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The Influence of Attributions on the Relevance of Negative Feelings to Personal Satisfaction

Dacher Keltner
University of Wisconsin–Madison
Kenneth D. Locke
Paul C. Audrain
Stanford University

This investigation examined the influence of emotional attributions on the relevance of current feelings to judgments of personal satisfaction. In the first three studies, subjects were led to make different attributions for their naturally occurring feelings and then asked to judge their personal satisfaction. Satisfaction was higher after situational and specific attributions than after general and self-referential attributions, but only in domains that were unrelated to the causes to which subjects attributed their feelings. Study 4 tested whether affective states such as emotions with clearly defined causes are less relevant to judgments of life satisfaction than more diffuse states such as moods. Satisfaction was elevated after a laboratory mood induction only when subjects were led to focus on their moods in ways characteristic of emotional states (by articulating specific causes and labels for their feelings). These studies illuminate the role of emotional attribution in judgments of personal satisfaction.

Emotional experience depends on whether people perceive their feelings to be about something specific and local or general and global. Given similar situations, people may be angry at their boss or angry at authority generally; distressed about a troubled friendship or about interpersonal relations in general; ashamed of a specific failure or about their life in general. In these examples, the original cause of people's feelings may be the same—for both alternatives in each pair, an irritable boss, an argument with a friend, or a failure to meet their expectations—yet how people interpret the source of their feelings results in feelings of more general or more specific scope.

Studies of the influence of feelings[1] on judgment indicate that people tend to perceive negative feelings originally caused by specific events to be relevant to global judgments. Negative feelings have been shown to influence judgments of well-being (Schwarz & Clore, 1983; Strack, Schwarz, & Gschneidinger, 1985), social perception (Forgas & Bower, 1987), personal responsibility and fairness (Keltner, Ellsworth, & Edwards, in press), perceptions of risk (Johnson & Tversky, 1983), and even consumer satisfaction (Gardner, 1985; Isen, Shalker, Clark, & Karp, 1978). Negative feelings appear to produce a pessimistic outlook that is not limited to the events that elicited them.

The global influence of negative feelings on judgments, however, depends on people's attributions for their current feelings. In a series of provocative studies on the "feelings as information" approach (Schwarz, 1990; Schwarz & Clore, 1988), Norbert Schwarz and his colleagues have shown that people use their negative feelings to judge their personal satisfaction, except when they attribute those feelings to causes that are unrelated to their personal satisfaction (Schwarz & Clore, 1983; Schwarz, Servay, & Kumpf, 1985; Schwarz, Strack, Kommer, & Wagner, 1987; Strack et al., 1985). For example, in one study (Schwarz & Clore, 1983, Experiment 1), subjects experiencing negative feelings after vividly describing a negative life event reported lower global life satisfaction than subjects who had vividly described a positive life event. However, this difference disappeared when subjects who described negative events were led to attribute their feelings to uncomfortable features of the

Authors' Note: Address correspondence to Dacher Keltner, Department of Psychology, University of Wisconsin–Madison, 1202 West Johnson Street, Madison, WI 53706.

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experimental room. Having attributed their current feelings to a transient, external circumstance, subjects discounted the relevance of their feelings to judgments about their life in general.

The current investigation extended the logic of the "feelings as information" approach in two directions. Previous studies by Schwarz and colleagues have only documented how attributions of current feelings *decrease* the relevance of those feelings to judgments of satisfaction. Our first interest, therefore, was to demonstrate that attributions for negative feelings also *increase* the relevance of negative feelings to personal satisfaction. The idea that people's interpretation of events lowers personal satisfaction is central to research on well-being (Diener, 1984; Kammann, 1983), depression (Coyne & Gotlib, 1983), stress (Lazarus, 1966), and attributional style and depression (Abramson, Seligman, & Teasdale, 1978; Metalsky, Abramson, Seligman, Semmel, & Peterson, 1982; Seligman, Abramson, Semmel, & von Baeyer, 1979). These results lead one to ask what kinds of attributions for negative feelings would increase their personal relevance and thus lower personal satisfaction.

Attribution theory (Kelley, 1973) suggests two emotional attributions that might increase the relevance of current feelings to personal satisfaction. First, attributions of negative feelings to global circumstances should increase the range of circumstances to which the feelings are relevant and therefore lower levels of personal satisfaction. Attributions of negative feelings to a specific event should have the opposite effect and raise levels of personal satisfaction. Second, self-referential attributions of negative feelings should increase the personal relevance of those feelings and thereby lower levels of personal satisfaction. Situational attributions should have the opposite effect and raise levels of satisfaction.

Our second interest in this investigation concerns the impact of feelings on domains of judgment that are both unrelated *and* related to the perceived causes of those feelings. In Schwarz and colleagues' studies, subjects judged their satisfaction in domains that were unrelated to the events to which they attributed their negative feelings. Consequently, the question remains whether satisfaction would increase or decrease in a domain *related* to the causes to which the feelings are attributed. For example, if a person attributes current feelings of distress to a tense time in her career, will she feel less satisfied, more satisfied, or comparably satisfied about her job-related achievements, compared with the satisfaction she would feel in the absence of such an attribution?

When people attribute their negative feelings to a specific cause, they may discount the relevance of those feelings to *any* judgment of satisfaction. If so, one would expect specific emotional attributions to elevate levels of satisfaction across domains. We predict, instead, that people will continue to use their feelings to judge their satisfaction in domains related to the perceived cause. Consequently, we expect personal satisfaction to be elevated in domains unrelated to the perceived cause but to remain low in domains related to the perceived cause.

We tested these hypotheses in four studies. In the first two studies, subjects were led to frame the causes of their negative feelings in general terms or in specific terms or were not led to frame their feelings in a particular way. The subjects then rated their satisfaction in domains related and unrelated to the perceived causes of their feelings. We expected subjects who attributed their current negative feelings to a specific event to express greater life satisfaction than subjects who attributed their feelings to global circumstances, but only in domains unrelated to the perceived cause of their feelings. In Study 3, subjects were led to frame either themselves or the external situation as the cause of their feelings. We hypothesized that subjects who attributed their feelings to features of the situation would rate their satisfaction as higher than those who attributed their feelings to themselves. In each of these studies, we expected the attribution manipulations to alter the relevance, but not the intensity, of subjects' negative feelings. Finally, in Study 4, we expected subjects who were led to focus on their feelings as specific emotions to report more elevated satisfaction than subjects who were led to focus on their feelings as diffuse moods.

STUDY 1: GLOBAL AND SPECIFIC ATTRIBUTIONS OF NEGATIVE FEELINGS AFTER A PRESIDENTIAL ELECTION

Method

SUBJECTS

We handed out questionnaires in undergraduate dormitories at Stanford University during the morning after the 1988 presidential election. Eighty-seven students completed the questionnaire: 55 were supporters of Michael Dukakis, 18 were supporters of George Bush, and 14 did not support either candidate. Because Dukakis lost the election, we expected his supporters to be experiencing negative feelings. Because of this and the small number of Bush supporters, only the responses of Dukakis supporters were used in the following analyses. Subjects were randomly assigned to three conditions. There were 18 Dukakis supporters in the control condition, 17 in the specific attribution condition, and 20 in the general attribution condition.

PROCEDURE

Emotion attributions. Subjects were induced to attribute their feelings to either a specific or a global circumstance

in the way they rated how upset, anxious, and content they were on three 7-point Likert-type scales. Subjects in the *specific attribution* condition rated how upset, anxious, and content they were feeling "right now in response to the outcome of the presidential election"; this wording was expected to lead subjects to attribute their feelings to that specific event. Subjects in the *general attribution* condition rated how upset, anxious, and content they were feeling "right now in response to *things in general*"; this wording was expected to lead subjects to attribute their feelings to more global circumstances. These manipulations held constant the feelings for which subjects made attributions but varied the causes to which they attributed those feelings. Subjects in the two attribution conditions then completed the life satisfaction questionnaire. Subjects in the *control* condition first completed the life satisfaction questionnaire and then rated their current feelings in the same fashion as subjects in the specific attribution condition.

Judgments of life satisfaction. The life satisfaction questionnaire was presented as part of another investigation on "personal and political attitudes." The questionnaire consisted of eight questions that assessed life satisfaction in domains related and unrelated to the salient emotional event. Six questions prompted subjects to rate their personal satisfaction outside the domain of political satisfaction: their satisfaction with their "social-personal life," "academic performance," and "life in general" and their level of optimism for "how much you will enjoy your remaining time at Stanford," "how prepared you will be for a career after Stanford," and "how prepared you will be for life in general after Stanford." Two questions prompted subjects to rate their political satisfaction with "President Reagan's overall performance in office" and the "United States government's concern for the welfare of its people." Subjects made these judgments on 11-point bipolar scales ranging from –5 (*very negative/unprepared*) to +5 (*very positive/prepared*), with extreme, neutral, and moderate responses all clearly labeled. These satisfaction items are similar to those used in previous investigations of life satisfaction (Forgas & Moylan, 1987; Schwarz & Clore, 1983).

Results

Valence of current feelings. Preliminary analyses examined the extent to which the election results elicited negative feelings in Dukakis supporters. The average of subjects' ratings of how upset and anxious they were was subtracted from their ratings of how content they were to yield a composite score of the valence of their feelings.[2] As expected, subjects did not differ significantly across conditions on this composite, $F(2, 52) = 1.08$, $p > .25$ (control, –2.67; specific attribution, –1.67; general attribution, –2.85). A one-sample t test found the valence of subjects' feelings to be significantly less than zero, $t(54) = 7.01$, $p < .01$. Further evidence that subjects' current feelings were influenced by the election is seen in the more positive feelings of Bush supporters (composite mean = +4.45).

TABLE 1: Mean Judgments of Personal and Political Satisfaction by Condition, Study 1

	Control (n = *18*)	*Specific Attribution* (n = *17*)	*General Attribution* (n = *20*)
Personal satisfaction	1.40_a (0.28)	2.26_b (0.15)	1.02_a (0.31)
Political satisfaction	0.83_a (0.35)	1.20_a (0.35)	0.35_a (0.48)

NOTE: Ratings could range from –5 to +5; higher numbers indicate greater satisfaction. Standard errors are in parentheses. Means within rows not sharing a subscript differ at the .05 level by Newman-Keuls tests.

Judgments of life satisfaction. For each subject, two measures of life satisfaction were computed. Political satisfaction was computed by averaging the ratings on the two political satisfaction questions. Personal satisfaction was computed by averaging the ratings on the six personal satisfaction questions. Table 1 shows the mean levels of personal and political satisfaction for subjects in each condition.

A two-way analysis of variance with type of attribution (specific, general, or control) as a between-subjects factor and domain of satisfaction (personal or political) as a within-subjects factor was conducted. It was expected that satisfaction would be higher after specific attributions than general attributions (a main effect), but only in the domain unrelated to the salient cause of emotion (an attribution by domain interaction). As expected, subjects in the specific attribution condition did report the highest satisfaction and subjects in the general attribution condition the lowest satisfaction, $F(2, 52) = 3.19$, $p < .05$. In addition, personal satisfaction was higher than political satisfaction, $F(1, 52) = 14.12$, $p < .001$. Contrary to expectations, type of attribution did not interact with domain of satisfaction, $F(2, 52) = 0.52$, $p > .20$, although simple effect analyses revealed that the effect of attribution was significant for personal satisfaction, $F(2, 52) = 5.65$, $p = .006$, but not for political satisfaction, $F(2, 52) = 1.13$, $p > .25$.

Relation between current feelings and judgments of life satisfaction. On the basis of previous findings (Schwarz & Clore, 1983), the correlation between subjects' feelings

and levels of satisfaction was expected to be weakened by the specific attribution manipulation and strengthened by the global attribution manipulation. The correlation between subjects' current feelings (the valence composite) and their judgments of personal satisfaction (the average of all satisfaction items) was significant in the general attribution condition ($r = -.36$, $p < .05$), but not in the control condition ($r = -.01$) or the specific attribution condition ($r = -.02$). The differences between these correlations were not significant.

STUDY 2: GLOBAL AND SPECIFIC ATTRIBUTIONS OF NEGATIVE FEELINGS AFTER A MIDTERM EXAMINATION

The outcome of a presidential election may be only modestly relevant to students' personal satisfaction. More compelling evidence for our first hypothesis would be provided if the different effects of specific and global attributions on judgments of satisfaction were observed after an event of greater relevance to students' personal satisfaction. Given the direct relevance of exams to students' well-being and emotional life (e.g., Folkman & Lazarus, 1985; Smith & Ellsworth, 1987), we next examined our first hypothesis in the context of an examination.

Method

SUBJECTS

Before taking an examination, students in an introductory psychology course at Stanford University were told that two brief questionnaires attached to the back of the examination were to be filled out on completion of the exam. One questionnaire was described as relevant to their perceptions of the exam and the other as relevant to their "personal attitudes." Students were told that completing the questionnaires was optional and that their responses would be anonymous. One hundred and five students completed the questionnaires (71% of the enrolled class). Thirty-three subjects ended up in the control condition, 38 in the specific attribution condition, and 34 in the general attribution condition.

PROCEDURE

Emotion attributions. As in Study 1, subjects rated how anxious, upset, and content they were on 7-point Likert-type scales. Subjects in the *specific attribution* condition rated how they were feeling "right now in response to the exam"; this was expected to lead subjects to attribute their feelings to the specific event, the exam. Subjects in the *general attribution* condition rated how they were feeling "right now in response to *things in general*"; this was expected to lead subjects to attribute their feelings to more global circumstances. Subjects in the *control* condition first completed the life satisfaction questionnaire and then rated their current feelings in the same fashion as subjects in the specific attribution condition.

TABLE 2: Mean Judgments of Personal and Academic Satisfaction by Condition, Study 2

	Control (n = *33*)	*Specific Attribution* (n = *38*)	*General Attribution* (n = *34*)
Personal satisfaction	3.26_a (0.18)	3.16_a (0.23)	2.34_b (0.27)
Academic satisfaction	1.26_a (0.30)	0.13_b (0.36)	0.59_a (0.41)

NOTE: Ratings could range from –5 to +5; higher numbers indicate greater satisfaction. Standard errors are in parentheses. Means not sharing a subscript differ at the .05 level by Newman-Keuls tests.

Judgments of life satisfaction. The life satisfaction questionnaire consisted of six questions; the first four concerned personal satisfaction outside the domain of academics, and the last two concerned academic satisfaction. Subjects rated on 11-point bipolar scales (ranging from –5 to +5) "how satisfied are you with life in general," "how prepared for life in general are you," "how much do you expect to enjoy your remaining years at Stanford," "how satisfied are you with your social life," "how satisfied are you with your academic performance," and "how satisfied are you with your performance on the midterm examination." Exam performance was placed last to eliminate the possibility that this question would function as a "specific attribution" manipulation and lead subjects to attribute their current feelings to the immediate situation.

Results

Valence of current feelings. As in Study 1, a composite of subjects' current feelings was computed. Once again, subjects did not differ significantly across conditions in the valence of their current feelings, $F(2, 100) = 2.00$, $p = .14$ (control, –0.40; specific attribution, –1.05; general attribution, +0.48). The valence of subjects' feelings was not significantly different from zero, $t(104) = .94$, $p > .25$, largely because of the slightly positive feelings of subjects in the general attribution condition.

Judgments of life satisfaction. We computed two measures of life satisfaction for each subject. Personal satisfaction was computed by averaging subjects' ratings of their general satisfaction, life preparation, expectations of enjoying Stanford, and social satisfaction. Academic satisfaction was computed by averaging subjects' ratings of their academic and exam satisfaction. Table 2 presents the mean levels of personal and academic satisfaction for subjects in each condition.

A two-way analysis of variance with type of attribution as a between-subjects factor (specific, general, or control) and domain of satisfaction as a within-subjects factor (personal or academic) found a trend for type of attribution, $F(2, 102) = 2.46$, $p = .08$, and a significant effect for domain of judgment, $F(1, 102) = 121.67$, $p < .001$ (personal satisfaction was greater than academic satisfaction). As expected, type of attribution interacted with domain of judgment, $F(2, 102) = 3.29$, $p < .03$. Simple effects analyses revealed a significant effect of type of attribution for personal satisfaction, $F(2, 102) = 4.61$, $p = .01$, but only a marginal effect for academic satisfaction, $F(2, 102) = 2.24$, $p = .10$. As expected, general attribution subjects had the lowest personal satisfaction, and specific attribution subjects had the lowest academic satisfaction.

Relation between current feelings and judgments of life satisfaction. As expected, correlations between composite measures of current feelings and life satisfaction were weaker in the specific attribution condition ($r = -.36$, $p < .05$) than in the control condition ($r = -.56$, $p < .05$) or in the general attribution condition ($r = -.60$), although these differences did not reach significance. Of note, in no condition was the relation between subjects' actual test scores and their personal satisfaction significant (control, $r = .18$; specific attribution, $r = .26$; general attribution, $r = .12$).

DISCUSSION OF STUDIES 1 AND 2

Across both the election and examination studies, subjects expressed greater life satisfaction after attributing their negative feelings to specific causes than to general causes, but only in domains unrelated to the salient causes of their feelings. The main difference in the results across the two studies pertained to the levels of satisfaction of control subjects relative to those of subjects in the experimental conditions. After the presidential election (Study 1), control subjects' levels of satisfaction were relatively low and most similar to those of subjects in the general attribution condition, whereas after the examination (Study 2), control subjects' levels of satisfaction were relatively elevated and most similar to those of subjects in the specific attribution condition. This pattern of results is sensible given the nature of the emotional events in the two studies. An examination may be a more salient cause of emotion for most students than the outcome of a presidential election. Consequently, control subjects may have been more inclined to make specific attributions for their feelings after the exam than after the election, which would account for their different levels of life satisfaction across the two studies. As suggested by Schwarz and Clore (1988), in the absence of making attributions for current feelings, as in the case of the control subjects, events that are less salient causes of emotion may lower personal satisfaction most.

STUDY 3: SELF-REFERENTIAL AND SITUATIONAL ATTRIBUTIONS OF NEGATIVE FEELINGS BEFORE FINAL EXAMINATIONS

Studies 1 and 2 documented the effects of specific and global emotional attributions on the relevance of negative feelings to judgments of personal satisfaction. Study 3 examined whether the relevance of negative feelings to judgments of personal satisfaction is increased when those feelings are attributed to the self rather than to external features of the situation.

Although some characteristics of external situations may be perceived as stable, global, and personally relevant (for example, institutionalized racism), many situational characteristics are perceived as specific to a situation or class of situations. Characteristics of the self, however, tend not to be seen as situation specific. We therefore would expect situational attributions to decrease the relevance of current feelings to personal satisfaction and self-referential attributions to increase it.

To test this hypothesis, subjects assessed their life satisfaction during a time thought to be associated with negative feelings—the Sunday evening before final examinations. Before assessing their life satisfaction, subjects were exposed to two manipulations. First, to examine the influence of the salience of the emotional event, subjects either were or were not given a causal description of how Sunday evening causes negative feelings. Subjects were then led to attribute their current feelings to themselves or to the situation (Sunday evening), or they were not led to make an attribution for their feelings.

Method

SUBJECTS

Subjects were 105 Stanford undergraduates who completed a questionnaire given to them in their dormitories between 7:00 and 9:00 p.m. on the Sunday before final exams. Subjects were randomly assigned to six groups defined by a 2 (Presence or Absence of Causal Description) by 3 (Type of Emotional Attribution) factorial design.

PROCEDURE

The questionnaires consisted of three parts that (a) either gave subjects a causal description of their feelings or did not, (b) either prompted subjects to make self-

referential or situational attributions for their current feelings or did not, and (c) prompted subjects to assess their life satisfaction. Subjects given a plausible description of their feelings read the following description, which outlined likely causes for their current feelings.

> Prior research has found that people are often blue or anxious on Sunday evening (otherwise known as the "Sunday blues"). Some of the reasons might include that Sunday is the end of the weekend, that people think about all they have to do in the upcoming week, and that these thoughts and the transition to the work week can result in negative feelings.

In the other conditions, subjects read no description.

Emotion attributions. Next, subjects in the experimental conditions were led to attribute their feelings to self-referential or situational causes. In both experimental conditions, subjects rated how anxious, blue, and upset they were on a series of 1-to-9 rating scales, where 1 indicated *not at all* and 9 indicated *extremely*. Self-referential or situational elements of the emotional context were made salient by being placed in the initial noun position of the sentence, which varied across the two conditions. In the *situation-salient* condition, subjects were asked how anxious, blue, and upset "Sunday evening makes you feel." This phrasing emphasized the situation (Sunday evening) as the causal agent and framed subjects' feelings as responsive to the situation. In the *self-salient* condition, subjects were asked how anxious, blue, and upset "you feel about it being Sunday evening." This phrasing placed the subjects themselves at the beginning, framing them as the cause of their feelings. Control subjects made the same ratings as the situation-salient subjects after assessing their life satisfaction.

The situation-salient versus self-salient manipulation was expected to influence the way subjects framed the causes of their current feelings. To illustrate the impact of this manipulation, compare likely responses to "How did the family reunion make you feel?" and "How did you feel about the family reunion?" The first question leads one to consider how aspects of the family reunion caused the feelings associated with the event. The second leads one to think about the personal factors that were responsible for one's feelings about the event.

Judgments of life satisfaction. All subjects then assessed on a series of 11-point scales (like those used in Studies 1 and 2) their general satisfaction, preparedness for life, expectations for enjoying the future, social-personal satisfaction, and academic satisfaction. These questions appeared on a separate sheet and were described as part of another investigation of "students' attitudes." Finally, subjects assessed to what extent they felt Sunday evening and the time in the academic quarter were each responsible for their current feelings on two 1-to-9 scales, where 1 indicated *not at all* and 9 indicated *extremely*.

Results and Discussion

Valence of current feelings. Subjects indicated feeling moderate levels of anxiety ($M = 4.41$), being blue ($M = 4.29$), and being upset ($M = 3.20$). As expected, there were no significant effects of type of attribution or presence of causal description on these measures, all $ps > .20$.

Perceived causes of current feelings. It was expected that subjects in the situation-salient conditions would perceive Sunday evening as more responsible for their current feelings than subjects in the self-salient or control conditions. A two-way analysis of variance with causal description (present or absent) and emotional attribution (self salient vs. situation salient vs. control) as between-subjects factors indicated a significant effect for emotional attribution, $F(2, 99) = 8.90$, $p < .001$. Subjects in the situation-salient condition rated Sunday evening as more responsible for their current feelings ($M = 5.25$) than subjects in the self- salient condition ($M = 3.02$) or control subjects ($M = 3.42$), both $ps < .05$ in the Newman-Keuls comparisons. Neither the causal description factor nor the interaction term had a significant effect, both $ps > .10$. Subjects in the situation-salient condition also perceived the time in the academic quarter (the night before final examinations week) to be more responsible for their current feelings (7.61) than subjects in the self-salient (6.05) or control condition (6.88), $F(2, 97) = 5.53$, $p < .005$.

Judgments of life satisfaction. Personal satisfaction was computed by averaging subjects' ratings on the five satisfaction items. The means for all groups are presented in Table 3.

A two-way analysis of variance was performed on subjects' satisfaction ratings, with causal description (presence vs. absence) and emotional attribution (self vs. situation vs. none) as between-subjects factors. Only the main effect of emotional attribution was significant, $F(2, 96) = 4.64$, $p < .01$. As seen in Table 3, self-referential attributions of current feelings produced lower levels of satisfaction, whereas situational attributions increased levels of personal satisfaction. Neither the main effect of presence of causal description nor the interaction term was significant, both $ps > .10$.

Relation between current feelings and judgments of life satisfaction. The correlation between the composite of subjects' feelings and the composite of their satisfaction was significant only for subjects who made self-referential attributions of their negative feelings and were given a causal description ($r = -.53$, $p < .05$).

TABLE 3: Mean Judgments of Life Satisfaction by Presence and Absence of Causal Description and Emotional Attribution, Study 3

	Given No Causal Description			*Given Causal Description*		
	No Attribution (n = 15)	*Situation Salient (n = 13)*	*Self-Salient (n = 18)*	*No Attribution (n = 20)*	*Situation Salient (n = 14)*	*Self-Salient (n = 19)*
Satisfaction	2.76_{ab} (0.33)	2.86_{ab} (0.32)	2.01_{a} (0.41)	2.53_{ab} (0.25)	3.46_{b} (0.26)	2.27_{a} (0.36)
Difference from baseline	0	+0.10	−0.75	−0.23	+0.70	−0.49

NOTE: Ratings could range from −5 to +5; higher numbers indicate greater satisfaction. Standard errors are in parentheses. Means not sharing a subscript differ at the .05 level by Newman-Keuls tests. The *n*s refer to the number of subjects in each condition that filled out the life satisfaction questionnaire.

STUDY 4: RELEVANCE OF NEGATIVE MOODS AND EMOTIONS TO JUDGMENTS OF PERSONAL SATISFACTION

Study 4 was carried out to test Schwarz and Clore's proposal that specific emotions are less relevant than diffuse moods to judgments of satisfaction (Schwarz, 1990; Schwarz & Clore, 1988). Because emotions are perceived to be caused by specific, salient events, emotions should be seen as relevant only to judgments concerning those events. In contrast, because moods have less clearly defined, often unidentified causes (Ekman, 1984; Frijda, 1986), moods can be seen as relevant to a wide variety of judgments. When one is in a negative mood, as when attributing negative feelings to global, personal causes, personal satisfaction should be relatively low. In contrast, when one is in a negative emotional state, as when attributing current feelings to specific, situational causes, personal satisfaction should be relatively high. Study 4 tested this hypothesis by inducing subjects to experience negative moods and then prompting subjects in certain conditions to focus on emotionlike qualities of their feelings by articulating specific causes and labels of their feelings.

Method

Subjects. Seventy-two students signed up to participate as part of an introductory psychology course requirement at Stanford University. Subjects were randomly assigned to one of five conditions. After hearing an advance description of the mood induction, two subjects for whom the mood induction was too personal or distressing declined to participate.

Procedure. Subjects in the *neutral baseline* condition simply completed the life satisfaction questionnaire. In the other four conditions, the experimenter told subjects that the study concerned the imagining of hypothetical situations. The experimenter also informed subjects in the room attribution condition that the architectural features of the experimental room might induce negative moods, so that the effect of the room was another concern of the study. (The room was indeed small and cluttered.) Then the experimenter gave subjects a three-page experimental packet and asked them to proceed through the packet page by page. Subjects were alone during the experiment.

The first page of the experimental packet contained the mood induction: Subjects were asked to read a story in which their mother died unexpectedly. To prevent subjects from scanning the scenario repetitively with little involvement, the story was divided into five parts, and subjects were asked to spend 2 min on each part. (A clock was placed on the table next to the subjects.) While reading the story, the subjects were asked to "imagine a real setting, people you know, and how you would feel, think, and act." The induction has reliably elicited negative feelings in past research (Keltner et al., in press; Morrow & Nolen-Hoeksema, 1990).

The second page of the experimental packet either asked subjects to focus on the causes of their feelings or did not. In the *no attribution* condition, subjects were asked to "think for an instant about the situation you just imagined yourself in and write a sentence or two about what your actions would be towards the other people in the situation." These directions led subjects to continue attending to the mood induction without focusing on the causes of their feelings. In the other conditions, subjects were asked to focus on the causes of their feelings in one of three ways. In the *induction attribution* condition, subjects were asked to "think for an instant about how you feel right now after having imagined yourself in the preceding situation, and then write a sentence or two about those feelings (i.e., what emotion you feel and why)." In the *emotion label* condition, subjects were asked to "think about your current emotions and their causes and then write down the two words that best characterize your current emotions." In the *room attribution* condition, subjects were asked to "think about how you feel right now after having spent some time in this room, and then write a sentence or two about how the features of this room have influenced your current emo-

TABLE 4: Mean Judgments of Life Satisfaction by Condition, Study 4

	No Causal Attribution (n = *14*)	*Neutral Baseline* (n = *12*)	*Room Attribution* (n = *14*)	*Induction Attribution* (n = *14*)	*Emotional Label* (n = *16*)
Satisfaction	1.05_a (0.33)	1.58_{ab} (0.46)	1.86_{ab} (0.22)	2.43_b (0.29)	2.43_b (0.33)
Difference from neutral baseline	–.53	0	+.28	+.85	+.85

NOTE: Ratings could range from –5 to +5; higher numbers indicate greater satisfaction. Standard errors are in parentheses. Means not sharing a subscript differ at the .05 level by Newman-Keuls tests.

tional state." The third and final page of the experimental packet contained the life satisfaction questionnaire, which consisted of the same eight satisfaction questions used in Study 1 and was presented as a separate study on "political and personal attitudes."

Results

Life satisfaction was computed as the mean of the eight satisfaction items. Table 4 shows the mean level of satisfaction in each condition.

A one-way analysis of variance on these ratings showed significant differences between conditions, $F(4, 69) = 3.20$, $p < .02$. Replicating Schwarz and Clore (1983), subjects who attributed their negative feelings to an unpleasant room were more satisfied than subjects in the no-attribution condition, $t(26) = 2.01$, $p < .05$ (one-tailed). Subjects in the induction attribution and emotion label conditions were also more satisfied than subjects in the no-attribution condition, both $ps < .01$ in the Newman-Keuls tests. There were no differences in the levels of satisfaction observed in the room attribution, emotion label, and induction attribution conditions.

GENERAL DISCUSSION

The four studies presented here examined the influence of emotional attributions on the relation between current feelings and judgments of life satisfaction. In the first two studies, people who attributed their feelings to general causes expressed lower levels of satisfaction than those who attributed their feelings to specific events. Similar effects were observed in Study 3: Subjects' levels of satisfaction were lower after self-referential attributions and elevated after situational attributions. Finally, in Study 4, satisfaction was elevated after a mood induction only after subjects articulated the causes and labels of their feelings in ways characteristic of specific emotions.

These findings extend the "feelings as information" perspective (Schwarz, 1990; Schwarz & Clore, 1988) in several directions. First, it appears that attributions for current feelings can increase as well as decrease the relevance of negative feelings to judgments of personal satisfaction. Second, specific attributions for current negative feelings seem to increase personal satisfaction only in domains unrelated to the perceived cause of emotion. And third, there is preliminary evidence supporting the notion that certain affective states exert less influence on judgments of personal satisfaction than others. In particular, states such as emotions with clearly defined causes are less relevant to judgments of life satisfaction than states such as moods, whose causes are not clearly specified. These findings, more generally, provide further evidence that people construct their judgments of personal satisfaction on the basis of the relations they perceive between their current feelings and the various domains in their lives.

NOTES

1. For purposes of exposition we have selected the term *feelings* to represent the different kinds of affect, such as moods or emotions, that have been shown to influence judgments.

2. Recall that the wording used to prompt subjects' self-reports of current feelings varied across conditions as part of the experimental manipulation (true for Study 2 and Study 3 as well).

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