

# Mood, Self-Awareness, and Willingness to Help

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Two experiments using female subjects investigated the effects of mood and self-focused attention on the willingness to help another. Experiment 1 induced a positive, negative, or neutral mood and also two kinds of high self-awareness (by either the mirror procedure or requiring essays) as well as a low self-awareness condition. Experiment 2 used a different technique to induce the three moods and also established either high or low attention to the self with the mirror procedure. In both studies, self-awareness did not interact significantly with mood in affecting the subjects' reported feelings, although there were indications in Experiment 2 of an intensification of the negative mood under self-focus. Furthermore, in both studies self-awareness operated together with the positive mood to increase the subjects' effort in behalf of the supplicant, whereas the joint operation of self-focus and negative mood was much weaker. Also in the second experiment, self-awareness raised the frequency of positive ideas about the self in the happy subjects and increased the frequency of negative self-ideas in the negative mood group. In a multiple regression analysis, these frequencies of positive and negative ideas about the self, but not a mood index, successfully predicted the amount of work the subjects did for the supplicant.

People's willingness to help others varies greatly from one situation to another. Depending on the conditions confronting them, they can be quick to aid a person in distress on some occasions but be reluctant to provide assistance at other times. This research is concerned with two of the conditions influencing helpfulness: mood and self-awareness. Although there is now considerable evidence that both of these factors can affect the motivation to help, it is not entirely clear whether these determinants increase or dampen this motivation.

Studies of the impact of mood on benevolence have obtained somewhat mixed results. Their findings are relatively straightforward with regard to positive feelings but are inconsistent for negative moods. In the former category, research has repeatedly demonstrated that a pleasant experience frequently leads to a heightened willingness to aid others. Whether the positive event is success on an assigned task (Berkowitz & Connor, 1966; Isen, 1970), a stroke of good fortune (Isen & Levin, 1972), reading statements having a pleasant meaning (Aderman, 1972), remembrances of happy incidents (Rosenhan, Underwood, & Moore, 1974), good news (Veitch, DeWood, & Bosko, 1977), soothing music (Fried & Berkowitz, 1979), or even sunshine (Cunningham, 1979), the resulting happy mood often increases the inclination to help people in difficulty. But on the other side of the coin, negative feelings also sometimes promote helpfulness (Cialdini, Darby, & Vincent, 1973; Kidd & Marshall, 1982), especially if the effort is not particularly costly and the cause is worthy (Weyant, 1978), and at other times have the opposite effect (Aderman, 1972; Isen, Horn, & Rosenhan, 1973).

These seemingly contradictory results suggest that moods in-

fluence benevolence in a variety of ways and that the processes operating under pleasant feelings may well differ from those at work when people feel bad. The research literature offers a number of possible interpretations of the findings.

First, consider how a positive mood might affect helpfulness. As Manucia, Baumann, and Cialdini (1984) have noted, a strictly instrumental conception would suggest that the aid given under a happy mood is motivated largely by the desire to maintain the pleasant feelings. Some experimental evidence is consistent with such a thesis. For example, it has been found that a good mood does not induce compliance to requests to hurt others (see Isen, 1984, p. 188), as if the happy people are reluctant to do things that might lessen their pleasant feelings. However, other research findings are not clearly in accord with the instrumental view, and Manucia et al. (1984) suggested that the desire for mood maintenance is a relatively unimportant determinant of the helpfulness displayed by those who are feeling good.

Conceivably much more important are the happy persons' attitudes toward giving assistance when the aid is required. Positive moods might enhance the willingness to engage in behavior having a socially positive meaning. According to Batson and his colleagues (Batson, Coke, Chard, Smith, & Taliaferro, 1979), pleasant feelings increase people's general activity level. However, Cunningham, Steinberg, and Grev (1980) pointed out that the effect of a good mood on helpfulness can be much more specific than this. They showed that positive feelings are especially apt to raise the likelihood of behaviors associated with rewards. Those who are feeling good might be ready to be active, but they are particularly willing to do those things having pleasant associations in their mind. These associations can be promoted by mood-generated ideas. Isen (Isen, 1984; Isen, Shalke, Clark, & Karp, 1978) has demonstrated that pleasant moods tend to activate positive thoughts. As a consequence of such an activation process, persons feeling happy at the time

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might interpret calls for assistance in a relatively favorable manner or might view positively those asking for help. In thinking positively about the world around them, they look at the ambiguous people and behaviors in this world in a generally positive light. As I will propose later, they may even regard themselves more favorably than they otherwise are inclined to do, and this positive self-conception could facilitate socially positive behavior. Then too, the happy persons' prosocial ideals could also be relatively accessible while they are in this mood so that they quickly recall their attitudes and moral standards prescribing aid for those in need.

Negative feelings apparently produce an even more complex set of reactions than does a positive mood. On one side, as mentioned earlier, the negative affect sometimes leads to relatively great helpfulness, as if the unhappy persons are seeking to lessen their unpleasant mood by acting in a socially desirable manner (Cialdini et al., 1973; Kidd & Marshall, 1982). This instrumentally motivated aid is most apt to be given when (a) the behavior is relatively easy to carry out and seems likely to be effective (Weyant, 1978), (b) there is reason to think the bad feelings can change (Manucia et al., 1984), and (c) the negative mood is not especially strong (see Manucia et al., 1984, p. 357). But on the other hand, and operating in the opposite direction, relatively intense negative affect tends to evoke anger and aggressive inclinations as well as a desire to escape from the unpleasant situation (Berkowitz, 1983). People who feel bad might therefore look with disfavor on requests for aid or on those who require assistance, particularly if the needed help is physically or psychologically costly for them and it is not immediately obvious that the assistance will improve their mood. In being somewhat hostile toward the world around them, they conceivably might also tend to have a relatively negative opinion of themselves as well, and this unfavorable self-conception might also dampen their motivation to help others. More will be said about this later.

Research into the effects of the self on the willingness to help has also yielded a mixture of apparently contradictory results. Heightened self-awareness has led to increased helpfulness in some investigations but apparently has reduced the inclination to be helpful in other studies. At first glance, this inconsistency seems troublesome for the self-awareness theory initiated by Duval, Wicklund, and their associates (Carver & Scheier, 1981; Duval & Wicklund, 1972; Wicklund, 1975). According to this line of thought, increased attention to the self should increase motivation to aid others for at least two reasons. One, the self-focused attention presumably leads to a greater awareness of the discrepancy between one's actions and relevant salient ideals. People who are highly conscious of themselves are theoretically disturbed by the difference between what they are doing or planning to do at that time, on one hand, and what they believe they ought to do, on the other. Thus, if these persons think they should help those in need and are conscious of this ideal at the time, their self-awareness should motivate them to adhere to this salient ideal. And two, according to Duval, Duval, and Neely (1979), self-awareness promotes the belief that one has a relatively great personal responsibility for others. But whatever the specific mechanisms at work here, Gibbons and Wicklund (1982) have demonstrated that self-focused attention tends to

increase helpfulness when someone is clearly and legitimately in need of assistance.

Although several studies (e.g., Karylowski, 1979; also see Gibbons & Wicklund, 1982) appear to contradict this analysis, their findings can be reconciled with the self-awareness formulation. The self-focused attention established by the Duval and Wicklund procedures is not necessarily accompanied by worry or anxiety. The subjects exposed to these procedures were highly aware of themselves but were not particularly concerned about their worth or their personal problems. Under this condition the self-focused attention tends to increase helpfulness. By contrast, in the experiments in which heightened self-consciousness led to a decreased willingness to aid others, this self-awareness stemmed from a preoccupation with either questions of one's merit or one's personal problems. Berkowitz's (1970) discussion of self-concern is pertinent to the former matter, self-doubts. He noted that people's doubts or even uncertainty about their self-worth might keep their helpfulness ideals from coming to mind or lessen their empathy with those in distress. Furthermore, according to results reported by Aderman and Berkowitz (1983), this self-concern could also intensify reactance so that the felt pressure to aid those in need is more strongly resented. In line with all this, Kidd and Marshall (1982) showed that a high level of self-concern, induced by negative thoughts about the self, reduced compliance with a request for assistance.

Any consideration of the separate effects of mood and self-awareness inevitably raises the question of how these factors might combine to influence the motivation to help others. There are several reasons for thinking that attention to the self could interact with the pleasantness of one's mood. For one, according to Scheier and Carver (1977), increased self-awareness strengthens existing feelings. Those persons who are already in a good mood might therefore feel even better when they become highly aware of themselves, and consequently could be even more willing to render assistance.

But then, too, self-directed attention might work together with mood to influence helpfulness without affecting the intensity of the feelings. First, consider how this could happen in the case of a positive mood. As one possibility, if a happy mood increases the likelihood of having prosocial thoughts in response to a request for assistance, a heightened self-awareness might lead to an increased adherence to the social responsibility ideals that are activated by the pleasant feelings. An alternative is that self-directed attention evokes thoughts about the self that are colored in a favorable direction by the positive mood. Then, if people seek to adhere to their conception of themselves, as self-perception theory maintains (Bem, 1972), this relatively favorable self-schema could promote prosocial conduct (see Kraut, 1973).

Where practically every relevant theory would expect self-attention to lead to greater helpfulness under a positive mood, there is somewhat less agreement as to what should happen in the case of people experiencing unpleasant feelings. The instrumental interpretation of negative mood-enhanced helping advanced by Cialdini and his associates (e.g., Cialdini et al., 1973) suggests that a negative mood would produce greater benevolence than would a neutral mood, but it also holds that self-focus will lower the negative mood-induced motivation to help

by keeping people from recognizing how their aid could improve their feelings. Berkowitz's research findings over the years lead to different expectations for the effect of unpleasant feelings but also suggest that self-directed attention in this negative mood state will dampen helpfulness. His results generally suggest that negative affect tends to reduce the willingness to render aid because the unpleasant feelings presumably give rise to negative ideas and even anger and aggressive inclinations, among other reactions (Berkowitz, 1983). A related possibility, previously proposed, is that the self-focus tends to activate ideas about the self and that these self-thoughts are steered in a negative direction by the negative mood, essentially creating the self-concern discussed earlier (Berkowitz, 1970). Basically, the unhappy mood transforms high self-awareness into a negative self-concern. This self-concern, in turn, could lessen the motivation to help, as Kidd and Marshall (1982) have reported.

This article reports two experiments investigating the impact of mood and self-directed attention on people's willingness to aid someone. In both studies the subjects were asked for help, and the results probably tell little about the conditions that can influence voluntarily initiated helpfulness. My focus, rather, is on the amount of effort they expended in compliance with this request. How willing were they to work hard in another's behalf? On the basis of the earlier research cited and the reasoning just spelled out, it is reasonable to have expected the participants' feelings to interact with their self-awareness in influencing how much aid they gave. More specifically, the subjects should have been most helpful when their attention was directed toward themselves and they were in a good mood, and least inclined to assist the supplicant when they were also highly conscious of themselves but feeling bad. Furthermore, the analysis preferred here holds that the interaction of mood state and self-focus should have affected the favorableness or unfavorableness of the participants' self-conceptions. The positive or negative nature of the subjects' view of themselves might well have had a stronger impact than their mood alone on their willingness to provide the requested aid.

## Experiment 1

### Method

#### Research Design

The first experiment used a  $3 \times 3$  factorial design based on three variations in mood (positive, negative, and neutral) and three types of self-awareness. In the latter case two procedures were used to establish a heightened self-focused attention, and there was also one condition of low self-awareness.

#### Subjects

The subjects in the first study were 108 undergraduate women recruited from introductory psychology classes who participated in the experiment to earn extra credits counting toward their course grade. They were distributed evenly among the nine conditions so that there were 12 women in each group.

#### Procedure

Three undergraduates, two men and a woman, served as the experimenters, with each one required to run at least 4 subjects in each condi-

tion<sup>1</sup> as their lab project in a senior course in experimental social psychology. Each experimenter met the scheduled participant in the laboratory waiting room, escorted her to the laboratory suite, and then explained the study's ostensible purpose: an investigation "of the use of imagination by university students." In order to stimulate the subject's thinking, the participant was told, she would soon be given something to do and then would be asked to write down her thoughts. The woman was assured that the study was in no way concerned with her as an individual and had to do only with the imagination of university students as a group.

*Experimental manipulations.* In all cases a large mirror (approximately  $9 \text{ m} \times 1.2 \text{ m}$ ) was situated on the table in front of the woman, supposedly because it was being used by another researcher in another study and had to be kept where it was. For one third of the subjects the reflecting surface faced the participant (*mirror awareness group*), whereas for all of the other women the nonreflecting back of the mirror was exposed.

Orthogonal to the self-awareness manipulations, the mood variations were carried out with the Velten (1967) mood induction procedure also used by Aderman (1972) and Scheier and Carver (1977). Each participant was given one of the Velten sets of mood statements and was told to read each of the 50 cards in the set, allowing the idea in each statement to act on her without resistance. In the *positive mood* condition these statements progressed from relatively neutral ideas (e.g., "Today is no better nor worse than any other day") to a strong expression of elation (e.g., "God, I feel great!"). For the *negative mood* treatment the statements advanced from relative neutrality to an intense expression of depression (e.g., "I want to go to sleep and never wake up"). By contrast, the 50 statements in the *neutral mood* condition were persistently bland and innocuous (e.g., "West Samoa gained its independence in 1965"). The experimenter left the room while the subject went through the 50 cards.

Several minutes later the experimenter returned to establish the self-awareness variations for the two thirds of the subjects not in the mirror-awareness group. He or she asked each participant to write a brief paragraph on a specified topic. All of the people in the mirror-awareness condition as well as half of the remaining participants were told to describe their city's geographical location. Those not seeing their reflection and given this instruction comprise the *low awareness* group. The remaining cases were asked to write an essay about themselves, with the back of the mirror facing them (*write awareness* condition).

*Dependent measures.* Five min after the subject started writing, the experimenter reentered the room, picked up the woman's essay, and administered a brief mood questionnaire. In completing this form the participant described her feelings on a series of 15-step adjective rating scales. Four of the adjectives dealt with positive feelings (forgiving, refreshed, kindly, and affectionate), and four other terms indicated negative moods (sluggish, blue, sad, and tired). None of the mood-inducing statements in the positive condition referred to the kinds of ideas assessed by the adjectival scales, and any use by the subjects of these particular words to describe their feelings was thus not explicitly suggested to them by the Velten statements.

When the subject completed the form, the experimenter came back, thanked her for serving in the study, gave her the experimental credits, and said the experiment was over. Then the experimenter made the standard request for assistance: She or he asked the woman if she could do

<sup>1</sup> The undergraduate experimenters were Barbara Lipsutz, Harold Smith, and Martin Wall. Another researcher had also been used in this investigation, but her 36 subjects were not included because a preliminary inspection of the data indicated that she had not successfully manipulated the participants' mood. She evidently was so friendly to all of her subjects that her pleasant manner had a greater impact on them than did the Velten statements.

her or him a favor. The experimenter supposedly was "in the middle of another study" for a professor and had fallen behind in the schedule, as the professor had assigned a good deal of work. The experimenter said she or he needed "some help to catch up" with what the professor wanted. Could the subject help out by summing the scores on a batch of data sheets the experimenter had? Only 14 of the 108 participants resisted this plea for aid, indicating that most of the women were at least somewhat willing to aid the supplicant. However, as the results presented later demonstrate, they were not all equally motivated to work hard for the supplicant, and this effort is our primary concern. (Of these refusals, 57% were in the negative mood condition; 21% were in each of the other two mood groups.) Those who agreed to the request were given a stack of papers, with each sheet containing columns of numbers, were shown where to write their sums on a master data page, and were informed they could leave whenever they wished. However, the experimenter concluded, "I can use all the help with these pages that you can give me." At this point the experimenter departed, leaving the subject alone in the room. Five min later the experimenter returned, terminated the session, and explained the purposes and procedures in the study. The measure of the subject's willingness to be helpful was the number of pages she scored for the experimenter.<sup>2</sup> The women who resisted the appeal were given a score of 0.

## Results

### Mood Results

Two mood indices were established: an index of the sum of the ratings on the positive adjectives minus the sum on the negative items, and the sum on the positive adjectives alone.

For both measures the analyses of the mood data yielded only a significant main effect for the mood variation and no other significant terms:  $F(2, 99) = 14.02, p < .001$ , and  $F(2, 99) = 2.62, p = .05$ , respectively. Furthermore, on both measures when the self-awareness levels were combined, only the positive mood condition differed from the other groups, and there was no difference between the negative mood and neutral mood conditions. All in all, then, the mood manipulation had established relatively favorable feelings in the positive mood condition, but had not clearly succeeded in creating an unpleasant mood in the negative group. The absence of a significant interaction between the mood and self-awareness treatments is inconsistent with the results reported by Scheier and Carver (1977), who found that the mirror mood induction statements on both positive and negative moods.<sup>3</sup>

### Compliance With Help Request

The analysis of variance (ANOVA) of the help measure, the number of pages scored for the experimenter, showed that all three terms were significant: the awareness variation,  $F(2, 99) = 8.81, p < .01$ ; the mood treatment,  $F(2, 99) = 7.09, p < .01$ ; and the interaction of these variables,  $F(4, 99) = 2.78, p = .05$ . The mean amount of work done for the experimenter in each condition is reported in Table 1.

The main effect for the mood variation demonstrates that the women experiencing pleasant feelings expended reliably greater effort for the experimenter than did their counterparts in the neutral and negative mood groups. Furthermore, both groups of subjects who were induced to attend to themselves gave the

Table 1  
*Experiment 1: Mean Amount of Help Given the Experimenter in Response to Aid Request*

Self-awareness	Mood condition			
	Positive	Neutral	Negative	Combined
Write	11.02 <sub>d</sub>	8.25 <sub>bed</sub>	4.42 <sub>a</sub>	7.89 <sub>z</sub>
Mirror	10.75 <sub>cd</sub>	7.17 <sub>ab</sub>	7.67 <sub>abc</sub>	8.53 <sub>z</sub>
Low	5.17 <sub>ab</sub>	4.92 <sub>ab</sub>	5.08 <sub>ab</sub>	5.06 <sub>y</sub>
Combined	8.97 <sub>x</sub>	6.78 <sub>w</sub>	5.72 <sub>w</sub>	

*Note.* Cells having a common subscript are not significantly different at the .05 level of confidence by a Duncan multiple-range test. Separate tests were conducted for the means involved in the main effects and the interaction.

experimenter more help, by a Duncan multiple-range test, than did the low-awareness participants. However, these main effects have to be qualified by the significant interaction between the mood and self-attention variations.

Note first of all the scores in the low-self-awareness condition. The mood manipulation did not reliably affect the amount of work the subjects did for the experimenter when their attention was not especially focused on themselves. In this situation the participants evidently had to be directing their attention to themselves for their mood to influence their effort. But this self-awareness seemed to interact mainly with the pleasant feelings. From the postanalysis of variance group comparisons summarized in the table, it was only under the positive mood induction that the self-directed attention tended to increase the subjects' effort in behalf of the experimenter. This effect is revealed most clearly in the mirror self-awareness condition, where the happy participants gave significantly more help than their counterparts experiencing either the neutral or negative moods. Under write self-awareness, although the trend is somewhat similar, only the positive and negative mood groups differed reliably by

<sup>2</sup> This obviously crude measure was adopted instead of more sensitive scores based on smaller units because I suspected that the finer units would be more susceptible to random errors. Because of this suspicion, the columns of numbers were not arranged in the same way as in Experiment 2. In any event, it does not appear that the use of smaller units would have substantially changed the conclusions, especially in the mirror self-aware and low-self-awareness conditions.

<sup>3</sup> An examination of the condition means on the difference-score mood measure reveals some very tentative support for the Scheier and Carver thesis. On this measure alone, but not on the positive-adjectives index, both high-awareness groups given the positive mood treatment reported being reliably happier, by a Duncan multiple-range test ( $p < .05$ ), than their self-aware counterparts in the neutral and negative mood conditions. This positive mood accentuation was somewhat greater under mirror self-awareness than under write self-awareness, but neither high-self-awareness group was significantly different from the positive mood-low-self-awareness subjects. Moreover, there was not even a hint of negative mood accentuation in the negative mood subjects under self-focused attention. Elimination of the write self-awareness condition, to be closer to the Scheier and Carver experiment, would not have changed the conclusion of no significant interaction on the mood measures.

a Duncan test. There is little good evidence in these data that the induction of unpleasant feelings had influenced the subjects' work for the experimenter, although there are indications of a help-lessening effect in the write self-awareness condition.

## Experiment 2

The helping results of the first study were generally consistent with expectations in the case of the people experiencing pleasant feelings, but it was surprising that self-awareness did not interact with the negative mood to any substantial extent. This failure to see a reduced helpfulness in the negative mood participants whose attention was directed to themselves could have been due to the previously reported weak induction of unpleasant feelings, and the second experiment therefore used a new mood induction procedure in an attempt to create a stronger negative affect. This study also sought to examine further how the subjects' mood had interacted with their self-awareness. There was no evidence that the self-focused attention had strengthened the women's feelings, but as proposed earlier, their self-awareness and mood might have operated together without such a feeling intensification. One possibility is that the participants' mood and self-focus had affected the nature of their thoughts about themselves. A positive mood and self-directed attention might have activated positive, helpfulness-facilitating ideas about themselves, whereas negative feelings together with self-awareness could have led to a negative self-concern that impeded willingness to work for others.

### Method

#### Research Design

The second experiment used a  $2 \times 3$  factorial design consisting of two self-awareness levels (high or low) and three mood states (positive, neutral, or negative).

#### Subjects

As in the initial study, the participants were university women recruited from introductory psychology classes who volunteered in order to earn extra credit. Ten women served in each of the six conditions.

#### Procedure

The experiment followed the same general procedure as that of the first investigation. The one experimenter, a female undergraduate,<sup>4</sup> met each participant in the waiting room at the scheduled time, escorted her to the laboratory, and, as in the initial experiment, informed the woman that her employer, the professor for whom she was working, was collecting normative data about the imagination of college students.

The experimenter provided the subject with an envelope containing the written instructions she was to follow in carrying out the imagination task and left the room, saying she would return in 15 min. These instructions were used to establish the desired mood state. All of the subjects were asked to write an essay. One third of the women had to describe a recent incident that had made them very happy (positive mood group); they were to relate the event and describe their feelings at the time. Another third of the participants were asked to tell about an incident that had made them very sad (negative mood condition), again describing how they had felt on that occasion. The remaining people,

those in the neutral mood group, had to write about the city of Des Moines, Iowa.

The mirror used in Experiment 1 was again used for the self-attention manipulation. This mirror was on the subject's table as before, supposedly because it was being used in another study. Half of the women looked directly at their reflected image as they wrote (high-self-awareness group), whereas the others saw only the nonreflecting back of the mirror (low-self-awareness group).

At the end of the 15-min period the experimenter returned, collected the essay, and administered the mood questionnaire. She then made the standard help request. Much as in the first experiment, she said she had fallen behind in her work on a supposed other study "for another professor" and required aid to catch up. Could the woman assist her by summing the scores on a batch of data sheets? Only 3 of the participants refused, and interestingly, all were in the negative mood condition. Slightly modifying the index used previously, the help measure in this study was the number of data columns scored for the experimenter (rather than the number of pages scored), with a refusal counted as a 0.

A new mood-rating instrument was used in the interest of obtaining greater sensitivity. This form listed 66 adjectives referring to different kinds of feelings. The subject was asked to check all of the words that applied to her present mood and was also to indicate which words were contrary to her feelings. Twenty-four of these adjectives clearly referred to positive moods (e.g., affectionate, cheerful, happy, peaceful) and 34 were obviously negative in nature (e.g., bitter, dejected, jealous, shaky).<sup>5</sup> Two mood scores were obtained for each participant. One had to do with positive feelings and was based on the number of positive adjectives accepted as fitting her mood minus the number of these positive adjectives rejected as not applying. The other pertained to a negative mood and was based on the number of negative adjectives ascribed to the self minus the number of these adjectives rejected.

### Results

#### Mood Effects

ANOVAS of the mood scores yielded only main effects for the mood manipulation, but this time the negative condition was much more sharply differentiated from the neutral group. For the measure based on the positive adjectives, the mood main effect was highly significant,  $F(2, 54) = 13.77, p = .001$ , with the condition means being 10.9, 6.05, and  $-4.60$  for the positive, neutral, and negative conditions, respectively. The index based on the negative adjectives yielded exactly the same pattern,  $F(1, 54) = 7.34, p = .01$ . With the items scored in such a way that a high score indicates a positive mood, the means are 8.45, 6.55, and  $-5.30$  for the positive, neutral, and negative groups. When Duncan multiple-range tests were performed on each of these measures, the negative-condition mean was significantly different from each of the other means ( $p < .05$ ) for both sets of scores, and the positive condition did not differ reliably from the neutral condition.

With this more successful induction of a negative mood (than in the first experiment), there is also some suggestive evidence,

<sup>4</sup> Leigh Miller ably served as the experimenter in this investigation.

<sup>5</sup> The classification of the adjectives as either positive or negative was based on an unpublished study with over 100 student judges who were asked to rate each adjective in terms of how pleasant or unpleasant it was. Eight adjectives in the list were not counted because the judges' ratings indicated that these words were relatively ambiguous in meaning.

Table 2  
 Experiment 2: Mean Number of Ideas and Types of Ideas Expressed in Each Condition

Ideas	Positive mood		Neutral mood		Negative mood	
	High SA	Low SA	High SA	Low SA	High SA	Low SA
Total	24.6 <sub>a</sub>	20.5 <sub>ab</sub>	8.8 <sub>c</sub>	5.8 <sub>c</sub>	16.4 <sub>b</sub>	25.4 <sub>a</sub>
% positive self-references	55.7 <sub>a</sub>	37.4 <sub>b</sub>	—	—	8.1 <sub>c</sub>	10.0 <sub>c</sub>
% positive non-self-references	21.1 <sub>ab</sub>	32.1 <sub>a</sub>	—	—	4.5 <sub>b</sub>	8.1 <sub>b</sub>
% negative self-references	5.3 <sub>c</sub>	2.1 <sub>c</sub>	—	—	61.2 <sub>a</sub>	43.6 <sub>b</sub>
% negative non-self-references	3.7 <sub>b</sub>	4.8 <sub>b</sub>	—	—	16.7 <sub>a</sub>	17.1 <sub>a</sub>

Note. SA = self-awareness. Separate analyses of variance and separate Duncan multiple-range tests were conducted for each measure reported in the table. Cells having a common subscript are not significantly different at the .05 level of confidence. Dashes indicate analyses not carried out because of the small number of ideas in the neutral mood condition.

consistent with the Scheier and Carver (1977) thesis, that self-focus acted together with the mood variation in affecting negative feelings. Although the mood state–self-awareness interaction was far from significant on both mood measures, a comparison of the six group means on each of the two indices, by a Duncan multiple-range test, showed that the people experiencing unpleasant feelings under high self-awareness reported reliably less happiness ( $p < .05$ ) on both measures than did the subjects in the positive and neutral mood conditions. The participants made to be unhappy in the no-mirror treatment did not differ from any of the other conditions. However, because the two groups of unhappy subjects did not differ significantly from each other, we should regard the apparent accentuation of a negative mood under self-directed attention as only suggestive. Moreover, there were no strong indications that self-focus had intensified the positive mood, perhaps because the pleasant mood induction was relatively weak in this experiment.

### Essay Ideas

Because the focus of the study was the nature of the subjects' thoughts about themselves, the mood-inducing essays were content analyzed to determine the incidence of self-references in them. An independent judge, who was unaware of the nature of the experiment and the guiding hypotheses, first read each essay and marked off the separate ideas (defined as complete subject–predicate units) in each passage. As the neutral condition produced a comparatively small number of ideas, as seen in the top row of Table 2, the subsequent analyses were carried out only with the data from the positive and negative mood groups. The judge then classified each idea as to whether it indicated either a pleasant or unpleasant feeling or was neutral in nature and whether it was self-referential. No statement was coded as self-referential unless it explicitly included such pronouns as *I* or *me*. Table 2 shows the mean number of ideas advanced in each condition and the proportion of each subject's ideas that were positive (i.e., happy) or negative (i.e., sad) and self-referential or not.

The number-of-ideas measure led to two significant effects: for the mood variation,  $F(2, 54) = 23.49, p = .001$ , and for the interaction of mood and self-awareness,  $F(2, 54) = 4.43, p = .05$ . As the table indicates, the women expressed significantly more ideas in the positive and negative mood conditions than

when they were asked to write about Des Moines, Iowa. More than this, however, the table also shows that the subjects generally wrote the most when (a) they were feeling good and their attention was focused on themselves or (b) they were in a bad mood and were not especially self-aware.

The remaining data summarized in the table demonstrate that the mood induction interacted with self-awareness to influence the subjects' ideas about themselves. When the subjects were asked to write about a happy incident, approximately 73% of their ideas were positive in nature, whereas the instructions to write about an unpleasant event led to approximately 69% of the ideas being negatively toned. Of greater interest, the table also shows that the positive mood–high-self-awareness condition had the greatest proportion of positive self-references (significantly more than in the other three conditions), whereas the negative mood–high-self-awareness group had the greatest percentage of negatively toned self-references (and again, reliably greater than the other conditions). Finally, it is also apparent that any differences between the high- and low-self-attention groups in any of the mood conditions occurred only for the self-referential ideas and not for the percentage of non-self-references. In sum, these data demonstrate that the mirror's presence had evoked proportionally more ideas about the self and that the nature of these ideas was influenced by the subjects' feelings.

### Compliance With Help Request

The ANOVA of the helping scores led to results similar to the findings obtained in Experiment 1. As in the earlier study, each term was significant: The women made to be highly aware of themselves did reliably more work for the experimenter than did their counterparts whose attention was less focused on themselves,  $F(1, 54) = 9.21, p = .01$ . Furthermore, those who were in a good mood expended significantly more effort than did the people in the neutral condition, whereas the participants who had been induced to have unpleasant feelings helped the experimenter significantly less than did the neutral-mood subjects,  $F(2, 54) = 30.16, p = .001$ . However, as in the previous investigation, a significant interaction qualifies these differences,  $F(2, 54) = 3.72, p = .05$ . Table 3 shows the mean helpfulness score in each of the six conditions and the outcome of the post-ANOVA comparisons.

As readily apparent in the table, this interaction is an accentuation of the effect of the positive mood induction on the subjects' effort when their attention was focused on themselves. The people who were highly conscious of themselves and exposed to the positive mood treatment expended reliably greater effort for the supplicant than did any of the other groups ( $p < .001$  by one-tailed  $t$  test in all cases). Furthermore, also as expected, those given the negative mood treatment while their attention was focused on themselves did the least work for the supplicant. Nonetheless, the joint impact of self-awareness and negative mood in dampening helpfulness was fairly weak, if it occurred at all; although the unhappy self-aware people exerted significantly less effort for the experimenter than each of the positive and neutral mood groups, their help amount was not reliably lower than that provided by the other unhappy subjects who were not self-focused. Unlike in the first experiment, a negative mood was successfully established in this study, and there is no good and consistent evidence that a negative mood and self-attention operated together substantially to lessen the subjects' willingness to aid the experimenter.

### Multiple Regression Analysis

A multiple regression analysis was then conducted based on all 60 persons in the experiment to determine the relative contributions of the participants' reported feelings and their ideas about themselves to the prediction of their help scores. The mood index used here was the sum of the two previously mentioned mood scores, and the self-ideas were the numbers of positive and negative self-referential thoughts. There was no sound basis on which the ordering of these predictor variables could have been stipulated beforehand. Although the reasoning spelled out in the introduction emphasized the importance of people's self-conceptions in facilitating or dampening their benevolence, several different processes could have led to the joint operation of mood and self-focus in affecting helpfulness, and I did not have a good reason at the start of this research to prefer one possible process over another. And then, too, some of these findings suggest that how self-awareness interacts with feelings may vary depending on whether the mood is positive or negative in nature. Where the positive mood seemed to work together with self-attention in increasing the willingness to provide assistance, there was not much evidence that mood had interacted with self-awareness in the case of the unhappy subjects. I there-

Table 3  
Experiment 2: Mean Number of Columns Added for  
Experimenter in Response to Aid Request

Self-awareness	Mood condition			Combined
	Positive	Neutral	Negative	
High	16.8 <sub>a</sub>	8.9 <sub>bc</sub>	2.0 <sub>d</sub>	13.85
Low	9.5 <sub>b</sub>	5.3 <sub>cd</sub>	2.4 <sub>d</sub>	8.60
Combined	13.2 <sub>x</sub>	7.1 <sub>y</sub>	2.2 <sub>z</sub>	

Note. Cells not having a common subscript are significantly different at the .05 level of confidence by a Duncan multiple-range test.

Table 4  
Correlations Among Variables and  $t$  Values in Stepwise  
Regression Prediction of Help Scores

Variable	1	2	3	4	$t$	$p$
1. No. positive self-ideas	—	-.15	.28*	.45**	3.58	.001
2. No. negative self-ideas		—	-.44**	-.41**	-3.22	.002
3. Mood			—	.43**	—	—
4. Help scores				—	—	—

Note.  $N = 60$ . In the prediction of the help scores,  $R = .57$ ;  $R^2 = .33$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

fore decided to be relatively conservative in this analysis and carried out a stepwise regression procedure in which the ordering of the variables was determined solely by their partial correlation values.

Table 4 displays the correlations among the four variables: the three predictors and the help scores. As the table indicates, the number of positive self-ideas had little relation to the number of negative self-thoughts, but both of these measures were significantly correlated, although to a modest degree, with the mood index. Furthermore, all three measures had significant first-order correlations with the amount of help given the supplicant. However, when the three predictors were entered into the stepwise regression analysis, only the two self-idea variables contributed significantly to the prediction of the help scores. Thus, controlling for the interrelation of the measures, both the number of positive and the number of negative self-references contributed independently to the prediction of the subjects' effort ( $t = 3.58$ ,  $p < .001$ , and  $t = 3.22$ ,  $p < .002$ , respectively), together yielding a multiple correlation of .57 with the criterion measure. The participants' mood scores did not add significantly to the prediction.<sup>6</sup>

### General Discussion

The two experiments just summarized obtained fairly consistent findings. Both studies demonstrated that self-directed attention tended to operate with a positive mood to increase the subjects' willingness to aid the experimenter. Furthermore, the results in both investigations also indicated that self-awareness and a negative mood had relatively little joint impact on this willingness. Before discussing these outcomes, however, it seems

<sup>6</sup> Another analysis was also carried out to test the possibility that mood was the first determinant of the outcome by influencing the subjects' self-ideas, which then affected their helpfulness. In this simultaneous solution procedure, the mood measure was introduced first, followed by the number of positive self-references and then the number of negative self-thoughts. However, the results were almost identical to that obtained with the stepwise procedure: Again, only the positive and negative self-ideas scores contributed significantly to the prediction of the help scores ( $t = 3.32$  and  $-2.94$ ), the mood measure made no independent contribution ( $t = .023$ ), and, again,  $R = .57$ .

worthwhile to offer a few comments regarding the nature of the help measure.

I pointed out at the start that the participants were asked to work for someone and did not voluntarily initiate their effort on behalf of this person. Most of the subjects did go along with the request to some degree, so they obviously believed they were required or obligated to aid the experimenter to some extent or that it was judicious to do so. But still, they did not work equally hard in all conditions. Were these group differences due simply to the women's activity level? As noted in the introduction, happy people tend to have a high activity level (Batson et al., 1979), so (it could be argued) the experimental treatments might have made some persons more active than the others and thus more willing to do anything. However, the obtained findings argue against this possibility: Although the mood scores have a significant first-order correlation with the help scores, the amount of help provided does not simply parallel the mood results. In Experiment 2, as a case in point, the positive mood induction procedure increased positive feelings only to a relatively small extent, but the participants given this pleasant treatment still worked considerably harder for the supplicant than did the women in any of the other conditions. Then, too, the multiple regression analysis carried out in the second experiment showed that the subjects' reported feelings did not contribute substantially to the amount of effort they exerted. In sum, the subjects' work scores seem to reflect more than activity level and, at the very least, appear to tap their willingness to do what was asked of them. This compliance is likely to be selective. According to Isen's research (Isen, 1984), those who are disposed to go along with another's request for help because of their pleasant feelings are also apt to refuse a request to hurt someone. They are willing to act, but in some ways and not in others.

Accepting the subjects' effort as an index of their willingness to help, it seems relatively easy to explain why this benevolence was greatest under the combination of a positive mood and high self-awareness. First, there is little reason to attribute this effect to a heightened positive mood under this joint state of affairs; the subjects' mood ratings, especially in the second study, show no evidence that self-attention had intensified their positive feelings. Rather, the findings obtained in Experiment 2 point to this plausible process: The participants' self-focus could have activated thoughts about themselves, and their pleasant feelings at the time might then have led these self-ideas in a positive direction. Then, in thinking favorably of themselves, they apparently were inclined to "do the right thing" and aid the experimenter, perhaps because they wanted to be consistent with their favorable self-conception (Bem, 1972; Kraut, 1973). Such an analysis, if it can be extended beyond this study, offers an answer to the rhetorical question raised by Manucia et al. (1984). In discussing the influence of mood on helping, they asked whether the effect was indirect or direct. My results suggest that a positive mood might well affect benevolence mainly in an indirect manner: by shaping the potential benefactors' thoughts about themselves (and perhaps the others in the situation).

However, more has to be known about the mood manipulation used in this research before such a conclusion can be generalized with confidence. Both experiments induced either a posi-

tive or a negative mood by requiring the women to have thoughts and memories of either a positive or a negative nature. These particular thoughts and memories activated by the mood manipulation might have had a greater role in the hypothesized causal chain than did the feelings in themselves largely because of the way the mood was aroused. Thus, the subjects' positive feelings alone (as indexed by their mood ratings) might have been a relatively unimportant influence on their benevolence at least partly because of the highly verbal nature of the mood induction procedure. The data do not allow assessment of this possibility, but positive thoughts and feelings are frequently intertwined. A rapidly growing body of research (see Isen, 1984) testifies to the close linkage between pleasant moods and pleasant ideas and memories. People who are feeling good at the time tend to think alike in many respects, apparently regardless of the specific origin of their mood, and it is evidently difficult to arouse feelings of well-being and happiness without also increasing the likelihood of positive thoughts and memories. As the introduction pointed out, moods can conceivably influence helpfulness through a variety of processes, and it remains an open question what role positive affect-mediated thoughts have in this influence. The question is difficult to resolve.

My findings regarding the combined operation of negative mood and self-awareness are even more problematic. Although these two variables did not interact significantly in the overall ANOVAS, in the second study post hoc group comparisons guided by the earlier research of Scheier and Carver (1977) indicated that the self-directed attention had intensified the unpleasant feelings generated by the negative mood induction. Nonetheless, the regression analysis reported here suggests that these feelings in themselves did not significantly dampen the participants' willingness to aid the supplicant. Instead, it appears that self-focus and negative mood operated together for many subjects to create a negative self-conception, perhaps the self-concern I have discussed elsewhere (Berkowitz, 1970), which in turn increased their reluctance to render the requested assistance. But if this is so, why did the group working under both high self-awareness and negative mood not display reliably less effort than did their less self-aware counterparts also made to feel bad? There was a tendency in this direction, but why was it not clearly revealed? One possibility is that there was a floor below which the subjects were unwilling to go; they could have all felt some pressure or obligation to help the experimenter. Another possibility, suggested by Isen's (1984) research results, is that unpleasant feelings tend to give rise to a broader variety of reactions than do pleasant feelings. Not all of these reactions facilitated the development of self-concern, and some of the negative mood-generated inclinations might even have increased the readiness to be benevolent. It could be that it was primarily those persons who thought relatively poorly of themselves—whether because of the combined operation of self-attention and negative mood induction or because of other factors in the experimental situation or themselves—who were most apt to resist the request for aid.

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Received May 2, 1986

Revision received October 13, 1986 ■