of town with friends and having fun, (b) going home, a cause described as controllable but not anticipated by the victim as harmful, (c) no reason given, (d) having an accident, and (e) having an accident that resulted in hospitalization and inability to read for 2 weeks. A pilot study and prestesting were instrumental in determining the degree of controllability for the causes used in all five scenarios.

After reading the report, participants in all conditions were given a set of questions, including items consistent with the deception, such as questions concerning the evaluation of the writings and the potential interest of the reports to college students. Other items concerned the perceived controllability of the cause of the problem, feelings experienced while reading the report, and the probability of helping the person.

Answers to all these items were reported on 7-point scales, anchored at the extremes. For example, the following is one of the items intended to assess perceived controllability of the cause given for the corresponding situation: "Concerning your understanding of the report, do you think that what the person in the story stated as the reason or cause of the critical situation (missing classes) was something the person could have controlled? (e.g. something the person could manage or influence." Subjects responded to this item on a scale from 1 (*not under personal control*) to 7 (*under personal control*).

For the assessment of emotions, subjects were asked how much they experienced emotions defined as empathic, such as *compassion*, *sympathy*, and *moved*, and distress emotions, such as *upset*, *disturbed*, *alarmed*, and *grieved*. These represent the emotions generally examined by Batson and his colleagues (e.g., Batson et al., 1981; Toi & Batson, 1982). The emotions of pity and anger, representative of the emotions relevant to the attribution approach of Weiner and associates, were also included in this assessment. When the subjects completed the questionnaire, they were fully informed about the nature of their participation. Two subjects who failed to report all answers and 4 who reportedly did not follow the instructions were eliminated; the number of participants for all analyses was therefore 150.

## Results and Discussion

*Effects of manipulations on mediating variables.* Although the output of the programs for the analysis of structural equations includes tests of specific relationships, information from analyses of variance (ANOVAs) is also provided here as a preliminary examination of some of the effects hypothesized by the proposed model. The mean ratings presented in Table 1 were used to test the effects of the manipulated variables on perceived controllability and emotional reactions. Because tests of

**TABLE 1: Mean Ratings of Perceived Controllability, Empathic Emotions, Distress Emotions, and Judgments of Helping for Each Experimental Condition**

Experimental Conditions	Perspective	Measure			
		Control-ability	Empathic Index	Distress Index	Helping
Extremely controllable	Objective Empathic	6.7 6.4	3.2 3.6	2.6 2.7	3.7 3.7
Controllable	Objective Empathic	6.1 4.3	3.0 4.7	2.6 3.2	3.5 5.1
Ambiguous	Objective Empathic	4.3 3.8	3.3 4.8	2.4 3.4	4.5 5.3
Uncontrollable	Objective Empathic	2.7 1.4	3.7 5.0	2.6 3.8	5.0 6.0
Extremely uncontrollable	Objective Empathic	1.9 1.5	4.2 5.1	2.5 3.6	4.3 6.0

NOTE: High scores indicate higher levels of the variables measured.

possible gender differences, on the proposed mediating and dependent measures showed no systematic effect, and no significant correlations were observed between gender and any of the variables under study, this variable is not included in the following reports of results.

As expected, the 2 (Perspective)  $\times$  5 (Attribution) ANOVA showed that scenarios based on controllable causal attributions were rated as more controllable than those based on less controllable attributions,  $F(4, 140) = 84.32, p < .0001$ . In addition, subjects in the empathic perspective condition rated attributions for the victim's need as less controllable than subjects in the objective perspective,  $F(1, 140) = 17.19, p < .0001$ . The perspective by attribution interaction did not reach significance.

To assess emotional reactions, indexes of empathic emotions and distress emotions were formed, such as those used by Batson and associates (Batson et al., 1981; Toi & Batson, 1982). The empathic emotion index was the average of ratings for feeling sympathetic, compassionate, and moved (Cronbach's alpha = .85). The distress emotion index was the average of ratings for feeling alarmed, upset, disturbed, and grieved (Cronbach's alpha = .82). Following Toi and Batson (1982), a single measure of dominant emotional response was created by subtracting each subject's score on the index of distress emotions from his or her score on the index of empathic emotions.

The effects of manipulated attributions and perspective on empathic emotions were assessed by a 2 (Perspective)  $\times$  5 (Causal Attribution of Situation) analysis of variance. This ANOVA revealed that subjects adopting an empathic perspective reacted with greater empathic emotion than subjects adopting an objective per-

**TABLE 2: Correlations Between Relevant Variables of Experiment 1 (Decimals Omitted)**

	1	2	3	4
1 Perspective				
2 Attribution	.000			
3 Controllability	-.195*	.806**		
4 Empathic emotion	.418**	-.309**	-.400**	
5 Helping	.319**	-.367**	-.430**	.454**

NOTE: For the variables perspective and attribution, higher levels correspond to empathic perspective and more controllable attribution, respectively. For the variables perceived controllability, empathic emotions, and help offered, higher scores denote higher levels of the corresponding measures.  $N = 150$ . \* $p < .01$ ; \*\* $p < .001$ .

pective,  $F(1, 140) = 35.59, p < .0001$ . The effect of attributions was also significant,  $F(4, 140) = 5.20, p < .001$ , indicating that scores on the empathic index were higher for stories based on less controllable attributions for the victim's need. In addition, distress emotions were greater for subjects in the empathic perspective than for subjects in the objective perspective,  $F(1, 140) = 16.13, p < .0001$ . Neither an effect for attribution nor an effect for the attribution by perspective interaction was observed on distress emotions.

The ANOVA on the dominant emotional response showed that subjects in the empathic perspective condition scored significantly higher on the index of dominant emotional response than subjects in the objective perspective condition,  $F(1, 148) = 3.99, p < .05$ . The effect of the manipulated attributions was also significant,  $F(4, 145) = 2.54, p < .05$ . Scores on the index of dominant emotional response were higher for stories based on less controllable attributions for the victim's need than for those based on more controllable attributions.

*Analysis of causal models.* The correlation matrix shown in Table 2 was used to perform analyses of causal models using LISREL V (Jöreskog & Sörbom, 1981) programs for analysis of linear structural relationships by the method of maximum likelihood. First, the proposed model (see Figure 1) was analyzed. The goodness of fit measure indicated that this model satisfactorily accounted for the data,  $\chi^2(3) = 2.37, p = .499$ . The parameter estimates, standard errors, and  $T$  values for the relevant causal paths of the model, as well as the maximum modification index provided by LISREL V, are presented in Table 3. The possibility that a causal path from empathic emotions to perceived controllability could be significant was also considered. However, the corresponding parameter estimate of a model including this path (beta<sub>12</sub>) indicated that it did not contribute significantly in accounting for the data and it did not provide a better fit (see Model B in Table 3).

An alternative model, identical to Model A except that the causal path from perspective to perception of controllability (gamma<sub>12</sub>) was fixed to zero, was ana-

**TABLE 3: Test of Causal Models, Experiment 1**

Model	Parameter Estimate	Standard Error	T Value	Maximum Modification Index
<b>Model A</b>				
Gamma <sub>11</sub>	.806	.077	10.49	Gamma <sub>12</sub> = 1.13
Gamma <sub>22</sub>	.353	.119	2.97	
Gamma <sub>12</sub>	.195	.077	2.54	
Beta <sub>21</sub>	.331	.119	2.78	
Beta <sub>31</sub>	.296	.127	2.32	
Beta <sub>32</sub>	.335	.127	2.64	
<b>Model B</b>				
Gamma <sub>11</sub>	.828	.086	9.61	Gamma <sub>12</sub> = 1.13
Gamma <sub>22</sub>	.343	.120	2.85	
Gamma <sub>12</sub>	.226	.092	2.45	
Beta <sub>21</sub>	.384	.145	2.65	
Beta <sub>12</sub>	.072	.115	0.63	
Beta <sub>31</sub>	.296	.127	2.32	
Beta <sub>32</sub>	.335	.127	2.64	
<b>Model C</b>				
Gamma <sub>11</sub>	.806	.081	9.90	Gamma <sub>12</sub> = 5.98
Gamma <sub>22</sub>	.353	.117	3.03	
Beta <sub>21</sub>	.331	.117	2.84	
Beta <sub>31</sub>	.295	.124	2.38	
Beta <sub>32</sub>	.335	.127	2.64	

lyzed. This model did not provide a good fit for the data,  $\chi^2(4) = 8.70, p < .07$ . In addition, the maximum modification index provided by the analysis (see Model C in Table 3), which corresponds to the path from perspective to perception of controllability (gamma<sub>12</sub>), was large enough to suggest that a model such as Model A, which includes that path, would better account for the data. In fact, the difference in goodness of fit between the proposed model and the one excluding gamma<sub>12</sub> was significant,  $\chi^2(1) = 6.4, p < .02$ , justifying the proposed path and confirming that Model A provides the best fit for the data.

The low value of the maximum modification index for Model A (gamma<sub>12</sub>), suggests that no additional paths within the model would significantly improve the fit of these data. However, it is interesting that this parameter represents a direct path from perspective to helping, independent of the mediating empathic emotions. As reported above, there is evidence suggesting such an effect (e.g., Underwood & Moore, 1982). Hence, this relationship, along with the possibility that manipulating perspective might also activate other variables such as beliefs or values so that they directly influence helping, is worthy of additional study.

A series of additional analyses was performed using latent variables representing emotional reactions. Two latent variables were formed, one consisting of pity and the three empathic emotions of previous analyses and another consisting of the four distress emotions. Three alternative models were then analyzed. These models were identical to the model in Figure 1 except that the latent variables instead of the index of dominant emotional response (EE) were used. One model included the two (distress and empathic emotion) latent variables at the same time, the second included only the empathic emotion variable, and the third used only the distress emotion latent variable.

Results from the analyses of these models showed that when both distress and empathic emotions were included as two latent variables, the model did not fit the data,  $\chi^2(39) = 116, p = .001$ . The two models using the distress or the empathic emotion latent variables independently both provided a good fit for the data. However, even though the model using the distress emotion variable provided a satisfactory fit,  $\chi^2(18) = 24.67, p = .13$ , the model using the empathic emotion variable provided a better fit for the data,  $\chi^2(12) = 14.82, p = .25$ .

As a whole, these analyses demonstrated that the proposed model represented in Figure 1 satisfactorily accounts for the observed data. Hence, the main propositions of this study, (a) an integration of the attribution approach and the empathy approach to helping behavior and (b) the importance of emotions as mediators between cognition and action, were supported. In addition, support was provided for the proposition that perceived controllability is affected by induced empathic perspective.

The results from the analyses of models including the distress and empathic emotion latent variables, simultaneously and one at a time, suggest that these two sets of emotions influence helping in different ways. Although they both positively relate to helping, the two types of emotions appear to function as different factors. These results suggest that the nature of the influence of interpersonal emotions on helping deserve further study.

## EXPERIMENT 2

Experiment 2 was designed to investigate the effects of and the relationships between the variables of the model tested in Experiment 1, using an actual offer of help rather than a simulational judgment. A situation was designed in which subjects read a letter requesting help. This letter was supposedly from a victim in a story they had read. The subjects then had the opportunity to offer help to the needy person. Empathic perspective and causal attribution for the person's need were manipulated in the same way as in Experiment 1. Measures of perceived controllability and emotional reactions were also obtained as in Experiment 1. However, only two instead of five attribution situations (controllable vs. uncontrollable) were used. Further, because of the nature of the data obtained and the number of participants, log-linear analysis was performed, but only for attribution, perspective, and helping, excluding the perceived controllability and empathic emotion mediating variables. Therefore, even though ANOVA and correlation analyses can show how these mediating variables relate to the independent variables (attribution and perspective) and to helping, Experiment 2 is conceived as a partial replication of Experiment 1.

## Method

**Subjects.** Participants were 29 male and 32 female students enrolled in introductory psychology at the University of California, Los Angeles. Subjects were randomly assigned to one of four conditions of a 2 (Perspective)  $\times$  2 (Causal Attribution) between-subjects experimental design.

**Procedure.** The procedure was essentially the same as in Experiment 1, except that the subjects participated individually. On their arrival at the experimental room, participants received a one-page introduction to the experiment, similar to that used in Experiment 1. They were then given the perspective-taking instructions (either the empathic or the objective perspective instructions used in Experiment 1), and they read the controllable (No. 2) or the uncontrollable (No. 4) eliciting situation used in Experiment 1.

Immediately after reading the report, subjects answered a brief questionnaire including deceptive items concerning the evaluation of the written material, as well as items on perceived controllability of the causal attribution for the person's need and items asking for ratings of the feelings they experienced while reading the report.

At this point, the measurement of the helping variable took place. The experimenter asked the participant for the name of the person interviewed in the report and the participant's section of introductory psychology. The experimenter then expressed surprise over the fact that the participant was in the same section as the student interviewed in the story and asked whether he or she knew the student. The experimenter then explained that when interviewed and told about the purpose of writing the report, the student had asked the writer to convey a personal letter to any student from her or his section of introductory psychology who might participate in the study (there were five large sections of introductory psychology that quarter, some with over 200 students). After this deception, the experimenter gave the letter to the subject, suggesting that he or she take some time to read it before leaving but that the student's participation in the reading perspective study was over. Then the experimenter went back to his desk on the other side of the room, facing the opposite wall, and continued working. This allowed the participant to read the letter in private. The letter read as follows:

Dear Classmate: First of all, I would really appreciate your taking some time to read this letter. It is difficult for me to write to someone I do not know and may never meet. However, since I am also taking Psyc 10, I thought that someone from my section might sign up for this experiment and read about my situation. That is why I asked the interviewer to attach this letter. Since this has nothing to do with your participation in that study, you are under no obligation to read or answer it. As you might imagine, I am still having serious problems with some of my classes. I am sure that with a little help from someone who would go over the notes with me and clarify a few questions, I could catch up. Since you are in my section I thought you might be able to take one or more hours to help me out. If you would be willing to help, please write your name, telephone number, and the number of hours you would help on the back of this letter, so that I can get in touch with you. If you would rather not, just leave it

blank and put it back in the envelope. In either case, please seal the envelope and leave it there so someone can pick it up for me later. Thank you.

After the participant read the letter, and sealed the envelope, and was leaving, he or she was called back into the room and questioned by the experimenter about the believability of the story and suspiciousness concerning the actual objective of the experiment. Finally, participants were fully debriefed. Four participants were eliminated because of suspiciousness and 1 because of a procedural error, leaving a final *N* of 56.

## Results and Discussion

As in Experiment 1, no significant relationships were observed between gender and any of the variables under study. Nevertheless, correlations suggest a possible relationship between gender and the perception of controllability ( $r = .151$ ) and empathic emotions ( $r = .160$ ). These nonsignificant correlations indicate that females, as compared with males, tend to perceive the causes of a person's need as less controllable. At the same time, they tend to experience more empathic emotions. However, no differences in helping were observed.

*Effects of experimental manipulations on mediating variables.* To assess the effects of the two experimental manipulations on the proposed mediating variables, perceived controllability and empathic emotion, 2 (Perspective)  $\times$  2 (Attribution) ANOVAs were performed. These analyses revealed significant main effects of causal attributions and perspective on ratings of controllability. As observed in Experiment 1, the story based on a controllable attribution was rated as more controllable than the story based on an uncontrollable attribution,  $F(1, 52) = 152.96, p < .0001$ . The effect of perspective on perceived controllability also replicated Experiment 1. Subjects in the empathic perspective condition perceived the causes as less controllable than subjects in the objective condition,  $F(1, 52) = 5.11, p < .05$ . The ANOVA on empathic emotions revealed that subjects in the empathic perspective condition reported higher levels of empathic emotions than subjects in the objective condition,  $F(1, 52) = 13.42, p < .001$ . In addition, the story based on an uncontrollable cause resulted in higher levels of empathic emotions,  $F(1, 52) = 4.6, p < .05$ .

*Relationships between the mediating variables and helping.* A correlation matrix similar to that reported for Experiment 1 is presented in Table 4. Of course, differences in sample size and the nature of the data should be considered in comparing correlations for the two experiments. The overall pattern of correlations tends to support the relationships proposed in the model presented in Figure 1 and tested in Experiment 1. However, a weaker correlation between perceived controllability and help offered suggests that even though perceived controllability still directly relates to helping, in this case the most significant influence of controllability might be through empathic emotions.

*Helping.* The dependent measure was recorded as help offer versus neglect. Although subjects were asked for the number of hours they wanted to help, over 70% of those who offered help did not specify the number of hours.

**TABLE 4: Correlations Between the Variables of Experiment 2 (Decimals Omitted)**

	1	2	3	4
1 Perspective				
2 Attribution	.000			
3 Perceived controllability	-.354**	.862***		
4 Empathic emotion	.285*	-.246*	-.333**	
5 Help offered	.254*	-.071	-.151	.387**

NOTE: For the variables perspective and attribution, the higher levels correspond to empathic perspective and more controllable attribution, respectively. For the variables perceived controllability, empathic emotion, and help offered, higher scores denote higher levels of the corresponding measures. *N* = 56.

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

Chi square and analyses of log-linear models were performed to test the relationships between the manipulated variables and offers for help. As expected, both empathic perspective,  $\chi^2(1) = 3.62, p < .06$ , and uncontrollable attributions for the victim's need,  $\chi^2(1) = 5.98, p < .02$ , were associated with a higher occurrence of help offering (see frequency distribution in Table 5).

Results from the analysis of log-linear models (see Table 5) showed that the model that best fit the data included the association of helping with both perspective and attribution (AP, AH, PH). Although the model that included only the attribution-helping association (AP, AH) closely fit the data, there was a significant difference in goodness of fit between this model and the one that included the perspective-helping association and the attribution-helping association at the same time (Model AP, HP, HA),  $G^2(1) = 4.13, p < .05$ . The results of these log-linear analyses, in addition to the ANOVA and correlation analyses for the relationships not included but reported above, provided support for the proposed model.

## GENERAL DISCUSSION

The main goals of this research were to combine previous findings from the attribution and empathy approaches to the study of helping behavior, discover the relationships among variables independently studied in these two areas, and propose an integrating model that would advance knowledge concerning helping behavior. The data from the two experiments supported the proposed model and the merits of pursuing integration in this area.

The results strongly support the proposition that empathy and causal attributions additively determine helping behavior. The proposed mediating role of perceived controllability of attributions and empathic emotions was also verified. It is particularly interesting to observe that the same empathic emotions proposed to influence helping are affected by both perceived controllability of causes and empathic perspec-

**TABLE 5: Log-Linear Analysis of Relevant Models for the Variables of Attributions (A), Perspective (P), and Helping (H), Experiment 2**

Attribution	Perspective	Helping		
		Help	Neglect	Total
<b>A. Observed Frequency</b>				
Controllable	Empathic	5	9	14
	Objective	2	12	14
	Total	7	21	28
Uncontrollable	Empathic	10	4	14
	Objective	6	8	14
	Total	16	12	28
Total N = 56				
<b>B. Goodness-of-Fit Information for Relevant Models</b>				
Model	df	G <sup>2</sup>	p	
AP	4	12.03	.0172	
AP, H	3	10.23	.0167	
AP, HP	2	6.57	.0374	
AP, HA	2	4.13	.1269	
AP, HP, HA*	1	0.00	1.0000	

NOTE: The term AP included in all models, accounts for the association between the two experimental manipulations.

\* Best-fitting model.

tive, reflecting the importance of emotions as mediators between cognition and action in social behavior.

Concerning attributional processes, the discovery of a relationship between empathic set and perceived controllability as a property of causal attributions is theoretically relevant. In this case, it is not that subjects provide more dispositional versus situational causal attributions (Gould & Sigall, 1977; Regan & Totten, 1975). Rather, when the same causal attribution for a need is given, subjects differ in their perceived controllability of that attribution, depending on whether they approach the eliciting situation from an empathic or a nonempathic perspective. According to Weiner's (1985) attribution theory of motivation and emotion, it is not just the cause to which an outcome is attributed that determines the psychological consequences. It is actually the perceived property of the causal attribution that constitutes a major influence on emotional, motivational, and behavioral consequences. Therefore, the observation that cognitive set affects the perception of controllability of a given cause makes it more relevant for attributional research to be concerned not only with the attribution itself (generated either by the experimenter or by the subject) but also with the

individual's perception of the properties of that attribution. The phenomenological aspect of the properties of causal attributions appears to be an interesting target for research if one wants to fully understand the effects of attributions on emotion and action.

Interesting issues pertaining to the nature of the mediating role of emotions in prosocial behavior emerge from the analysis of models including distress and empathic emotions independently. Recent studies (e.g., Batson et al., 1983; Carlson, Charlin, & Miller, 1987; Schaller & Cialdini, 1988) have addressed discrepancies concerning the nature of the influence of interpersonal emotions in prosocial behavior. The structural equations analysis seems to support the position that these two variables influence helping differentially. As observed in Experiment 1, even though the two types of emotions were positively correlated with helping, they appear to relate to helping as two different factors. In addition, it is apparent that when only one of them is considered, empathic emotions is a better predictor. However, because this research examined only scenarios in which escape from the situation was easy, little can be said about issues such as the altruistic versus hedonistic or selfish nature of the influence of emotions on helping. Whether the present findings apply to situations that are more difficult to escape is an empirical question that cannot be answered using these data. Nevertheless, altruistically motivated help is theoretically more likely to occur than egoistically motivated help in easy-to-escape situations. In view of the present findings regarding interpersonal emotions, this proposition seems to be confirmed. Additional research using the present methodology to examine the role of emotions, including situations where escape is difficult, might shed light on some of these issues.

Methodologically, considering the results from the two experiments, it can be observed that the simulational and actual help data revealed similar patterns. This aspect of the results strongly supports the legitimacy of simulational studies. Yet, each study provided unique information. The correlational data of Experiment 1 were needed to fully test the model shown in Figure 1, but the "real life" setting of Experiment 2 provided insights concerning other determinants of helping not incorporated within the model. For example, an actual offer of help required that the student be in the same class as the needy person, a clearly relevant variable subsumed under the general concept of expectancy (response-outcome contingencies) but not included in Model A. Although simulational data may provide unique insight about the process under study, "real life" data are important to understand the situational determinants of the behavior being examined.

From a more general perspective, there seem to be obvious benefits in attempting to integrate knowledge in the area of helping behavior as well as in social psychology in general. This research suggests that the study of helping in the area of empathy could benefit from developments in attribution theory as much as the attributional approach may advance by considering developments in the area of empathy. In a similar manner, different approaches concerned with the study of the same behavioral domain in social psychology might benefit from developing more comprehensive models or integrating efforts. It seems apparent that the availability of methods of

analysis such as causal modeling might facilitate the kind of progress that the hyperfragmentation of knowledge observed in our discipline seems to demand.

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