

## Service Experiences and Satisfaction Judgments: The Use of Affect and Beliefs in Judgment Formation

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Recalling a service experience may increase the accessibility of relevant beliefs and affect an individual's temporary mood. We examine the interplay of mood and accessible beliefs in the construction of satisfaction judgments. We find that episodically recounting the specific service encounter results in assimilation effects on the satisfaction ratings of both the service provider and a competitive company. Analytically recounting the service encounter, on the other hand, results in assimilation effects for judgments of the service provider and effects in the direction of contrast for judgments of the competitive company. In this case, beliefs about the service provider appear to provide a comparison standard against which the competitive company is judged. Implications of these findings for measuring and managing consumer satisfaction are discussed.

In customer satisfaction surveys, respondents are often asked both to recall a specific product experience or service encounter and to report an overall evaluation of their satisfaction with the product or service provider. For example, in a recent Market Facts mail-panel survey, respondents were asked to rate their satisfaction with their auto insurance provider, first on the handling of a specific recent claim and then overall. This information is important because overall perceptions of service quality (and thus intended behavior) are a function of the level of service obtained during the most recent encounter (Boulding, Kalra, Staelin, & Zeithaml, 1993). Another common strategy is to elicit a recent positive or negative experience and then have the respondent describe the details of the experience (e.g., Bitner, Booms, & Tetreault, 1990; Vavra, 1997). Recalling a critical service encounter can help the firm identify key service or product dimensions and diagnose service related problems (Bitner et al., 1990; Hayes, 1992).

In this article, we examine how recalling a specific consumer experience affects consumers' reported satisfaction

with (a) the specific service provider or product, (b) the general type of service providers or products, and (c) competing service providers or products. We assume that recalling a specific service episode, for example, increases the temporary accessibility of attribute information pertaining to this episode and the service provider. This information can influence subsequent judgments of the specific provider, a competing provider, and the general type of providers in different ways, which we conceptualize next in terms of Schwarz and Bless's (1992a) inclusion-exclusion model. However, recalling a service episode may also reinstantiate the feelings that were associated with this past episode, and these feelings may, themselves, serve as information in forming a satisfaction judgment (e.g., Schwarz & Clore, 1983). In fact, previous research has shown that both affect and cognition can have a direct effect on consumer-satisfaction judgments (Pham, 1998; Westbrook, 1987; Westbrook & Oliver, 1991; for a review, see Oliver, 1997). Of importance, however, judgments based on reinstantiated feelings and judgments based on accessible features of the episode may diverge under specific conditions, and this potential divergence is of central interest in the research presented here. Specifically, we predict that affective responses associated with a particular past experience will influence all subsequent satisfaction judgments, regardless of whether they pertain to the focal service provider, a

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competitor, or the general provider category. In contrast, cognitions associated with the recalled experience will be used to construct a satisfaction judgment for the focal company but may be used as a standard of comparison in constructing satisfaction judgments for a competitive company. Our results are consistent with these predictions.

We first provide some background by reviewing relevant theorizing and previous research and subsequently report three studies. Study 1 tests how recalling an autobiographical service experience influences judgments of the focal service provider when the recall task does, or does not, dwell on the affect associated with the experience. Studies 2 and 3 extend this test from the focal service provider to judgments of its competitors, as well as judgments of the type of service provider in general. Finally, we discuss the implications of our findings for theory and practice.

### THE EFFECTS OF RECALLING AUTOBIOGRAPHICAL EXPERIENCES ON SATISFACTION JUDGMENTS

A truism of social cognition research holds that judgments are often constructed on the spot, based on information that is most accessible at that point in time (e.g., Feldman & Lynch, 1988; Schwarz & Bless, 1992a; Tourangeau & Rasinski, 1988). This information may be declarative (e.g., attributes of the target of judgment) or experiential (e.g., one's own mood at the time of judgment) in nature. Of importance, recalling an autobiographical experience may render both sources of information accessible. On the one hand, recalling an autobiographical event increases the temporary accessibility of attributes of this event, rendering it likely that these attributes are considered in forming a subsequent judgment (e.g., Strack, Schwarz, & Gschneidinger, 1985). On the other hand, recalling an autobiographical event may also render accessible the emotions or feelings associated with the specific past encounter (e.g., Baumgartner, Sujan, & Bettman, 1992; Strack et al., 1985; Sujan, Bettman, & Baumgartner, 1993). This is particularly likely when the event is recalled in a vivid and detailed manner. For example, Strack et al. asked respondents either to describe "how" an event unfolded (a task that encourages vivid recall) or to explain "why" the event occurred. The episodic recounting elicited by the "how" instructions resulted in pronounced mood changes, whereas the analytic recounting elicited by the "why" question did not (for conceptual replications, see Clark & Collins, 1993; Clark, Collins, & Henry, 1994). Similarly, Baumgartner et al. observed that encouraging an autobiographical focus during exposure to an advertisement resulted in higher levels of felt affect (both positive and negative) compared to a condition in which participants were instructed to focus on the product description.

As previous research into life-satisfaction judgments demonstrates, both the accessible attributes of the target of judgment and the judge's feelings at the time may serve as input into judg-

ment formation (see Schwarz & Strack, 1991, 1999). These declarative and experiential sources of information, however, may affect judgments of different targets in different ways.

### Declarative Information

Suppose you are asked to recall a particularly positive, or a particularly negative, service experience you had at McDonald's. Not surprisingly, subsequent evaluations of McDonald's would be more positive in the former than in the latter case, reflecting that the recall task rendered different attributes of McDonald's accessible. This prediction is consistent with many accessibility models of judgment (e.g., Feldman & Lynch, 1988; Higgins, 1996). In terms of Schwarz and Bless's (1992a) inclusion-exclusion model, this reflects that the accessible attribute information is included in the representation formed of McDonald's, resulting in assimilation effects on judgments based on this representation.

Next, suppose that following the McDonald's recall task, you are asked to evaluate Burger King instead of McDonald's. In this case, the recalled episode does not directly pertain to the object of judgment (Burger King). However, you may use the recalled episode as a standard of comparison and relative to the particularly good (or bad) experience with McDonald's, your typical experiences with Burger King may seem less satisfying (or more satisfying, respectively). In general, information pertaining to one specific target (McDonald's) is unlikely to be included in the representation formed of another specific target (Burger King) and is instead used as a standard of comparison (e.g., Schwarz & Bless, 1992a, 1992b; Stapel & Schwarz, 1998).

Finally, suppose that the judgment does not pertain to any particular fast food outlet but to the general category of "fast food restaurants." In this case, McDonald's is a subset of the general category, fast food restaurants, and information bearing on McDonald's is likely to be included in the representation formed of the superordinate category, resulting in assimilation effects (e.g., Schwarz & Bless, 1992a, 1992b; Stapel & Schwarz, 1998).

In summary, on one hand, information bearing on a target category (e.g., McDonald's) can be included in the representation formed of that target, as well as in the representation of superordinate target categories (e.g., fast food restaurants). These inclusion operations result in assimilation effects on judgments of the respective targets. On the other hand, information bearing on a target category (e.g., McDonald's) cannot be included in the representation formed of a lateral category (e.g., Burger King), simply because it is not a member of that category. Instead, the accessible information is likely to be used in constructing a standard of comparison, resulting in contrast effects. Accordingly, the categorical relation of different targets is one of the determinants of the use of accessible information and the emergence of assimilation and contrast effects (see Schwarz & Bless, 1992a). These general predictions have been supported across a range of judgment

topics, including politicians and the evaluation of their party (superordinate category) and peers (lateral category; e.g., Schwarz & Bless, 1992b; Stapel & Schwarz, 1998), or animals and judgments of the size of mammals (superordinate category), or other specific animals (lateral category; Winkielman & Schwarz, 1998).

### Affect as Information

Judgments are not always based on accessible attributes of the target. Instead, judges may simplify their task by drawing on their apparent affective reaction to the target according to a "how-do-I-feel-about-it?" heuristic (Schwarz & Clore, 1988). For example, Schwarz & Clore (1983) found that survey respondents in a positive mood reported more happiness and greater life satisfaction than did participants in a negative mood. This result occurred as long as people were not able to identify the source of their feelings. When respondents were able to attribute their mood to a particular source, the effects of mood on satisfaction ratings were diminished. Because it is difficult to distinguish one's affective reaction to the target from one's preexisting affective state, judges may misread positive (negative) mood states as a positive (negative) reaction to the target. This results in more positive evaluations when in a good rather than a bad mood, unless the informational value of the mood is called into question by misattribution manipulations (e.g., Schwarz & Clore, 1983; for reviews, see Schwarz, 1990; Schwarz & Clore, 1996).

To the extent that autobiographical recall elicits a pronounced mood state, the use of one's mood as a source of information may result in judgments that are distinctly different from judgments obtained on the basis of accessible attributes. For example, Strack et al. (1985; Experiment 1) asked participants to recall either a positive or negative event that happened to them either recently or several years ago. Not surprisingly, recalling a recent positive event resulted in reports of high life satisfaction, whereas recalling a recent negative event resulted in reports of low life satisfaction. These assimilation effects reflect that the recent events could be included in the representation formed of the target "my-life-now." However, this is not so when the events happened several years ago. These distant events pertained to a different period of participants' lives and served as a standard of comparison against which they evaluated their current situation. In this case, recalling a past positive event resulted in low current life satisfaction, whereas recalling a past negative event resulted in high current life satisfaction. Finally, other participants (Strack et al., 1985; Experiments 2 and 3) had to recall distant life events in a vivid and detailed manner, thus inducing a positive or negative mood. In this case, participants based their life-satisfaction judgments on their current mood and reported high life satisfaction when the recalled event was positive, but they reported low life satisfaction when the recalled event was negative, independent of the temporal distance of the event. Path analyses confirmed that

the impact of the recalled event was mediated by participants' mood when recall was vivid but by recalled content when recall was pallid. Clark and Collins (1993; Clark et al., 1994) and Tversky and Griffin (1991) reported conceptual replications of these diverging effects of accessible content and affect in different domains.

### Summary

In combination, the reviewed research suggests that recalling a specific experience with a specific service provider may influence subsequent judgments of this provider, a competitor, and the general provider category in different ways. When the experience is recounted in a pallid and uninvolved fashion—thus not affecting the person's mood—its impact should depend on the inclusion–exclusion operations discussed previously. When the experience is recalled in great episodic detail, however, it may induce a good or bad mood, and this feeling state should affect all subsequent judgments in a similar way. These studies were designed to test these predictions.

## STUDY 1: THE USE OF AFFECT AND BELIEFS IN SERVICE PROVIDER EVALUATIONS

Study 1 is a partial replication of Strack et al. (1985) in a consumer-satisfaction context. In this study, participants described either a positive or negative service encounter they had experienced and then rated their satisfaction with that particular service provider. In general, people should evaluate service providers where they had a positive experience more favorably than those where they had a negative experience. Describing the details of how the experience occurred, however, should bring to mind the affect associated with the event in addition to beliefs about the service provider. Therefore, we expect that the valence of the recalled experience will have a stronger influence on satisfaction judgments when people are asked to describe how an event occurred compared to when they are asked to provide reasons why it occurred:

- H1: The effects of the valence of the recalled experience on evaluation of a service provider will be stronger when people are asked to recount how an experience occurred versus giving reasons why the experience occurred.

Strack et al. (1985) suggested that episodically recounting an experience brings to mind associated feelings. Thus, after describing how a positive event occurred, people are in a more positive mood than when they are asked to describe how a negative event occurred. Because people use a "how-do-I-feel-about-it?" heuristic when making happiness and satisfaction judgments, the feelings associated with the recalled experience should serve as a direct input to service

provider ratings (Schwarz & Clore, 1983, 1988). In contrast, when the experience is analytically recounted, feelings are not a potential input to judgment, and, thus, mood will not mediate the influence of valence of the recalled experience on service provider ratings:

- H2: Mood ratings will mediate the effects of the valence of the recalled experience on evaluations of the service provider when people describe how the experience occurred but not when they give reasons why it occurred.

## Method

In this study, participants described a service encounter they had experienced and then rated their satisfaction with the service provider as well as their likelihood of using that service provider in the future. Two variables were manipulated. First, the recalled experience was either positive or negative (valence of recalled experience). Second, the way in which the experience was described varied (question type). One half of the participants were asked to describe how the experience occurred, whereas the remaining participants were asked to list reasons why the experience occurred. Crossing these two factors resulted in a  $2 \times 2$  between-subjects design.

**Participants.** A total of 52 marketing students (37 undergraduates and 15 MBA students) completed the study as a course requirement. The study was administered during class and took approximately 10 minutes to complete. Two participants were not able to recall a positive consumer experience and thus did not complete the study. One participant did not respond to all of the dependent measures. The results presented next are based on the responses of the remaining 49 participants.

**Procedure.** Participants completed a self-administered survey in which they were asked to describe a recent consumer event. A *consumer event* was defined as “experiences you may have had with a company’s sales representative, service representative, or a retailer.” As a cover story, participants were told that researchers were developing a questionnaire to assess consumer events in a systematic and reliable manner, and that to construct the questionnaire, it was necessary to collect a large sample of events (see Strack et al., 1985). On the first page of the questionnaire, participants were asked to write down one particularly positive and pleasant (or negative and unpleasant) consumer event that they had experienced in the recent past. Two blank lines were provided for their response. All participants recalled an experience with a service provider (rather than a specific product experience).

On the next page, participants were asked to describe this event in more detail. There were two versions of this question (from Strack et al., 1985):

**How condition:** Now, we would like for you to *describe in detail how the event occurred*. The goal is not to find out why this event happened, but rather *what happened* as the event occurred. Please do your best to describe *how* the event happened.

**Why condition:** Now we would like for you to *give three brief accounts of why this event might have occurred*. We are not interested in what happened as the event took place, but rather in *why* it happened. Please do your best to think about different reasons *why* this event might have happened.

In both versions, a full page (lined paper) was provided for the response. In the why condition, the lines were divided into three groups and numbered from 1 to 3.

After describing the event, participants rated their overall satisfaction with the service provider (satisfied–unsatisfied), the likelihood that they would do business with the service provider again, and the likelihood that they would recommend the service provider to a friend, all on 11-point scales ranging from 1 (*very unlikely*) to 11 (*very likely*).

The final page of the questionnaire obtained a rating of mood (“How do you feel right now?”) on a 7-point scale ranging from –3 (*bad*) to +3 (*good*), as well as the participant’s age, gender, and program (MBA or undergraduate).

## Results

The satisfaction scale and the two likelihood scales were summed to form an overall measure of attitude toward the service provider (Cronbach’s  $\alpha = .90$ ), which served as the dependent measure. On this scale, higher numbers indicate a more-favorable attitude toward the service provider.

H1 was tested using an analysis of variance (ANOVA) with valence of the recalled experience and question type as the independent variables. As expected, attitudes toward the service provider were more favorable when positive events were recalled ( $M = 27$ ) than when negative events were recalled ( $M = 10.6$ ), as indicated by a significant main effect of the valence of the recalled experience,  $F(1, 48) = 65.58, p < .01$ .

Also consistent with H1 is that attitudes toward the service provider are more extreme when participants describe how the experience occurred. The average satisfaction ratings as a function of the independent variables are shown in the top half of Table 1. The interaction between the Valence of the Recalled Experience  $\times$  Question Type is significant,  $F(1, 48) = 8.52, p < .01$ . The difference between mean positive and negative evaluations is greater when participants described how the event occurred ( $M$  difference = 22.9) than when they gave reasons why the event occurred ( $M$  difference = 10.8), although the simple effect of valence remains significant in both conditions,  $F(1, 22) = 97.15, p < .01$ , for the how conditions and  $F(1, 23) = 10.35, p < .01$ , for the why conditions. Furthermore,

TABLE 1  
Study 1: Mean Attitude Toward Service Provider and Mood as a  
Function of Valence of Experience and Question Type

Valence of Experience	Question Type			
	Why		How	
	M	SD	M	SD
Overall attitudes				
Positive	24.23	8.05	30.60	2.95
Negative	13.46	8.82	7.69	6.85
Mood ratings				
Positive	1.69	.75	1.70	1.16
Negative	1.15	1.14	-0.38	2.06

Note.  $n = 10$  to  $13$  per condition.

when a positive event is recalled, attitudes toward the service provider are more favorable after describing how versus why the event occurred,  $F(1, 22) = 5.62, p < .03$ . When a negative event is recalled, attitudes are less favorable after describing how versus why the event occurred, although this effect is only marginally significant,  $F(1, 25) = 3.47, p < .07$ .<sup>1</sup>

To test H2, the mood ratings were first analyzed using the same ANOVA model described previously. As shown in the bottom half of Table 1, participants report being in a more positive mood after they recalled a positive event ( $M = 1.70$ ) rather than a negative event ( $M = -0.38$ ),  $F(1, 48) = 10.93, p < .01$ , for the main effect. In addition, mood ratings are more positive when participants described why an event occurred ( $M = 1.42$ ) versus describing how ( $M = 0.52$ ),  $F(1, 48) = 3.72, p < .06$ , for the main effect.

These main effects are qualified by a significant interaction between the Valence of the Recalled Experience  $\times$  Question Type,  $F(1, 48) = 3.80, p < .06$ . Valence of the recalled experience affected mood ratings only in the how condition. Specifically, in the how condition, participants report being in a better mood after they described a positive rather than negative experience,  $F(1, 21) = 8.16, p < .01$ . In contrast, the valence of the recalled experience does not affect mood ratings in the why condition,  $p > .26$ . Thus, as expected, episodic recounting of an experience reinstated the feelings or mood associated with the experience, whereas analytic recounting of the experience did not.

H2 predicts that mood ratings mediate the effects of valence of the recalled experience on satisfaction judgments only in the how condition. Table 2 shows the results of path

analyses that were conducted to assess the mediating role of mood in the how and why conditions (see Baron & Kenny, 1986). Three regression equations were estimated separately in the how and why conditions. In both conditions, the results are as expected. In the how conditions, the valence of the recalled experience is a significant predictor of mood,  $\beta = 2.08, R^2 = .28, p < .01$ , and is also a significant predictor of overall satisfaction with the service provider,  $\beta = 22.9, R^2 = .28, p < .01$ . Finally, mood reduces the predictive ability of the valence of the recalled experience on overall satisfaction but not completely. Thus, consistent with H2, when events are episodically recounted, mood partially mediates the effects of valence of the recalled experience on overall satisfaction. The recalled experience directly affects satisfaction and indirectly affects satisfaction via mood.

Abstractly recounting an experience should not produce affect and, hence, mood should not play a role in satisfaction judgments. Again, consistent with H2, in the why condition, the valence of the recalled experience is not related to mood,  $p > .26$ . Therefore, when events were abstractly recounted, mood does not mediate the effect of valence of the recalled experience on overall satisfaction judgments.

## Discussion

The results of this study replicate the findings of Strack et al. (1985) in the context of consumer-satisfaction judgments. Episodic recounting of a recent consumer experience resulted in strong assimilation effects on subsequent satisfaction judgments, whereas analytic recounting resulted in weaker assimilation. In addition, mood ratings partially mediated the effects of valence of the recalled experience on satisfaction judgments when participants episodically recounted their experience, but not when they analytically recounted it. Therefore, the results provide further evidence that episodic recounting brings to mind not only beliefs about the service provider, but also reinstates the mood associated with the particular service encounter. Mood then serves as one input to a subsequent satisfaction judgment.

In this study, the attributes, as well as the affect, brought to mind by the recall task pertained to a specific experience with the service provider evaluated later on. Study 2 extends the exploration of these variables by assessing judgments of other targets—namely, a competitor of the service provider and the general category of service providers.

## STUDY 2: THE USE OF AFFECT AND BELIEFS IN COMPETITOR AND CATEGORY EVALUATIONS

As shown in Study 1, recalling an earlier service encounter can render accessible two kinds of information: (a) declarative information (e.g., beliefs about the target company) and

<sup>1</sup>An alternative explanation is that participants elaborated more (rather than differently) about the past experience in the how condition and thus weighted the experience more heavily in the overall satisfaction judgment. To examine this possibility, we created a measure of the degree of elaboration by counting the number of words in each participant's experience description. The total number of words in the protocol does not vary by question type,  $ps > .30$ , or by the valence of the recalled experience,  $ps > .99$ . In addition, when the number of words is entered into the analyses as a covariate, the covariate is not significant and the interactions remain significant.

TABLE 2  
Study 1: Results of Mediation Analysis

Question Type	Regression A <sup>a</sup>		Regression B <sup>b</sup>		Regression C <sup>c</sup>		
	Experience ( $\beta$ )	R <sup>2</sup>	Experience ( $\beta$ )	R <sup>2</sup>	Mood ( $\beta$ )	Experience ( $\beta$ )	R <sup>2</sup>
How	2.08**	0.28	22.91**	0.82	1.40*	20.00**	0.86
Why	0.44	0.05	11.06**	0.31	-0.50	11.29**	0.31

Note.  $\beta$ 's reported are unstandardized beta coefficients.

<sup>a</sup>Regress mood on experience. <sup>b</sup>Regress satisfaction on experience. <sup>c</sup>Regress satisfaction on mood and experience.

\* $\beta \neq 0, p < .05$ . \*\* $\beta \neq 0, p < .01$ .

(b) experiential information (e.g., feelings associated with the experience). The results of Study 1 suggest that episodically recounting an event (describing how it occurred) reinstates the affect associated with the experience, whereas analytically recounting an experience (providing reasons why it occurred) brings to mind beliefs about the service provider. Assimilation effects were stronger when the affect associated with the experience was accessible to respondents. In this study, we explore how these information sources affect judgments about a competitor of the service provider and the service category.

When a competitive company (Burger King) is being evaluated, beliefs about the focal service provider (McDonald's) will be excluded from the temporary representation of the competitive company and thus will serve as a standard of comparison against which the competitive company is evaluated. Affect, however, should generalize to all subsequent judgments. Therefore, the effects of the valence of the recalled experience on satisfaction ratings will depend on how the experience is recalled (what types of thoughts are brought to mind). When the experience is episodically recounted, affect is rendered accessible, and satisfaction ratings should be more favorable when a positive (vs. negative) experience is recalled. When the experience is analytically recounted, accessible beliefs about the focal company will serve as a standard of comparison in evaluating the competitive company. Therefore, satisfaction ratings for the competitive company should be less favorable when positive (vs. negative) beliefs about the focal company are rendered accessible (contrast effect). In other words:

H3: The mode of recalling a specific experience at a focal company will moderate the effects of valence of the recalled experience on subsequent evaluations of a competitive company in the following way: (a) Describing how a specific experience with the focal company occurred will result in more-favorable evaluations of a competitive company when a positive (vs. negative) experience is recalled, and (b) giving reasons why the experience occurred will result in less-favorable evaluations of a competitive company when a positive (vs. negative) experience is recalled.

Accessible mood should also be used as an input to a satisfaction judgment regarding the superordinate service category (fast food restaurants). Furthermore, because the focal company is subordinate to the service category (i.e., McDonald's is a fast food restaurant), accessible beliefs about the focal company will be used to construct a representation of the category and subsequent satisfaction judgment. Therefore, regardless of the way in which the autobiographical experience is recalled, judgments of the category should be more favorable when a positive (vs. negative) experience is rendered accessible:

H4: Regardless of how an experience with the focal company is recalled, evaluations of the service category should be more favorable when a positive experience is recalled than when a negative experience is recalled.

To summarize, the way in which an experience is recounted can affect the inputs rendered accessible. Episodically recounting an experience brings to mind the mood or feelings associated with the experience, whereas analytically recounting the experience brings to mind beliefs about the service provider. Furthermore, whereas accessible feelings should be used as an input to all subsequent satisfaction judgments, the use of accessible beliefs about the focal company will vary depending on the target judgment. Therefore, as in Study 1, affect should mediate satisfaction judgments when experiences are episodically recounted, but not when experiences are analytically recounted.

H5: Mood ratings will mediate the effects of the valence of the recalled experience on evaluations of a competitive company and the service category when people describe how the experience occurred, but not when they give reasons why it occurred.

## Method

The procedure used in this study was similar to that used in Study 1 except that in this study, participants described a specific experience they had had at a McDonald's restaurant, and then they rated their satisfaction with a competitive company

(Burger King) and the category (fast food restaurants). Three variables were manipulated. First, participants described either a specific positive or negative experience at McDonald's (valence of recalled experience). Second, we varied the way in which the experience was described (question type). Participants either described how the experience occurred, listed reasons why the experience occurred at McDonald's, or listed reasons why the experience would occur at fast food restaurants in general. There are no differences between the two why conditions on any of the dependent variables, so these conditions were collapsed in the analyses reported next. It appears that, regardless of the question used to elicit analytic reasoning, the beliefs rendered accessible were closely tied to McDonald's performance.

Finally, immediately after describing their experience, we obtained ratings of satisfaction with Burger King (competitive company) and fast food restaurants in general (category). The order in which these ratings were obtained was counter-balanced. Because there was some evidence that the order in which ratings were obtained affected the results, we treated judgment type as a between-subjects variable and considered the ratings only when placed first in the survey.

To summarize, three variables were manipulated: (a) valence of the recalled experience (positive or negative), (b) mode of recalling the experience (describe how or provide reasons why), and (c) target judgment (competitive company and category). Crossing these factors resulted in a  $2 \times 2 \times 2$  between-subjects design.

**Participants.** Questionnaires were distributed to 322 students at several universities and community colleges. The majority of questionnaires were administered during class. The survey took approximately 10 minutes to complete.

Participants were excluded from the final sample if they had not eaten at a McDonald's in the last 12 months (54 people) or if they could not recall a specific experience (57 people). In addition, 4 participants did not complete all of the dependent measures. The results presented next are based on the responses of the remaining 207 participants.

One concern is that some aspect of the recall task would result in differential mortality across conditions. The overall response rate did not vary across valence or recall conditions,  $p > .10$ . Furthermore, a test for differential mortality indicated no difference in ability to recall an experience across valence conditions,  $\chi^2(1, N = 207) = 1.24, p > .10$ .

**Questionnaire and procedure.** Participants completed a self-administered survey about fast food restaurants. A pretest ( $n = 33$ ) suggested that a high percentage of students had visited McDonald's and Burger King in the past 12 months (85% and 73%, respectively). In addition, 67% of the pretest respondents were able to recall both positive and negative experiences they had had at McDonald's. Based on these results, fast food restaurants were selected as the category, with McDonald's being the focal company and Burger King as the competitive company.

On the first page of the questionnaire, participants were asked if they had visited a McDonald's in the last 12 months. If they had visited a McDonald's in the past 12 months, they were asked to write down one particularly positive and pleasant (or negative and unpleasant) experience they had had there.<sup>2</sup> Two blank lines were provided for their response.

On the next page, respondents were asked to describe this event in more detail. There were three versions of this question (adapted from Strack et al., 1985):

**How condition:** Now, we would like for you to *describe in detail how this specific event occurred*. We are not interested in why the event occurred, but rather **what happened** as the event took place. Who did what to whom? What was it like? What thoughts went through your mind? How did it make you feel? Please take a minute to recall the details and do your best to describe **how** the event occurred.

**Why conditions (2 versions):** Now we would like for you to give three brief accounts of **why** this specific event might have occurred at McDonald's (events like this might occur at fast food restaurants). We are not particularly interested in what happened when the event took place, but rather in your explanation for why this particular event (events of this type) occur. Please do your best to think about different reasons **why** this happened at McDonald's (events like this happen at fast food restaurants).

In both versions, a full page (lined paper) was provided for the answer. In the why conditions, the lines were divided into three groups and numbered from 1 to 3.

After describing the event, respondents rated their overall satisfaction with Burger King and fast food restaurants in general ("Overall how do you feel about \_\_\_\_"), on an 11-point scale ranging from 1 (*very dissatisfied*) to 11 (*very satisfied*).

The final page of the questionnaire obtained a rating of mood (as measured in Study 1), as well as age, gender, and the rate of visiting McDonald's and Burger King in a 3-month period.

## Results

An analysis of covariance (ANCOVA) model was run, with the satisfaction rating as the dependent variable and valence of the recalled experience (positive vs. negative), question type (how vs. why), and target of judgment (competitive company vs. category) as the independent variables. In all of the analyses, the rate of eating at fast food restaurants (the number of visits to McDonald's and Burger King in a

<sup>2</sup>As in Study 1, we wanted to make sure that the recalled experience was a recent one because a more distant experience could be used as a standard of comparison (Schwarz, Wanke, & Bless, 1994).

TABLE 3  
Study 2: Mean Satisfaction Ratings as a Function of Valence of Experience and Question Type

Satisfaction Judgments	Question Type							
	How				Why			
	Positive		Negative		Positive		Negative	
	M	SD	M	SD	M <sup>a</sup>	SD	M <sup>a</sup>	SD
Competitive company (Burger King)	7.75	2.57	5.78	2.46	6.10	2.71	6.51	2.23
	n = 20		n = 18		n = 30		n = 39	
Category (fast food restaurants)	7.20	2.70	6.38	1.63	6.29	2.16	6.74	2.05
	n = 15		n = 16		n = 35		n = 39	

<sup>a</sup>These means represent the combined why conditions, which resulted in larger sample sizes in these cells.

3-month period) was used as a covariate. In the complete model, the Valence  $\times$  Question Type  $\times$  Target Judgment interaction was not significant,  $p > .31$ . We tested the hypotheses by looking at the effects of valence and question type separately for each of the target judgments.

**Hypothesis 3: Satisfaction with competitive company.** Table 3 shows the mean satisfaction ratings for Burger King and fast food restaurants as a function of question type and valence of the recalled experience. H3a suggests that recalling an experience about a focal company should result in assimilation effects on satisfaction ratings of a competitive company when the experience is episodically recounted (how condition), whereas H3b predicts contrast effects will occur when the experience is analytically recounted (why condition). The results, shown in Table 3, are generally consistent with these predictions.

As expected, for Burger King satisfaction ratings, the Valence of the Recalled Experience  $\times$  Question Type interaction is significant,  $F(1, 102) = 7.17, p < .01$ . Consistent with H3a, in the how condition, satisfaction with Burger King is more favorable when a positive experience was recalled,  $F(1, 35) = 5.51, p < .02$ . In the why condition, mean satisfaction ratings are less favorable when a positive experience was recalled, although this difference is not significant,  $p > .24$ . In other words, in the why condition, assimilation did not occur and the results are in the direction of a contrast effect.

One possible explanation for the lack of a significant contrast effect is variability in the kinds of reasons that respondents generated.<sup>3</sup> In particular, we might expect the contrast effect to emerge for those individuals who easily generated reasons in which the experience was attributed directly to the focal restaurant (McDonald's) versus other factors. In this case, the reasons generated would provide a standard against which the competitive company (Burger King) could be evaluated. If the reasons are of a more general nature, and likely to pertain to all fast food restaurants, contrast effects may be unlikely to emerge.

We examined this possibility by coding the extent to which the first (and most accessible) reason generated attributed the experience to a factor under McDonald's direct control versus a factor external to McDonald's control. Using only the first reason allowed us to control for the number of reasons generated. A person blind to the experimental hypotheses coded the reason on a 3-point scale ranging from 1 (*not under McDonald's control*), such as "I was very hungry that day"; 2 (*partially under McDonald's control*), such as "McDonald's attracts a young crowd"; and 3 (*directly under McDonald's control*), such as "the workers were poorly trained." A second person also coded the reasons. Agreement was 70%, and discrepancies were resolved by one of the authors. We took a median split of the reasons score ( $Mdn = 2$ ) to divide participants into two groups.

When the first reason was weakly attributed to McDonald's, satisfaction with Burger King did not vary by the valence of the recalled experience,  $p > .94$ . When the first reason generated was strongly attributed to McDonald's, satisfaction with Burger King was higher when a negative experience was recalled ( $M = 6.53$ ) than when a positive experience was recalled ( $M = 5.32$ ). This contrast effect is significant,  $F(1, 43) = 2.92, p < .05$ , one-tailed.

#### **Hypothesis 4: Satisfaction with the service category.**

H4 predicts that regardless of the way in which an experience is recounted, satisfaction with the service category will be more favorable when a positive experience is recalled. Therefore, we expected a significant main effect of valence of the recalled experience. This main effect is not significant,  $p > .91$ , and neither are any other main effects or interactions. Thus, H4 is not supported.

**Hypothesis 5: Mediating effect of mood.** We analyzed the mood ratings using an ANCOVA with valence of the recalled experience, question type, and target judgment as the independent variables and the rate of eating at Burger King as the covariate. We expected that when participants were asked to episodically recount an experience, mood ratings would be more favorable when a positive experience (vs.

<sup>3</sup>We thank an anonymous reviewer for this suggestion.



a negative experience) was recalled. When participants were asked to give reasons why the experience occurred, we did not expect mood to vary with the valence of the recalled experience. In other words, we predicted a significant interaction between Valence of the Recalled Experience  $\times$  Question Type. This interaction is significant,  $F(1, 198) = 5.69, p < .02$ . No other effects are significant.

We followed up this significant interaction by examining the simple effect of valence within each question-type condition. In the how condition, mood ratings are more positive when a positive experience was recalled ( $M = 1.33$ ) than when a negative experience was recalled ( $M = 0.88$ ), although this difference is not significant,  $p > .17$ . In the why condition, we did not expect the mood ratings to vary significantly. In fact, in the why condition, reported mood is significantly more positive when a negative experience was recalled ( $M =$  positive: 1.03 vs. negative: 1.56),  $F(1, 134) = 4.70, p < .03$ . Possibly, analytically recalling a negative experience reminded people of how McDonald's resolved the problem. Thus, whereas the beliefs rendered accessible are generally negative, this cognitive appraisal might result in emotional responses that are generally positive (Oliver, 1997).

Finally, we ran the same mediation analyses as were run for Study 1 separately for Burger King and fast food restaurants. The results are shown in Table 4. For Burger King, the valence of the recalled experience was a marginally significant predictor of mood in both question type conditions (Regression A). In addition, valence of the recalled experience was a significant predictor of satisfaction with Burger King, but only in the how condition (Regression B). Therefore, as in Study 1, when experiences are episodically recounted, the valence of the recalled experience is related to both mood ratings (marginally) and satisfaction with a competitive company. The results of Regression C, however, indicate that mood does not mediate the effects of valence of the recalled experience on satisfaction ratings in the how condition. Thus, H5 is not supported. Not surprisingly, for category ratings, valence of the recalled experience did not influence mood or satisfaction judgments.

## Discussion

The results of Study 2 extend the findings of Study 1 to judgments of a competitive company. Most important, affect rendered accessible by recalling an experience at the focal company resulted in assimilation effects on satisfaction ratings with the competitive company, whereas rendering beliefs about the focal company accessible resulted in effects in the direction of contrast for judgments of the competitive company. The contrast effect was stronger to the extent that the most accessible reason generated was related directly to McDonald's performance during the service encounter.

We did not observe the expected mediating effect of mood on satisfaction judgments when experiences were recalled episodically. Possibly, the consumer's objective when visiting the fast food restaurant may have influenced the level of the affective response associated with the experience and hence the mediating effect of mood on judgment (Millar & Tesser, 1986). Specifically, we might expect the mediating effect of mood on satisfaction ratings to be stronger for individuals with consummatory goals (e.g., those who enjoy the taste of fast food) versus those with more instrumental goals (e.g., to be served quickly). Although we lack the data to test this possibility, it is likely that many people visit fast food restaurants with the primary goal of obtaining fast service. In contrast, the experiences that were recalled in Study 1 tended to be more personally significant and emotionally driven (e.g., an automobile purchase).

Finally, contrary to expectations, recalling an experience with a particular service provider did not influence satisfaction with the service category. Schwarz and Bless (1992a) suggested that the size of assimilation effects may depend on the amount of competing information available about the target category. The fast food restaurant category is quite broad, so this might account for the failure to support H4. In Study 3, we examine this possibility using a more controlled experimental setting and a narrower service category. Specifically, we examine the use of accessible beliefs about a focal company on judgments of the focal company, a competitive company, and the category. We expect to observe assimilation

TABLE 4  
Study 2: Results of Mediation Analysis

Target Judgment	Regression A <sup>a</sup>		Regression B <sup>b</sup>		Regression C <sup>c</sup>		
	Experience ( $\beta$ )	R <sup>2</sup>	Experience ( $\beta$ )	R <sup>2</sup>	Mood ( $\beta$ )	Experience ( $\beta$ )	R <sup>2</sup>
Burger King							
How	0.89*	0.09	2.02***	0.15	0.02	2.10**	0.16
Why	-0.61*	0.05	-0.41	0.01	0.04	-0.39	0.01
Fast food restaurants							
How	0.06	0.00	0.94	0.05	0.74**	0.78	0.19
Why	-0.57	0.02	-0.45	0.01	-0.02	-0.46	0.01

Note.  $\beta$ 's reported are unstandardized beta coefficients.

<sup>a</sup>regress mood on experience. <sup>b</sup>regress satisfaction on experience. <sup>c</sup>regress satisfaction on mood and experience.

\* $\beta \neq 0, p < .10$ . \*\* $\beta \neq 0, p < .05$ . \*\*\* $\beta \neq 0, p < .01$ .

effects of beliefs on judgments of the focal company and the category, and contrast effects on judgments of the competitive company.

### STUDY 3: THE USE OF BELIEFS IN COMPANY, COMPETITOR, AND CATEGORY EVALUATIONS

In this study, participants read about another person's experience at a casual sit-down restaurant; provided three reasons why this experience occurred; and then rated their satisfaction with the focal company, a competitive company, and the category. Thus, we were able to test the idea that priming beliefs about the focal company results in assimilation effects on satisfaction ratings of the focal company and the category, and contrast effects on satisfaction ratings for a competitor.

#### Method

Participants read a description of an individual's experience at a specific casual sit-down restaurant (Bennigan's). A pre-test ( $n = 18$ ) suggested that a large percentage (approximately 94%) of the sample population (students) had visited a casual sit-down restaurant in the past 12 months. Based on this pre-test, Bennigan's and Houlihan's were selected as the focal and competitive company, respectively. Neither of these firms dominate the category, yet many students had experience with them, and perceptions were similar.

Prior to reading the scenario, participants were provided with the following instructions:

We are interested in how people evaluate the services provided by casual sit-down restaurants, such as Bennigan's, TGI Friday's, Houlihan's, and Chili's. This study is part of an ongoing research project, in which we have interviewed approximately 200 consumers like you. We have asked these people to describe several experiences they have had at casual sit-down restaurants. Thus, we have developed an extensive collection of specific experiences that people have had at these types of restaurants. In this study, you will be helping us by reading and evaluating *one* of these experiences, which will be *randomly selected* from the experiences described by previous study participants. In addition, you will be answering some general questions about your perceptions of casual sit-down restaurants.

As they read the experience, participants were instructed to "*think about why this particular experience occurred. Take a minute to think about this episode. Why do you think these events occurred? As you read the experience, try to understand why things happened the way they did at this particular restaurant.*" The described experience was either positive or negative. The exact wording of the scenario is given in the Appendix.

After reading the scenario, participants were asked to provide three reasons why they thought the experience occurred at Bennigan's. The instructions used for this question were similar to those used in the why condition in Study 2.

Next, participants rated their satisfaction with the target restaurant (Bennigan's), the competitive restaurant (Houlihan's), and casual sit-down restaurants overall. We used the same 11-point scale that was used in Study 2. We varied the order in which the restaurants were evaluated, but this manipulation did not affect the results and will not be discussed further. Finally, participants completed questions assessing their mood and their familiarity with, and frequency of, visiting several casual sit-down restaurants.<sup>4</sup>

A total of 69 students (undergraduates and MBAs) completed the study either as part of a class requirement or for a possible \$50 cash drawing prize. Twenty-eight students had never visited one of the casual sit-down restaurants to be evaluated or did not rate their satisfaction with one of the restaurants, and, thus, their responses were dropped from the analyses. Participants were thoroughly debriefed at the end of the study.

#### Results and Discussion

A repeated measures ANOVA model was run, with satisfaction ratings for the focal company (Bennigan's), the competitive company (Houlihan's), and the category (casual sit-down restaurants) as the dependent measures and valence of the described experience and question order as the between-subjects independent variables. We expected that although ratings for the focal company and the category would show assimilation to the described experience, ratings of the competitive company would show contrast. This result is indicated by a significant Target  $\times$  Valence of Experience interaction,  $F(2, 74) = 4.58, p < .01$ . There is also a significant main effect of the valence of the recalled experience,  $F(1, 37) = 8.45, p < .01$ . No other effects are significant.

The mean satisfaction ratings by valence condition are shown in Table 5. As expected, ratings of the focal restaurant and the category are more favorable when participants read about a positive experience: focal company,  $F(1, 37) = 16.58, p < .01$ , and category,  $F(1, 38) = 4.05, p < .05$ . For the competitive company, satisfaction ratings do not vary with the valence of the described experience,  $p > .39$ . Thus, although we expected a significant contrast effect, the valence of the described experience did not affect satisfaction ratings of the competitive company. As expected, accessible beliefs resulted in assimilation effects for the category (H4) but not for evaluations of a competitive company.

We coded the extent to which the first reason generated was attributed to factors directly under Bennigan's control

<sup>4</sup>There are no significant effects of the valence of the described experience on mood ratings,  $p > .84$ , as would be expected when an experience is analytically recounted.

TABLE 5  
Study 3: Mean Satisfaction Ratings as a Function of Valence of Experience

Satisfaction Judgments	Valence of Experience			
	Positive <sup>a</sup>		Negative <sup>b</sup>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Focal company (Bennigan's)	8.42	1.50	6.23	1.85
Competitive company (Houlihan's)	7.47	1.74	7.05	1.73
Category (casual sit-down restaurants)	8.21	1.84	7.05	1.70

<sup>a</sup>*n* = 19. <sup>b</sup>*n* = 22.

versus attributed to other causes, using the same scale as in Study 2. Again, we used a median split to divide the participants into two groups ( $Mdn = 2$ ). For participants with weak reasons, ratings of the competitive company are nonsignificantly higher in the positive condition ( $M = 7.58$ ) than in the negative condition ( $M = 6.90$ ). For participants with reasons strongly attributed to the focal restaurant, the mean satisfaction ratings with the competitive company are in the direction of contrast, although the difference is not significant ( $M = \text{negative: } 7.29$  vs. positive:  $6.93$ ),  $p > .65$ . It appears that many of the participants did not differentiate clearly between restaurants of this type. Respondents who were less familiar with the restaurants, or who see the category as being not very differentiated, may be less likely to use beliefs about Bennigan's as a standard in judging the competitive restaurant.

Note that when a positive experience was described, ratings of the focal company are higher than those of the competitive company,  $F(1, 17) = 4.75$ ,  $p < .04$ , whereas when the described experience was negative, ratings of the focal company are lower than those of the competitive company,  $F(1, 20) = 3.92$ ,  $p < .06$ . In other words, analytically recounting beliefs about the focal restaurant resulted in a different satisfaction ranking of the two restaurants, depending on the valence of the described experience. The difference in this ranking was attributable to changes in the ratings of the focal restaurant.

## GENERAL DISCUSSION

There are several important findings in the studies reported here. First, recalling an experience with a service provider does affect satisfaction ratings, both for the focal company and for competitive companies. More important, in some cases, satisfaction judgments are assimilated toward the content of the recalled experience, whereas in other situations, effects in the direction of contrast occur. Specifically, accessible affect generalizes to satisfaction judgments about both the focal company and the competitive company, whereas accessible beliefs appear to be used to construct a representation of the focal company (resulting in assimilation) and as a standard of comparison in evaluating a competitive company. The contrast effect on competitor ratings appears to be stron-

ger when thinking about the experience generates beliefs about the performance of the service provider, versus more general beliefs about why the experience may have occurred. In both Studies 2 and 3, we find effects in the direction of contrast when we control for the extent to which the first reason attributes the problem to the focal company. Using the method of adding weighted *Z*s (Rosenthal, 1978), this effect is significant across studies,  $Z = 1.71$ ,  $p < .05$ . These results are consistent with Schwarz and Bless's (1992a) inclusion-exclusion model.

This research holds implications for our understanding of how consumers evaluate satisfaction. Momentary influences, such as a respondent's mood, appear to have a much stronger effect on such judgments than is typically assumed. Because respondents have a hard time detecting the source of their feelings, they are likely to use the "how-do-I-feel-about-it?" heuristic when answering a satisfaction question. In future research it may be important to distinguish the type of affect brought to mind by recalling the experience (Oliver, 1997). Episodic recounting may bring to mind more basic affective responses. In this case, the source of the affective response is difficult to determine, and, thus, mood is likely to be used as an input to any subsequent satisfaction judgment. In contrast, analytic recounting may result in what Oliver referred to as cognitive appraisal with an affective label. Because affect is appraised, the source of the affect is known, and the affective response may not generalize to unrelated satisfaction judgments.

Consistent with earlier research (e.g., Strack et al., 1985; Tversky & Griffin, 1991), our results also suggest that past experiences can be used as both an input to judgment (satisfaction with the focal company) and a standard of comparison (satisfaction with the competitive company). An important question for future research involves identifying the factors that determine how accessible information is used in constructing a subsequent evaluation. For example, in the situation described here, making salient the typicality of the recalled experience (perhaps by having respondents rate the experience on this dimension) could change the way in which the information is used, with overall ratings assimilated toward typical experiences and contrasted against atypical experiences. Likewise, making the time period of the recalled event salient could lead to both assimilation and contrast effects on satisfaction ratings for the focal company (Schwarz, Wanke, & Bless, 1994; Strack et al., 1985). Finally, future research should examine the

role of category structure in moderating assimilation and contrast effects on satisfaction judgments. For example, we might expect stronger contrast effects on competitor judgments when category members are more clearly differentiated.

From a practical perspective, the results suggest that when measuring customer satisfaction, care must be taken in how experiences with the service provider are queried prior to an overall evaluation. Our results suggest that different types of introspection about an experience lead to varying effects on satisfaction judgments (see also Krishnamurthy & Sujan, 1999). Therefore, the extent to which satisfaction judgments predict behavior could be affected by recalling and introspecting about a previous service encounter. This idea is consistent with research by Wilson and his colleagues (Wilson & Dunn, 1986; Wilson, Dunn, Kraft, & Lisle, 1989; Wilson, Hodges, & LaFleur, 1995), who showed that having people analyze reasons for their attitudes reduces the consistency between attitudes and behavior. Furthermore, analyzing reasons results in lower quality decisions (Wilson & Schooler, 1991) and less satisfaction with decisions (Wilson et al., 1993). Levine, Halberstadt, and Goldstone (1996) showed that analyzing reasons leads to the use of a more variable and inconsistent attribute weighting scheme when constructing attitudes. Because introspection about reasons can potentially lead to changed attitudes that are not necessarily predictive of future behavior, satisfaction researchers may want to have respondents evaluate specific service encounters after obtaining overall measures of satisfaction and service quality.

Furthermore, to assess customer value, it may be necessary to obtain measures of satisfaction with multiple service providers (Gale, 1994). In this case, it is important to recognize that affect associated with an experience recalled about one firm may influence ratings of competitive firms. Finally, different forms of rating scales may be more likely to evoke episodic versus analytic recounting. For example, asking respondents whether specific incidents occurred might invoke episodic recounting, whereas evaluating the service received during a particular encounter might invoke abstract recounting. Likewise, follow-up questions (e.g., those asking respondents to provide the causes of a behavior or how an experience was resolved) may invoke causal reasoning. The beliefs rendered accessible by such questions may influence how people evaluate both the focal and competitive firms.

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## APPENDIX

### Scenarios Used in Study 3

Positive condition (*italics*) and negative condition (*parentheses*)  
 I visited *Bennigan's* with a group of five friends on a Thursday night to celebrate my best friend's birthday. When we arrived at around 7:30 pm, the restaurant was very busy. We were told that there was a 20-minute wait for a table, *but we were seated after only 10 minutes* (but we were seated after about 40 minutes). Our server approached the table *within a few minutes* (after about 15 minutes) and took our beverage and appetizer orders. The menu is really extensive, so I had a hard time deciding on an entrée. I finally decided on the grilled salmon. After placing our dinner order, we waited about 20 (40) minutes for the entrées. The salmon was *hot* (cold) when it was served and it was *perfectly cooked* (over-cooked). After finishing our dinners, my friends and I decided to share a dessert. We ordered coffee and a piece of ice cream pie with caramel, chocolate, and nuts. *The ice cream pie was really decadent.* (They were out of the ice cream pie, so we settled for apple pie.) The server brought the bill *promptly and we were able to split the payment across several credit cards* (but grumbled when we asked if we could split the payment across several credit cards). After settling the check, we stayed at the table for awhile. During this time, the server *continued to* (did not offer to) refill our coffee.