

Negative-State Relief and the Empathy-Altruism Hypothesis

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We conducted 3 studies to test Cialdini et al.'s (1987) suggestion that the motivation to help associated with empathic emotion is directed toward the egoistic goal of negative-state relief, not toward the altruistic goal of relieving the victim's distress. To test this suggestion, we led empathically aroused Ss to anticipate an imminent mood-enhancing experience. We reasoned that if the motivation to help associated with empathy were directed toward the goal of negative-state relief, then empathically aroused individuals who anticipate mood enhancement should help less than those who do not. Study 1 verified the effectiveness of our anticipated mood-enhancement manipulation; results indicated that this manipulation could serve as an effective source of negative-state relief. Results of Studies 2 and 3, in which empathy was either measured or manipulated, indicated that the rate of helping among high-empathy Ss was no lower when they anticipated mood enhancement than when they did not. Regardless of anticipated mood enhancement, high-empathy Ss helped more than low-empathy Ss. These results failed to support a negative-state relief explanation of the empathy-helping relation; instead, they supported the empathy-altruism hypothesis.

Does feeling empathy for a suffering person evoke altruistic motivation? That is, does empathy evoke motivation to help directed toward increasing that person's welfare rather than one's own? A series of studies designed to test this empathy-altruism hypothesis suggest an affirmative answer (Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Batson, Dyck, Brandt, Batson, Powell, McMaster, & Griffitt, 1988; Batson, O'Quin, Fultz, Vanderplas, & Isen, 1983; Fultz, Batson, Fortenbach, McCarthy, & Varney, 1986; Toi & Batson, 1982).

New Egoistic Explanation of the Evidence for the Empathy-Altruism Hypothesis: Negative-State Relief

Cialdini, Schaller, Houlihan, Arps, Fultz, and Beaman (1987) have recently proposed a new egoistic explanation of the apparent evidence for the empathy-altruism hypothesis. Cialdini et al. accept that the motivation to help associated with empathic emotion is not directed toward the egoistic goal of reducing one's own empathic arousal, as had often been assumed (e.g., Hoffman, 1981; Krebs, 1975; Piliavin & Piliavin, 1973). However, they still believe that the motivation is egoistic. Using Cialdini's negative-state relief model (Cialdini, Baumann, & Kenrick, 1981; Cialdini, Darby, & Vincent, 1973), they suggested that individuals who experience empathy when witnessing another person's suffering are in a negative affective state—one of

temporary sadness or sorrow—and that these individuals help in order to relieve this negative state: "Because helping contains a rewarding component for most normally socialized adults . . . it can be used instrumentally to restore mood" (Cialdini et al., 1987, p. 750). If the Cialdini et al. (1987) argument is correct, then the often-observed increased rate of helping by empathic individuals is, as they have asserted, motivated not by an altruistic desire to relieve the victim's distress but by "an entirely egoistic reason: personal mood management" (p. 750).

Evidence for the Negative-State Relief Explanation

Cialdini et al. (1987) sought to test their negative-state relief explanation for the empathy-helping relation by conducting two experiments. In the first, they introduced a perspective-taking instruction to manipulate empathy (Stotland, 1969; Toi & Batson, 1982) and mood-enhancing experiences (payment or praise) to provide negative-state relief (Cialdini et al., 1973) into a procedure that included essentially the same need situation, opportunity to help, and escape manipulation used by Batson et al. (1981) to provide evidence for the empathy-altruism hypothesis.

This experiment's results patterned in some respects as predicted by the negative-state relief explanation, but they were neither very strong nor very consistent. First, it was not clear that the perspective-taking instructions were successful in manipulating empathy in the crucial easy-escape cells (and there was some evidence that these instructions introduced demand characteristics, arousing social desirability needs). Second, in the four cells designed for replication (Low vs. High Empathy $\times$ Easy vs. Difficult Escape), results did not clearly replicate the one-versus-three pattern reported by Batson and his co-workers; results patterned more as two main effects, suggesting that motivation in the high-empathy condition remained egois-

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tic. Third, although the rate of helping was somewhat lower for high-empathy-easy-escape subjects who had an interposed rewarding experience, as predicted by the negative-state relief explanation, the decrease was clear only for the paid subjects, not for those praised. Finally, payment decreased the rate of helping in the difficult-escape condition as much as in the easy-escape condition, which suggested the presence of processes other than negative-state relief, such as reactance (Brehm & Cole, 1966).

In their second experiment, Cialdini et al. (1987) did not interpose a mood-enhancing experience between exposure to another person's suffering and the opportunity to help; instead, they interposed information designed to convince subjects that helping would not enhance their mood because they had taken a mood-fixing drug (Manucia, Baumann, & Cialdini, 1984). Perspective-taking instructions similar to those used in the first experiment served to manipulate empathy. Results for a scaled measure of amount of help offered patterned reliably as predicted by the negative-state relief model; the increased helping of high-empathy subjects disappeared when they were informed that helping would not enhance their mood. A dichotomous measure of whether subjects offered help did not, however, pattern reliably.

Cialdini et al. (1987) concluded that these two experiments "appear to support an egoistic (Negative-State Relief model) interpretation over a selfless (Empathy-Altruism model) interpretation of enhanced helping under conditions of high empathy" (p. 757). They were careful to point out, however, that their case was not airtight because distraction could have been a confound in each experiment: "The reward procedures of Experiment 1 or the placebo-drug procedures of Experiment 2 may have turned subjects' attention away from their empathic emotions" (Cialdini et al., 1987, p. 757). Cialdini et al. recognized that their results offered no strong disconfirmation of a distraction explanation, and they called for subsequent research to address this issue.

The possibility that distraction produced the apparent support for the negative-state relief explanation in the Cialdini et al. (1987) experiments is underscored by the results of an experiment by Schroeder, Dovidio, Sibicky, Matthews, and Allen (1988). Working at the same time as, but independently of, Cialdini et al., Schroeder et al. also sought to test the relative merits of the negative-state relief and empathy-altruism explanations using a perspective-taking manipulation of empathy and the Manucia et al. (1984) mood-fixing manipulation. However, Schroeder et al. obtained quite different results. They failed to find the drop in helping in the high-empathy-fixed-mood condition predicted by the negative-state relief model. Schroeder et al. concluded that their results were more supportive of the empathy-altruism hypothesis than of the negative-state relief explanation.

The conflicting results of the Schroeder et al. (1988) experiment and Cialdini et al.'s (1987) Experiment 2 may be due to an important procedural difference. In the Schroeder et al. experiment, subjects were informed of the drug's effects (not mood fixing vs. mood fixing) before they were exposed to the person in need. After exposure, those in the fixed-mood condition were simply reminded that the drug should fix their present mood "for the next 20 minutes or so." In the Cialdini et al.

experiment, the mood-fixing side effect was introduced for the first time after subjects had been exposed to the victim's need. The Schroeder et al. procedure seems far less likely to cause distraction.

Schaller and Cialdini (1988), recognizing that both of the Cialdini et al. (1987) experiments were subject to a distraction explanation, conducted a study in which they used the same need situation and empathy manipulation used by Cialdini et al. (1987) in Experiment 2. However, rather than interposing mood-enhancing or mood-fixing information between the empathy induction and the opportunity to help, Schaller and Cialdini led some subjects to expect that their mood would be enhanced shortly even if they chose not to help—they would listen to an audiotope of comedy routines—whereas other subjects did not expect a mood-enhancing experience. To keep distraction to a minimum, information about the upcoming tape was presented at the beginning of the study; only a brief reminder was inserted between the empathy induction and opportunity to help.

Schaller and Cialdini's (1988) results did not provide unambiguous support for either the negative-state relief explanation or the empathy-altruism hypothesis. On a scaled measure of helping, results seemed more consistent with the negative-state relief explanation, whereas on a dichotomous measure they seemed at least as consistent with the empathy-altruism hypothesis.

Schaller and Cialdini (1988) interpreted their results as more supportive of the negative-state relief explanation than the empathy-altruism hypothesis. However, they also counseled caution, for two reasons: First, in an attempt to reduce the high error variance on their helping measure, they had introduced a post hoc time-of-semester variable, which created 30 cells of small and unequal *N*s (an average of 3 subjects per cell) that were subject to unequal weighting in subsequent least squares analyses. Only in these subsequent analyses were the comparisons on the scaled measure predicted by the negative-state relief model reliable. Second, especially for the dichotomous measure, the lack of difference in helping between high- and low-empathy subjects in the mood-enhancement condition seemed due more to an unpredicted increase in helping by subjects in the low-empathy condition (.27 in the no-enhancement condition vs. .53 in the enhancement condition) than to the predicted decrease in helping by subjects in the high-empathy condition (.73 in the no-enhancement condition vs. .60 in the enhancement condition). This unpredicted increase could easily account for the observed lack of correlation between empathy and helping in the mood-enhancement condition.

Present Research

Intrigued by the Cialdini et al. (1987) proposal of a negative-state relief explanation for the evidence supporting the empathy-altruism hypothesis, but unconvinced by the evidence claimed to support this new egoistic possibility, we undertook a series of three studies. Our concern was not to question the existence of negative-state relief as a source of motivation to help, nor even to question the existence of such motivation in response to need situations like those used to test the empathy-

altruism hypothesis. Our concern was instead to test Cialdini et al.'s (1987) specific proposal that the apparent evidence for the empathy-altruism hypothesis is not a result of empathy evoking an altruistic desire to relieve the victim's distress, but a result of empathy evoking an entirely egoistic desire to relieve the helper's own negative affective state.

The negative-state relief and empathy-altruism explanations agree that empathy leads to increased helping. They also agree that a person feeling empathy for another in distress is likely to feel sadness and temporary depression. They even agree that helping is likely to dispel this sadness and depression. Where they disagree is over the nature of the motivation that is evoked by feeling empathy for another in distress. The negative-state relief explanation claims that the motivation is directed toward the egoistic goal of providing the helper with mood-enhancing self-rewards. The empathy-altruism hypothesis claims that the motivation is directed at least in part toward the altruistic goal of relieving the other's distress.

To test these competing claims while avoiding the distraction confound of the earlier work, we turned to an anticipated mood-enhancement manipulation much like the one used by Schaller and Cialdini (1988). The negative-state relief explanation predicted that when high-empathy subjects anticipate mood enhancement, their rate of helping will drop to the level of low-empathy subjects. The empathy-altruism hypothesis, on the other hand, predicted higher helping by high-empathy subjects than by low-empathy subjects, even when they anticipate a mood-enhancing experience.

Because the empathy-altruism hypothesis predicted no effect for the anticipated mood-enhancement manipulation, it was important to have independent evidence that this manipulation could provide negative-state relief. Therefore, in Study 1 we did not examine empathy at all. Instead, we examined the effect of our anticipated mood-enhancement manipulation in a research paradigm used previously by Cialdini and his colleagues to demonstrate negative-state relief.

Study 1: Anticipated Mood Enhancement and Negative-State Relief

In Study 1, we crossed a manipulation of current mood with our manipulation of anticipated mood in a 2 (neutral vs. sad current mood) $\times$ 2 (no anticipated mood enhancement vs. anticipated mood enhancement) design. From the negative-state relief model, we predicted that (a) in the no anticipated mood-enhancement condition, subjects induced to feel sad would help more than subjects not so induced, and (b) among subjects induced to feel sad, those in the mood-enhancement condition would help less than those in the no mood-enhancement condition.

Method

Subjects. Subjects were 44 students (20 men and 24 women) in an introductory psychology course at the University of Kansas. Their participation earned them partial credit for a course requirement. Using a randomized block procedure, 11 students (5 men and 6 women) were assigned to each cell of the 2 (neutral vs. sad mood) $\times$ 2 (no anticipated

mood enhancement vs. anticipated mood enhancement) factorial design.¹

Procedure. Subjects were run individually. When they arrived at the laboratory, they were greeted by an experimenter and ushered into a small cubicle. On the way in, a female confederate stopped the experimenter and asked if she could speak briefly to the subject. The experimenter said yes, but asked the confederate to wait a few minutes. This interchange set the stage for the confederate's subsequent presentation of the request for help.

In the cubicle, subjects were given a written introduction that explained that the study concerned the effects of media on feelings of happiness and sadness. Subjects read that previous research using carefully selected 5-min video cuts (taken from movies and TV programs) indicated that the videos fell into five distinct categories, each having consistent and reliable effects on mood. The categories ranged from "Category 1: Causes strong feelings of happiness and pleasure" to "Category 5: Causes strong feelings of depression and sadness." The present study was a follow up to determine the effects of these different types of cuts on different kinds of current thoughts. Subjects would be directed to think about some particular event or events, view a 5-min video from one of the five categories, and then complete a brief reaction questionnaire.

Manipulation of anticipated mood enhancement. After reading the introduction, subjects in the no anticipated mood-enhancement condition learned that they had been assigned (ostensibly randomly) to view a video from Category 4, one that would cause "moderate feelings of depression and sadness." Subjects in the anticipated mood-enhancement condition learned that they would view a video from Category 1, one that would cause "strong feelings of happiness and pleasure." (Moderate sadness was used in the no-enhancement condition because we assumed that this would most clearly reflect no mood change for subjects in the sad-mood condition described in the following paragraph.) All subjects were asked to give an example of a movie or TV show they had seen that might fit into the category to which they had been assigned. When they did, the experimenter assured them that the material they identified "was just the sort of thing in Category 4 (1)"; this provided each subject with an individually tailored concrete impression of the mood effects of the upcoming video.

Manipulation of current mood. Next, subjects were asked to think about a certain type of experience from their past, ostensibly to control their current thoughts. This reminiscence procedure—previously used by Manucia et al. (1984)—served to manipulate current mood. Subjects in the neutral-mood condition were asked to reminisce about routine activities (e.g., making a phone call, driving or walking to school, brushing their teeth, making the bed); subjects in the sad-mood condition were asked to reminisce about "an event or situation in your past that makes you feel sad when you think about it." The experimenter then encouraged subjects to dwell on the activity or experience for several minutes, focusing on and describing either the details of the activity (neutral-mood condition) or the feelings of sadness (sad-mood condition).

Check on manipulation of current mood. Following the mood induction, subjects completed a brief three-item questionnaire that assessed their current mood relative to how they felt immediately before coming into the experiment. The three items—sadder-happier, gloomy-cheerful, depressed-elated—were presented as 7-point bipolar scales (e.g., 1 = *great deal sadder*, 7 = *great deal happier*). Once subjects had completed this questionnaire, the experimenter rose to go get a copy of "an-

¹ We excluded 5 additional students from the sample: 3 expressed suspicion; 1 became so intensely involved in the sad-mood induction (recalling a friend's suicide) that the induction procedure was terminated; and 1 did not correctly complete the questionnaires.

other questionnaire I would like you to fill out before you see the Category 4 (1) video, the video that will make you feel moderately depressed and sad (very happy and pleased)."

As the experimenter opened the door to leave, the confederate, who had been sitting outside, said, "Can I go in now?" The experimenter agreed that this would be a good time for the confederate to talk to the subject, and left to get the other questionnaire.

Dependent measure: Helping opportunity. The confederate, who was blind to the subject's experimental condition, entered the cubicle, introduced herself, and explained that she was a graduate student in psychology and also a volunteer with Kansas Blood Services. She was seeking volunteers to make phone calls to collect background information from people with rare blood types who had already promised to give blood in emergencies. The confederate handed subjects a pledge form that explained what making the phone calls involved and asked for a response. Response categories were: none, 1 call (10 min), 2 calls (20 min), and so on, up to 10 calls (1 hr, 40 min). After the subject made a response, the confederate expressed thanks and left. This helping measure was identical to the one used by Manucia et al. (1984), except that our Blood Services organization was located in Kansas rather than Arizona.

Check on manipulation of anticipated mood. The experimenter then returned with the second questionnaire. On it, subjects were asked to rate, first, how they anticipated feeling while and, second, immediately following viewing the video. These two items served to check the effectiveness of the anticipated-mood manipulation.

Debriefing. Once subjects completed this questionnaire, they were fully debriefed, thanked for their participation, and excused. They did not see a video.

Results and Discussion

Effectiveness of manipulation of current mood. The midpoint (4) on the three scales used to assess current mood was labeled *no change*; lower numbers indicated more negative and higher numbers more positive current mood. Responses on the three scales (with ranges from 1 to 7) were highly correlated, so we averaged them to form a single index of current mood (Cronbach's $\alpha = .84$). Scores on this index indicated that the manipulation of current mood was effective. Subjects in the neutral-mood condition reported little mean mood change ($M = 4.37$), whereas subjects in the sad-mood condition reported feeling worse ($M = 2.79$), $F(1, 40) = 102.62$, $p < .0001$. Pairwise comparisons between cells revealed that the reminiscence procedure was highly effective in inducing the intended difference in reported current mood between the neutral- and sad-mood conditions in both the anticipated mood-enhancement and the no anticipated mood-enhancement conditions (both $ts > 7.00$).

There was also a marginally significant main effect for anticipated mood, $F(1, 40) = 3.80$, $p < .06$; subjects expecting to see a video that would make them very happy reported a somewhat more positive current mood ($M = 3.73$) than did subjects expecting to see a video that would make them moderately sad ($M = 3.43$). There was no evidence of an interaction ($F < 1.0$), nor was there evidence of any sex effects.

Although not predicted, the tendency for subjects anticipating mood enhancement to report a somewhat more positive current mood than subjects anticipating no mood enhancement seemed, in retrospect, entirely reasonable. Given the strength of the effect for current mood in each anticipated-

Table 1
Mean Number of Calls Volunteered by Subjects
in Each Cell of Study 1

Anticipated mood enhancement	Current mood	
	Neutral	Sad
No	1.64 (.64)	3.36 (.91)
Yes	2.36 (.73)	1.00 (.55)

Note. $N = 11$ (5 men and 6 women) per cell. Range for number of calls volunteered is 0–6. The numbers in parentheses are the proportions of subjects in each cell volunteering to make at least 1 call.

mood condition, the marginal main effect of anticipated mood on ratings of current mood did not appear problematic.

Effectiveness of manipulation of anticipated mood enhancement. On the final questionnaire, subjects were asked to indicate the mood they anticipated experiencing both while and immediately following viewing the video, using scales ranging from 1 (*very depressed and sad*) to 9 (*very happy and pleased*). Responses on these two scales were highly correlated, so we averaged them to form a single index of anticipated mood (Cronbach's $\alpha = .90$). Scores on this index indicated that this manipulation was also successful. Subjects in the anticipated mood-enhancement condition thought the video would make them feel happier ($M = 7.23$) than did subjects in the no anticipated mood-enhancement condition ($M = 3.71$), $F(1, 40) = 152.03$, $p < .0001$. For this measure, neither the current-mood main effect ($F < 1.0$) nor the interaction ($F = 1.42$) approached significance, and there were no sex effects.

Effect of current mood and anticipated mood on helping. Of our 44 subjects, 31 (70%) volunteered to make at least one phone call for Kansas Blood Services. Only three subjects volunteered to make more than 5 calls (one volunteered to make 6 calls, one 7, and one 10); therefore, we created a 7-point scaled measure of helping, ranging from 0 (*no calls*) to 6 (*6 or more calls*). Although responses on this scale were positively skewed, we used it as our major dependent measure to permit comparison with the results reported by Manucia et al. (1984), who had used a scaled measure of number of calls volunteered. We also analyzed helping dichotomously (0 = no help; 1 = help).

The mean number of calls volunteered by subjects in each cell of the 2 (neutral vs. sad mood) $\times$ 2 (no anticipated mood enhancement vs. anticipated mood enhancement) design is reported in Table 1. The proportion of subjects helping in each cell is reported in parentheses.

A factorial analysis of variance (ANOVA) of the number of calls volunteered revealed a highly significant interaction, $F(1, 40) = 8.36$, $p < .006$; neither the main effect for current mood ($F < 1.0$) nor the main effect for anticipated mood ($F = 2.34$, $p > .15$) was reliable. Pairwise comparisons of cells revealed that the interaction was of the form predicted by the negative-state relief model: In the no anticipated mood-enhancement condition, sad mood led to more helping ($M = 3.36$) than did

neutral mood ($M = 1.64$), $t(40) = 2.29$, $p < .03$.² Among subjects induced to feel sad, those in the anticipated mood-enhancement condition helped less ($M = 1.00$) than those in the no anticipated mood-enhancement condition ($M = 3.36$), $t(40) = -3.13$, $p < .003$. The nonsignificant tendency for subjects in the neutral-enhancement cell to help more than those in the neutral-no-enhancement cell may reflect the frequently observed tendency for good mood to increase helping (recall that anticipated mood enhancement had a marginal effect on current mood). There was also a significant main effect for sex: Women volunteered to make more calls ($M = 2.67$) than did men ($M = 1.40$), $F(1, 36) = 6.20$, $p < .02$. However, there were no reliable interactions between sex and the experimental manipulations (all F s < 2.00), so the sex effect did not qualify the support for the negative-state relief model.

Results were much the same for the proportion of subjects helping in each cell, although effects were weaker. Following the recommendations of Langer and Abelson (1972) and Winer (1971, pp. 399–400), these dichotomous data were converted to a normal approximation by arcsin transformation, and an ANOVA was performed. This analysis revealed a marginally significant interaction, $\chi^2(1, N = 44) = 3.11$, $p < .09$, and no main effects (both χ^2 s < 1.0). Among subjects induced to feel sad, the proportion helping was significantly higher in the no anticipated mood-enhancement condition (.91) than in the anticipated mood-enhancement condition (.55; $z = 2.03$, $p < .05$). The weaker effects on this dichotomous measure may have been due to a ceiling effect in the sad-mood-no mood-enhancement cell, in which 10 of 11 subjects helped.

Implications of Study 1

In general, Study 1's results patterned much as would be expected if (a) subjects induced to feel sad wanted to feel better, (b) self-rewards associated with helping provided one source of mood enhancement, and (c) expecting to see a video that would make them happy provided another source of mood enhancement and rendered mood enhancement through helping unnecessary. Results thus suggested that our anticipated mood-enhancement manipulation could indeed provide an effective means of negative-state relief.

In Studies 2 and 3, we used this manipulation to provide a distraction-free test of the viability of the negative-state relief explanation for the evidence supporting the empathy-altruism hypothesis. Because of the high error variance in helping in the need situation used by Schaller and Cialdini (1988), we turned to two other need situations that have provided evidence for the empathy-altruism hypothesis: In Study 2, subjects were given an opportunity to help a peer by taking electric shocks in his or her stead (see Batson et al., 1981, 1983, 1988). In Study 3, subjects were given a chance to help a young woman struggling to support her younger brother and sister after her parents had been killed in an automobile accident (see Batson et al., 1988; Coke, Batson, & McDavis, 1978).

In previous studies providing evidence for the empathy-altruism hypothesis, empathy has sometimes been experimentally manipulated (Batson et al., 1981, Experiments 1 & 2; 1988, Study 2), sometimes allowed to occur naturally and then

measured through self-reports (Batson et al., 1983, Studies 1 & 2; 1986; 1988, Studies 1, 3, & 4; Fultz et al., 1986, Study 1), and sometimes both manipulated and measured (Batson et al., 1988, Study 5; Coke et al., 1978, Experiment 2; Fultz et al., 1986, Study 2; Toi & Batson, 1982). The pattern of helping predicted by the empathy-altruism hypothesis has consistently been found, regardless of whether empathy is manipulated, measured, or both, suggesting the interchangeability of these two techniques for operationalizing empathy as an independent variable. To maximize generality, we decided to use each technique. In Study 2, we allowed empathy to occur naturally and then measured it through self-reports; in Study 3, empathy was manipulated using a perspective-taking manipulation like the one used by Cialdini et al. (1987), Coke et al. (1978), Schaller and Cialdini (1988), and Toi and Batson (1982).

Study 2: Anticipated Mood Enhancement and Self-Reported Empathy

To assess the nature of the motivation to help associated with self-reported empathy in a high-impact, proximate situation like watching a peer receive shocks, Batson et al. (1983) recommended the use of an index of predominant emotional response, created by subtracting each subject's score on an index of personal distress from his or her score on an index of empathy. This index of predominant emotional response appeared sensitive to the relative strength of competing motives associated with self-oriented feelings of personal distress and other-oriented feelings of empathy. If, for example, an individual experiencing a high degree of empathy were experiencing an even higher degree of personal distress, then motivation associated with the latter emotion seemed to dominate.

Following Batson et al.'s (1983) recommendation, in Study 2 we operationalized empathy as an independent variable by performing a median split on subjects' scores on an index of predominant emotional response. This split produced two groups, one experiencing a relative predominance of personal distress, the other a relative predominance of empathy. All subjects were run in an easy-escape condition (Batson et al., 1981, 1983, 1986); if they decided not to help, they would not continue watching the peer take the shocks.

Predictions

Cialdini et al. (1987) had pointed out that by making one assumption the negative-state relief explanation could account for the previously observed pattern of helping under easy escape associated with the index of predominant emotional response (high helping by subjects reporting a predominance of empathy and low helping by subjects reporting a predominance of distress; see Batson et al., 1983). The assumption is that feelings of distress

are agitation or anxiety based rather than sadness based. Because empathic concern, sadness, and distress all involve negative feel-

² At the editor's request, all statistical tests, even for directional predictions, are two-tailed.

ings, we would expect them to be strongly intercorrelated. At the same time, however, we see them as functionally distinct in their relation to helping. . . . Empathy-induced helping in the Batson et al. design is mediated by the increased sadness of high-empathy subjects witnessing a suffering other and . . . is an egoistic response designed to dispel temporary depression. (Cialdini et al., 1987 p. 750)

Given this assumption, the negative-state relief explanation made two predictions in the 2 (predominant distress vs. predominant empathy) $\times$ 2 (no anticipated mood enhancement vs. anticipated mood enhancement) design of Study 2. First, in the no anticipated mood-enhancement condition, the rate of helping by subjects reporting a predominance of empathy should be higher than the rate by subjects reporting a predominance of distress. This difference would simply replicate the difference observed previously by Batson et al. (1983, Studies 1 & 2). Second, among subjects reporting a predominance of empathy, the rate of helping should be lower in the anticipated mood-enhancement condition than in the no anticipated mood-enhancement condition. This difference was predicted because subjects in the former condition could anticipate reaching the egoistic goal of having their negative empathic state relieved without having to help, whereas subjects in the latter condition could not.

In contrast, the empathy-altruism hypothesis predicted a main effect for predominant emotional response. The rate of helping should be relatively low for predominantly distressed subjects and high for predominantly empathic subjects in each anticipated mood-enhancement condition. To relieve their own negative state would not enable empathic subjects to reach the altruistic goal of relieving the victim's distress.

Method

Subjects. The subjects were 40 students (21 men and 19 women) in an introductory psychology course at the University of Kansas. Their participation earned them partial credit for a course requirement. Using a randomized block procedure, we assigned 19 subjects (11 men and 8 women) to the no anticipated mood-enhancement condition and 21 subjects (10 men and 11 women) to the anticipated mood-enhancement condition.³

Procedure. Subjects participated individually. On arriving, they learned that they and another same-sex introductory psychology student ("Elaine" for women, "Charlie" for men, actually a confederate) would be participating in two brief studies during the hour. One was a study of task performance under aversive conditions; the other, a study of the effects of media on mood. In the task-performance study, one participant would serve as the worker, performing a series of 2-min digit-recall trials while receiving mild electric shocks at random intervals. The other participant would serve as the observer, watching the worker's performance over closed-circuit TV and forming an impression. In the media-and-mood study, participants were to watch a 5-min video from a collection found in previous research to have a highly reliable and consistent effect on viewers' mood. The purpose of this study was ostensibly to confirm identification of the media features that produced the highly reliable mood effects.

Manipulation of anticipated mood enhancement. Before beginning either study, subjects were informed of their condition for each. All subjects were assigned (ostensibly randomly) to be the observer in the task-performance study. Their condition for the media study provided the manipulation of anticipated mood enhancement exactly as in Study

1: Subjects in the no anticipated mood-enhancement condition were assigned (ostensibly randomly) to view a video from Category 4 ("causes moderate feelings of depression and sadness"); subjects in the anticipated mood-enhancement condition were assigned to view a video from Category 1 ("causes strong feelings of happiness and pleasure"). As before, subjects were asked to give an example of such material and assured that their example was "just the sort" of material in the category.

The rest of the procedure for Study 2 was much like that used by Batson et al. (1986) for their easy-escape condition, and is described in detail by them. Therefore, only key elements are described here.

Self-reported emotional response to confederate's distress.⁴ Subjects were left alone to observe Elaine (Charlie) over closed-circuit TV (actually a videotape) as she (he) performed the first 2 of 10 digit-recall trials while receiving electric shocks. By the end of the second trial, the shocks seemed to be hurting the worker so much that the assistant administering the shocks interrupted the procedure and asked if the worker was all right. Elaine (Charlie) hesitantly said yes, then asked for a glass of water before going on. The assistant agreed and left to get the water.

During this break, the experimenter spoke to subjects over an audio intercom, explaining that because there was going to be a short delay, they should complete the first impression questionnaire. For half the subjects, this was an emotional response questionnaire, which consisted of a list of 28 adjectives describing emotions. Subjects were asked to indicate on 7-point scales (1 = *not at all*, 7 = *extremely*) how much they were experiencing each emotion as a result of observing the confederate. The list of emotions included adjectives that had been found in past research (Batson, 1987; Batson et al., 1983, 1986; Coke et al., 1978) to reflect the two distinct vicarious emotions of personal distress and empathy.

The other half of the subjects did not complete the emotional response questionnaire until after they had learned of the opportunity to help Elaine (Charlie) and had made their decision about whether to help. For them, the first reaction questionnaire was an impressions questionnaire, which consisted of a series of rating scales ranging from 1 to 7 concerning the worker's attractiveness and likability, the worker's reactions to the shocks, and so on. By varying the point at which subjects completed the emotional response questionnaire, we could assess whether measuring emotions prior to helping introduced demand characteristics (Orne, 1962) that affected the rate of helping.

Helping opportunity. After 90 s, action on the tape resumed. The assistant asked if the worker had ever before been bothered by shocks, and Elaine (Charlie) confessed to having had a traumatic experience with shock as a child. (This information was provided to ensure that subjects would interpret the worker's extreme reaction to the shocks as atypical and would not expect to find the shocks as unpleasant if they chose to take the worker's place.) Hearing this, the assistant suggested that the worker not go on. But Elaine (Charlie) expressed a firm desire to continue: "I started; I want to finish. I'll go on . . . I know your experiment is important, and I want to do it." At this point, the assistant hit on an idea: The observer was also an introductory psychology student, maybe she (he) would be willing to help Elaine (Charlie) by taking her (his) place. Elaine (Charlie), with a mixture of reluctance and relief, agreed to allow the observer to be asked. The tape ended with the assistant turning off the video equipment to go check about this possibility.

About 20 s later, the experimenter's voice, sounding somewhat agitated, came over the intercom and outlined the subject's options: to either continue in the observer role or help Elaine (Charlie) out by taking

³ We excluded 8 additional students from the sample—5 from the no mood-enhancement condition and 3 from the mood-enhancement condition—because they expressed suspicion.

her (his) place as the worker, "doing the recall task and receiving the shocks."

Paralleling the reminder about the upcoming video used in Study 1, in the no anticipated mood-enhancement condition the experimenter added, "If you decide to continue as the observer, you've finished observing the two trials, so all you have to do is complete a brief questionnaire and then proceed to the next study, in which you've been assigned to view a video from Category 4, a video that will make you feel somewhat depressed and sad." In the anticipated mood-enhancement condition the experimenter said exactly the same thing up to the point of mentioning the video category, which was described as "Category 1, a video that will make you feel quite happy and pleasant." Finally, subjects were reassured that the choice was entirely up to them, whatever they wanted to do was fine.

This communication was prerecorded on audiotapes, one tape for each anticipated-mood condition. At this point in the procedure, the experimenter simply selected the appropriate tape and played it over the intercom.

The subject was left alone for about 30 s after the audiotape ended. Then the experimenter entered the observation room and asked for the subject's decision, which was the measure of helping. Next, the subject was asked to fill out the second reaction questionnaire while the experimenter went to tell the assistant what had been decided. For subjects who had previously completed the emotional response questionnaire, the second reaction questionnaire was the impressions questionnaire; for subjects who had previously completed the impressions questionnaire, it was the emotional response questionnaire.

Check on manipulation of anticipated mood enhancement. Subjects also completed the same anticipated mood questionnaire used in Study 1. To assess subjects' awareness of the mood effects of the upcoming video throughout the procedure, half the subjects completed this questionnaire before beginning to observe the worker; the other half completed it after all other measures had been taken.

Debriefing. After subjects completed the final questionnaire, the experimenter returned and conducted a thorough and careful debriefing. Subjects were then thanked for their participation and excused.

Results and Discussion

Perception of the worker's need. Subjects in both experimental conditions perceived the worker to be in considerable need. The overall mean response to an item on the impression questionnaire concerning how uncomfortable the shocks were for the worker, rated on a scale from 1 (*not at all*) to 7 (*extremely*), was 6.40. Means did not differ reliably across experimental condition or point of administration of this questionnaire.

Effectiveness of manipulation of anticipated mood enhancement. The same two manipulation check items used in Study 1 indicated that subjects in the anticipated mood-enhancement condition expected their mood while and immediately after viewing the film to be quite positive, whereas subjects in the no anticipated mood-enhancement condition did not. As in Study 1, these two anticipated mood items were averaged to form an index (Cronbach's $\alpha = .84$). Mean scores on the 1 (*very depressed and sad*) to 9 (*very happy and pleased*) response scale were 4.22 in the no anticipated mood-enhancement condition and 7.15 in the anticipated mood-enhancement condition, $F(1, 34) = 35.55, p < .0005$ (2 subjects failed to complete this measure). Neither the main effect for predominant emotional response nor the interaction were reliable (both F s < 1.0). Means on this index did not differ reliably when the anticipated-mood

questionnaire was administered at the beginning of the procedure rather than the end ($F < 1.0$), nor did they differ reliably by sex ($F < 1.0$).

Index of predominant emotional response. To provide an index of predominant emotional response to the worker's need, we first created separate indexes of self-reported distress and empathy. This was done by averaging responses to eight adjectives found in previous research (see Batson, 1987) to reflect personal distress—*alarmed, grieved, troubled, distressed, upset, disturbed, worried, and perturbed* (Cronbach's $\alpha = .88$)—and six adjectives found to reflect empathy—*sympathetic, soft-hearted, warm, compassionate, tender, and moved* (Cronbach's $\alpha = .80$). Mean score on the response scale ranging from 1 to 7 was 4.65 for the distress index and 4.63 for the empathy index. As had Batson et al. (1983), we then created a single index of predominant emotional response by subtracting each subject's score on the distress index from his or her score on the empathy index.

Means on this index of predominant emotional response did not differ reliably across anticipated-mood condition, point of administration of the emotional response questionnaire, or sex (all F s < 1.0), nor were there any reliable interactions. Therefore, we performed a median split on this index ($Mdn = 0.19$), producing two groups: subjects whose predominant emotional response to watching the worker suffer was personal distress ($n = 20$) and subjects whose predominant emotional response was empathy ($n = 20$). This classification of predominant emotional response was then crossed with the experimental manipulation to produce a 2 (distress vs. empathy) $\times$ 2 (no anticipated mood enhancement vs. anticipated mood enhancement) design.

Effect of anticipated mood enhancement on the empathy-helping relation. The proportion of subjects who offered to help the worker in each cell of this 2 $\times$ 2 design is presented in Table 2. Consistent with the predictions of the empathy-altruism hypothesis, an ANOVA on these proportions (normal approximation based on arcsin transformation) revealed only one reliable effect, the main effect for predominant emotional response, $\chi^2(1, N = 40) = 3.91, p < .05$; the other main effect and the interaction had χ^2 s < 1.0 . As predicted, the proportion of subjects who helped was higher among those reporting a predominance of empathy (.70) than among those reporting a predominance of distress (.40).

Contrary to the predictions of the negative-state relief model, there was no evidence that anticipated mood enhancement reduced the rate of helping by subjects reporting a predominance of empathy. The proportion of helping among these subjects was exactly the same (.70) in the two anticipated-mood conditions. The difference in rate of helping between distress and empathy subjects was a bit less in the anticipated mood-enhancement condition, but not because of the drop in rate of helping

⁴ There was a significant main effect for sex, but no reliable interactions. Female subjects perceived the shocks to be more uncomfortable for Elaine ($M = 6.84$) than male subjects perceived them to be for Charlie ($M = 6.00$), $F(1, 32) = 7.67, p < .01$. There was very little variance on this measure, especially among women; most subjects gave a Level 7 response.

Table 2
Proportion of Subjects Agreeing to Help
Confederate in Each Cell of Study 2

Anticipated mood enhancement	Predominant emotional response	
	Distress	Empathy
No	.33	.70
<i>M</i>	2.67	4.00
<i>n</i>	9	10
Yes	.45	.70
<i>M</i>	2.36	5.00
<i>n</i>	11	10

Note. The mean refers to the mean number of shock trials (from 0 to 8) that subjects in each cell agreed to take for the confederate.

by predominantly empathic subjects predicted by the negative-state relief model. Instead, there was a small, nonsignificant tendency for predominantly distressed subjects to help more in the anticipated mood-enhancement condition (.45) than in the no anticipated mood-enhancement condition (.33). This increase, which was not predicted by either the negative-state relief model or the empathy-altruism hypothesis, is probably best interpreted as being due to chance.

The mean number of shock trials that subjects volunteered to take are presented in parentheses in Table 2. This continuous measure produced a pattern of results similar to the dichotomous measure. As in previous research using this shock paradigm (Batson et al., 1981, 1983, 1986), responses on the continuous measure were not normally distributed; subjects tended either to decline to help ($n = 18$) or to agree to take Elaine (Charlie's) place for all of the remaining trials ($n = 15$, although many of these 15 reserved the right to stop if they found the shocks too uncomfortable). Only 7 subjects said they wished to split the remaining trials with the worker, taking less than all 8 trials. This pattern of responses produced a bimodal distribution and rendered parametric statistical analyses inappropriate. Given this bimodality, the dichotomous measure (no help vs. help) seemed a far more appropriate representation of the data. We did, however, analyze the continuous measure. The only effect that approached statistical significance was the main effect for predominant emotional response, $F(1, 36) = 2.82, p < .11$; the other main effect and the interaction had F s < 1.0 .

Study 3: Anticipated Mood Enhancement and Manipulated Empathy

Study 3 was a conceptual replication of Study 2, using an experimental manipulation of empathy in a 2 (low empathy vs. high empathy) $\times$ 2 (no anticipated mood enhancement vs. anticipated mood enhancement) design. We used essentially the same anticipated mood-enhancement manipulation, but a quite different need situation and helping measure: Subjects learned about the need of a young woman, Katie Banks, by listening to a (bogus) pilot radio newscast and were then given an unexpected chance to help her (Coke et al., 1978). Empathy

was manipulated by means of perspective-taking instructions. Predictions were the same as for Study 2.

Method

Subjects. The subjects were 60 students (20 men, 40 women) in an introductory psychology course at the University of Kansas. Their participation earned them partial credit for a course requirement. Using a randomized block procedure, we assigned 15 subjects (5 men and 10 women) to each of the four cells of the 2×2 design. We excluded 4 additional students from the sample because they expressed suspicion.

Procedure. Subjects were run individually. A written introduction informed them that they would be participating in two brief studies during the hour. One involved evaluating two pilot broadcasts for the university radio station; the other involved effects of media on mood.

Manipulation of anticipated mood enhancement. The media-and-mood study was used to manipulate anticipated mood enhancement, as it had been in Studies 1 and 2. In Study 3, however, subjects in the no anticipated mood-enhancement condition were to view a video from Category 3 ("causes no noticeable change in happiness or sadness"). Category 3 was used instead of Category 4 to minimize chances of this information having any effect—positive or negative—on mood. As in Studies 1 and 2, subjects in the anticipated mood-enhancement condition were to view a video from Category 1 ("causes strong feelings of happiness and pleasure"). Ostensibly to measure feelings before beginning the two studies, subjects next completed a brief questionnaire assessing current and anticipated mood. This questionnaire included the same two 1–9 scales used in Studies 1 and 2 to assess anticipated mood while and immediately following viewing the video. These two items provided a check on the effectiveness of the mood-enhancement manipulation.

The rest of the procedure was much like that used by Coke et al. (1978, Experiment 1), and described in detail by them. Only key elements are described here.

Manipulation of empathy. We manipulated empathy by listening-perspective instructions that subjects read before hearing the broadcast that presented Katie's need. Subjects in the low-empathy condition were instructed to "Try to focus on the technical aspects. Try to assess the effectiveness of the techniques and devices used to make the broadcast have an impact on the listener." Subjects in the high-empathy condition were instructed to "Try to imagine how Katie Banks feels about what has happened and how it has affected her life. Try to feel the full impact of what she has been through and how she feels as a result." The experimenter remained blind to which listening-perspective instructions subjects received. Subjects were left alone to listen to the tape.

Learning of Katie's need. On the tape, a male announcer interviewed Katie, who was a senior at the university. Katie's parents and a sister had recently been killed in an automobile crash. Her parents did not have life insurance, and Katie was desperately struggling to support her surviving younger brother and sister while she finished her last year of college. If she did not finish, she would have to put the children up for adoption.

Empathic reaction to learning of Katie's need. At the conclusion of the tape, subjects completed an emotional response questionnaire that listed 20 adjectives describing different emotional states. For each adjective, subjects indicated how much (1 = not at all, 7 = extremely) they had experienced that emotion while listening to the tape. The list included adjectives to assess feelings both of empathy and of sadness.⁵

⁵ Feelings of personal distress were not considered. Previous research (Batson et al., 1988) had suggested that, in response to the Katie Banks tape, subjects seemed to interpret and respond to distress adjectives more in terms of an other-oriented feeling of distress for Katie than a

This measure provided a check on the effect of the empathy manipulation on subjects' emotional reaction to Katie's need.

Katie's request for help. The experimenter then returned and presented subjects with an envelope containing two letters that the professor in charge of the study had asked be given to participants. The experimenter also placed a videocassette on the table in front of the subject, explaining that this was the cassette he or she would be viewing shortly, the one that "will cause no change in your mood" ("will make you feel extremely happy and pleased"). The cassette, clearly labeled *Category 3—No Change (Category 1—Extremely Happy)*, was ostensibly left so the subject could take it to the viewing room, where it would be shown by an assistant. This procedure provided a reminder about the upcoming video, paralleling the reminders in Studies 1 and 2. The experimenter then left the subject alone to read the letters in the envelope.

The first letter was from the professor. He thanked subjects for participating in the research and explained that it had occurred to him that some participants might want to help Katie, so he had encouraged her to write a letter telling what they could do, if they wished. The second letter was from Katie; she presented subjects with a range of possible ways to help—sitting with her younger brother and sister while she attended her night classes, fixing things around the house, providing transportation, making telephone calls, or stuffing envelopes for a fund-raising project.

Dependent measure: Volunteering to help Katie. Included with the letters was a response form that asked subjects to indicate whether they wished to help Katie, and if so, to check the number of hours they wished to volunteer: 1–2, 3–5, 6–8, or 9–10. Only those who indicated a desire to help were asked to add their name and phone number. The amount of time, if any, that subjects volunteered was the dependent measure of helping. A small envelope, addressed to the professor in charge of the research, was also provided. Regardless of their decision, subjects were asked to seal the response form in this envelope, assuring anonymity. Escape was easy; subjects declining to help would have no further exposure to Katie's need.

Ancillary measures. After placing the response form in the envelope, subjects completed a broadcast reaction questionnaire. In addition to asking how interesting, informative, and worthwhile they felt the broadcast was, this questionnaire included an item concerning Katie's need ("How great is the need of the person who was interviewed?") and two items designed to check the effectiveness of the empathy manipulation ("While listening to this broadcast, to what extent did you concentrate on the technical aspects of the broadcast?" and "To what extent did you concentrate on the feelings of the person being interviewed?").

Debriefing. Finally, subjects were fully and carefully debriefed, thanked for their participation, and excused.

Results and Discussion

Perception of Katie's need. On the reaction questionnaire, subjects indicated the magnitude of Katie's need (1 = *very little*, 9 = *very great*). Subjects in all four experimental conditions perceived her need to be great (cell *M*s ranged from 8.33 to 8.73, overall *M* = 8.47), with no reliable difference among the cells, $F(3, 56) < 1.0$.

Effectiveness of empathy manipulation. On the reaction questionnaire, subjects also indicated the extent to which they concentrated on (a) the technical aspects of the broadcast and (b) the feelings of the person being interviewed (1 = *not at all*,

9 = *very much* for each question). Subjects in the low-empathy condition reported more concentration on the technical aspects ($M = 7.03$) than did subjects in the high-empathy condition ($M = 4.13$), $F(1, 56) = 32.89$, $p < .001$. Subjects in the high-empathy condition reported more concentration on feelings ($M = 8.17$) than did subjects in the low-empathy condition ($M = 6.67$), $F(1, 56) = 14.33$, $p < .001$. For neither measure was there a significant main effect for the mood-enhancement manipulation or a significant interaction.

To assess the effectiveness of the empathy manipulation in inducing empathic feelings for Katie, we turned to subjects' self-reports of empathy on the emotional response questionnaire. We created an empathy index by averaging responses to five adjectives: *sympathetic*, *softhearted*, *compassionate*, *tender*, and *moved* (Cronbach's $\alpha = .90$; we omitted *warm* because this experiment was run in the winter, and many subjects responded to this adjective in terms of body temperature). As had Batson et al. (1988), we found relatively high reports of empathy for Katie even among subjects asked to adopt an objective perspective, possibly reflecting positive self-presentation. However, also as had Batson et al. (1988), we found that the empathy manipulation had a significant effect on self-reported empathy that was not readily attributable to self-presentation. Scores on the 7-point empathy index (1 = *not at all*, 7 = *extremely*) were higher for subjects in the high-empathy condition ($M = 5.76$) than for those in the low-empathy condition ($M = 4.44$), $F(1, 56) = 19.18$, $p < .0005$ ($F < 1.0$ for the mood-enhancement manipulation and for the interaction). We concluded that the empathy manipulation was successful.⁶

Effectiveness of manipulation of anticipated mood enhancement. The same manipulation check used in Experiments 1 and 2 indicated that subjects in the anticipated mood-enhancement condition expected their mood while and immediately after viewing the film to be quite positive, whereas subjects in the no anticipated mood-enhancement condition did not. As in Studies 1 and 2, we averaged these two anticipated mood items to form an index (Cronbach's $\alpha = .89$). Mean scores on the 1 (*very depressed and sad*) to 9 (*very happy and pleased*) response scale were 5.20 in the no anticipated mood-enhancement condition and 7.52 in the anticipated mood-enhancement condition, $F(1, 56) = 108.64$, $p < .001$. Neither the empathy main effect nor the interaction were reliable, both F s < 1.0 .

Effect of anticipated mood enhancement on the empathy-helping relation. Helping responses were coded in two ways. First, the proportion of subjects who volunteered any amount of time served as a dichotomous measure of helping (0 = no help, 1 = help); second, scores on the 5-point scale of number of hours volunteered (0 = 0 hr, 1 = 1–2 hr, 2 = 3–5 hr, 3 = 6–8 hr, and 4 = 9–10 hr) served as a continuous measure. Scores on the continuous measure were badly skewed (26 did not help, 19

⁶ We created a sadness index by averaging responses to two adjectives: *sad* and *low* (Cronbach's $\alpha = .82$). As expected, scores on this sadness index were highly correlated with scores on the empathy index, $r(58) = .77$, $p < .0001$, and, like scores on the empathy index, were higher in the high-empathy condition ($M = 5.33$) than in the low-empathy condition ($M = 3.87$), $F(1, 56) = 16.94$, $p < .005$ ($F < 1.50$ for the mood-enhancement manipulation; $F < 1.0$ for the interaction).

feeling of being personally distressed by her need. A "distress for" response is more akin to empathy than to personal distress.

Table 3
Proportion of Subjects Agreeing to Help Katie
in Each Cell of Study 3

Anticipated mood enhancement	Empathy condition	
	Low	High
No	.40	.80
<i>M</i>	0.67	1.33
Yes	.33	.73
<i>M</i>	0.53	1.33

Note. $n = 15$ (5 men and 10 women) per cell. The means are those for the scaled measure of helping (0 = no help; 1 = 1–2 hours, 2 = 3–5 hours, 3 = 6–8 hours, 4 = 9–10 hours).

volunteered 1–2 hr, 9 volunteered 3–5 hr, 3 volunteered 6–8 hr, and 3 volunteered 9–10 hr). Therefore, we adopted the dichotomous measure as our major index of helping. However, as a check, we also analyzed the scaled measure. There were no reliable sex effects (main effect or interactions) on either the rate or amount of helping, all $F_s(1, 52) < 2.05$.

The proportion of subjects volunteering to help Katie in each cell of the 2 (low vs. high empathy) $\times$ 2 (no anticipated mood enhancement vs. anticipated mood enhancement) design is presented in Table 3. Means on the scaled measure are in parentheses.

Consistent with the predictions of the empathy–altruism hypothesis, an ANOVA on the proportion of subjects helping in each cell (normal approximation based on arcsin transformation) revealed only one reliable effect, the main effect for the empathy manipulation, $\chi^2(1, N = 60) = 10.46, p < .001$; the other main effect and the interaction had $\chi^2_s < 1.0$. As predicted, the proportion of subjects who helped was higher in the high-empathy condition (.77) than in the low-empathy condition (.37). Pairwise comparisons revealed that the predicted difference in rate of helping in the mood-enhancement condition between high- (.73) and low-empathy cells (.33) was statistically reliable ($z = 2.26, p < .03$), paralleling the difference in the no-enhancement condition (.80 vs. .40; $z = 2.31, p < .03$). Contrary to predictions of the negative-state relief model, we found no evidence that anticipated mood enhancement reduced the rate of helping by subjects in the high-empathy condition ($z < 1.0$).

Analysis of the scaled measure of helping produced exactly the same pattern of significant effects, although the pattern was weaker than for the dichotomous measure (presumably due to the skew). For the scaled measure, the empathy main effect was reliable, $F(1, 56) = 6.87, p < .02$; the other main effect and the interaction were not, both $F_s < 1.0$. Pairwise comparisons again revealed a reliable difference in the rate of helping in the mood-enhancement condition between the high- ($M = 1.33$) and low-empathy cells ($M = .53$), $t(56) = 2.02, p < .05$, paralleling the difference in the no-enhancement condition ($M_s = 1.33$ vs. .67), $t(56) = 1.69, p < .10$.

General Discussion

Taken together, the results of Studies 2 and 3 seem very difficult to reconcile with the negative-state relief explanation

of the empathy–helping relation. Our anticipated mood-enhancement manipulation, which in Study 1 proved effective as a means of negative-state relief, did not reduce the helping of individuals reporting a relative predominance of empathy over distress when witnessing a confederate reacting badly to electric shocks (Study 2); nor did it reduce the helping of individuals whose empathic reaction to Katie's need was experimentally manipulated through listening perspective instructions (Study 3). These results were not those predicted by the negative-state relief explanation, which claims that the increased helping of high-empathy subjects will disappear if a less costly means of mood enhancement is provided (Cialdini et al., 1987; Schaller & Cialdini, 1988).

Instead, the results were those predicted by the empathy–altruism hypothesis, which claims that anticipated mood enhancement is not sufficient to reduce the helping of empathically aroused individuals because it does not permit them to reach the altruistic goal of relieving the victim's distress. Obtaining the same pattern of effects for both the dichotomous and the scaled helping measure in two different need situations in two different studies—one in which empathy was measured and one in which empathy was manipulated—gives us increased confidence in the validity of the results. Moreover, both need situations are ones in which a guilt or shame explanation of the empathy–helping relation has failed to find support (see Batson et al., 1986, 1988; Fultz et al., 1986).

It might be argued, however, that the negative-state relief explanation predicted a difference in helping between the mood-enhancement conditions for high-empathy subjects, whereas the empathy–altruism hypothesis predicted no difference. Given that our rather small sample sizes and the resulting low power of our statistical analyses decreased the likelihood of rejecting a null hypothesis, did not this asymmetry of predictions stack the deck against the negative-state relief explanation and in favor of the empathy–altruism hypothesis?

This argument overlooks two important points. First, the lack of a statistically significant difference in helping for high-empathy subjects was not simply due to low statistical power. There were four relevant measures: dichotomous and scaled helping in Studies 2 and 3. On only one of these four measures—dichotomous helping in Study 3—did high-empathy helping even pattern in the direction predicted by the negative-state relief explanation. Before the slight difference observed on that measure could reach statistical significance ($\alpha = .05$, one-tailed), a sample of 223 subjects per cell would be required.

Second, although the empathy–altruism hypothesis did not predict a difference in helping between the mood-enhancement conditions for high-empathy subjects, it did predict a difference between low- and high-empathy subjects within the mood-enhancement condition, where the negative-state relief explanation predicted no difference. In Study 2, this difference was present but not statistically reliable (.45 vs. .70); in Study 3, it was present and reliable (.33 vs. .73; $z = 2.26, p < .03$). Using Studies 2 and 3 as independent tests of the same hypothesis, this difference received clear statistical support, $\chi^2(4) = 10.25, p < .04$ (Winer, 1971, p. 49).

Overall, then, there was not an asymmetry between the two hypotheses in whether they did or did not predict differences;

the asymmetry was in support for the predicted differences. The difference predicted by the empathy-altruism hypothesis was found; the difference predicted by the negative-state relief explanation was not.

Speculations About Apparent Support for the Negative-State Relief Explanation in Previous Research

In light of our results, how are we to account for the apparent support of the negative-state relief explanation reported by Cialdini et al. (1987) and Schaller and Cialdini (1988)? Perhaps the most honest and succinct response is that we cannot; we do not know with certainty why they obtained the results they did. But let us offer a few speculations.

Our results, as well as those reported by Schroeder et al. (1988) and by Schaller and Cialdini (1988) for their dichotomous measure of helping, incline us to accept the distraction explanation offered by Cialdini et al. (1987) for the results of their two experiments. In their Experiment 1, we suspect that other psychological processes—such as reactance and experimental demand—may have been operating as well.

Schaller and Cialdini (1988) sought to avoid problems of distraction by using a procedure much like the one we used. Interestingly, results for their dichotomous measure of helping were much like ours, with the exception of the unexpected increase in helping in their low-empathy-mood-enhancement cell. Thus, results for their dichotomous measure seem to further increase confidence in the generality of our results. However, results for their scaled measure were not like ours; that measure showed a decrease in the amount of helping by high-empathy subjects who anticipated mood enhancement compared with high-empathy subjects who did not. Why?

It seems quite possible that results on Schaller and Cialdini's (1988) scaled measure were due to chance. Responses on that measure were badly skewed (43 of 90 subjects did not help at all), and the conventional (.05) level of statistical significance was achieved only after introduction of the post hoc time-of-semester variable, resulting in very small and unequal cell samples. It is also possible, however, as Schaller and Cialdini assumed, that their results were due to motivation for negative-state relief among their high-empathy subjects. If this is true, then the results of our Studies 2 and 3, which used much the same distraction-free anticipated mood-enhancement manipulation, provide two failures to replicate this finding, challenging its generality and, therefore, its theoretical significance.

Challenge Posed by Our Results

It is important to be clear as to precisely what theoretical point our results challenge. Our results do not challenge the general claim of Cialdini and his colleagues that one source of motivation to help is an egoistic desire for negative-state relief; quite the opposite. Consistent with the results of various studies designed to test the negative-state relief model (Baumann et al., 1981; Cialdini et al., 1973; Cialdini & Kenrick, 1976; Manucia et al., 1984), we found in Study 1 that subjects induced to feel sad helped more than those not so induced, except when saddened subjects could anticipate mood enhancement without

helping. These results supported negative-state relief predictions in the absence of empathy.

Our results do not even challenge the claim that negative-state relief may at times be a motive for helping among subjects feeling empathy for a person in need. The Schaller and Cialdini (1988) results for scaled helping are consistent with this possibility, and our results, although suggesting limits on the generality of such motivation, certainly do not rule out its existence.

However, existence of negative-state relief as a motive among high-empathy individuals, although interesting in its own right, is not the point of disagreement between the negative-state relief and empathy-altruism explanations of the empathy-helping relation. The theoretical significance of the negative-state relief explanation proposed by Cialdini et al. (1987) lies in their claim that the evidence taken as support for the empathy-altruism hypothesis is actually the product of an entirely egoistic desire for personal mood management.

It is this claim that our results challenge. If our anticipated mood-enhancement manipulation provided a source of negative-state relief—and both the results of Study 1 and subjects' ratings of their anticipated mood in Studies 2 and 3 indicate that it did—then it seems clear that something other than negative-state relief was motivating the helping of the high-empathy subjects in our Studies 2 and 3. We found the same empathy-helping relation under easy escape conditions as had previous researchers. More important, we found this relation even when anticipated mood enhancement provided the opportunity for negative-state relief without helping.

Apparently, the empathy-helping relation is not simply the product of an egoistic desire for negative-state relief. There is more to it than that. Whether this "more" is the product of an altruistic desire to relieve the victim's distress, as the empathy-altruism hypothesis claims, remains to be seen. Certainly, our results are entirely consistent with that hypothesis. Moreover, plausible alternative explanations for the growing support for the empathy-altruism hypothesis are increasingly hard to find.

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