

# Representativeness, Relevance, and the Use of Feelings in Decision Making

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It has been suggested that evaluations may be based on a "How-do-I-feel-about-it?" heuristic, which involves holding a representation of the target in mind and inspecting feelings that this representation may elicit. Previous studies have shown that reliance on such feelings depends on whether or not they are believed to be representative of the target. This article argues that reliance on feelings also depends on whether feelings toward the target are regarded as relevant. Consistent with this thesis, findings from three experiments indicate that reliance on the "How-do-I-feel-about-it?" heuristic is more likely when the decision maker has consummatory as opposed to instrumental motives. Results also suggest that subtle feelings toward the target are indeed instantiated in the process, and that the process may be more likely among individuals with a propensity to process information in a visual and sensory manner.

Although it is now well accepted that moods, feelings, and emotions are an important aspect of consumer behavior (see, e.g., Cohen and Areni 1991; Derbaix and Pham 1991; Havlena and Holbrook 1986), the literature remains largely silent about how affect operates in consumer decision making (Bettman 1993). When affect is considered, as in studies on mood effects (e.g., Gardner 1985; Kahn and Isen 1993), it is generally as a background variable shown to have a contextual influence on judgments. However, recent developments in social psychology suggest that affect may play a more central role in the decision-making process than previously recognized. Work by Schwarz and Clore (1983, 1988) shows that affect may be used as a source of information in evaluative judgments (see also Wyer and Carlston 1979). According to the "affect-as-information" model (Schwarz and Clore 1983, 1988), people may evaluate targets by holding the target's representation in their minds and asking themselves, "How do I feel about it?" This article further examines the processing characteristics of this heuristic and identifies a critical determinant of people's reliance on feelings in decision making.

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## FEELING LIKE CONSUMING

### Processes of Evaluation

Consumer researchers often represent decision making as a process of accessing and combining attribute information about different alternatives. A significant part of the consumer decision-making literature has focused on the different rules (e.g., lexicographic vs. linear-compensatory) that consumers use to combine attributes of a particular alternative or to compare attributes across alternatives (see Bettman, Johnson, and Payne [1991] for a review). In this stream of research, the overall evaluation of each alternative is considered the product of some attribute-based computation varying in degrees of complexity (cf. Fishbein and Ajzen 1975). Other research shows that consumers may sometimes rely on previously formed evaluations stored in memory (see, e.g., Lingle and Ostrom 1979; Lynch, Marmorstein, and Weigold 1988), a process called affect-referral (Wright 1975).

Building on an earlier discussion by Wyer and Carlston (1979), Schwarz and Clore (1983, 1988) identified yet another process of evaluation. This process is based on the notion that feelings are sources of information (see, e.g., Frijda 1986; Schwarz 1990). Rather than computing evaluations from the target's attributes, people may rely on the feelings experienced as they hold the target's representation in their minds. For instance, to decide whether she should go clothes shopping in the mall this afternoon, a consumer may hold a representation of this episode in her mind and "see how it feels." Positive feelings would then lead to a favorable evaluation of the episode, whereas negative feelings would lead to an unfavorable evaluation. Schwarz and Clore (1988) call this process the "How-do-I-feel-about-it?" heuristic (hereafter HDIF heuristic).

A number of studies have documented the operation of this heuristic in evaluative judgments (see, e.g., Gorn, Goldberg, and Basu 1993; Johnson and Tversky 1983; Keltner, Locke, and Audrain 1993; Schwarz and Clore 1983; Strack, Schwarz, and Gschneidinger 1985). In the typical study, subjects are asked to perform evaluative judgments after having been induced into a positive or negative mood by a supposedly unrelated task. It is observed that when the actual source of their preexisting moods is not made salient, subjects' judgments tend to be evaluatively consistent with their preexisting moods. Presumably, this is because subjects seek to inspect their affective responses to the target, but fail to realize that their feelings are influenced by their preexisting mood states. Consistent with this explanation, it is generally found that the preexisting moods cease to influence judgments when the actual source the mood states is made salient. This interaction supports the idea that feelings are used because of their information value and cease to be used if their information value has been discredited.

Nevertheless, several issues need to be addressed to understand the role of the HDIF heuristic in consumer decision making. First, the processing characteristics of this heuristic need to be further examined. More important, the conditions under which this heuristic is used in decision making need to be clarified.

### Target Representation and Thought-Induced Feelings

According to the HDIF heuristic, if the target is not present in the direct physical environment, people may still perform their evaluations by examining their affective responses to a mental representation of the target. The nature of this representation is important for consumer research because much of consumer decision making is not stimulus based (e.g., deciding from home where to have dinner tonight). Strack (1992) suggests that experiential strategies such as the HDIF heuristic tend to involve more concrete and perceptually rich representations than do attribute-based strategies, which tend to involve more abstract representations (see also Epstein 1990). Few empirical studies, however, have sought to document the nature of target representations in the HDIF heuristic. One exception is the series of studies by Strack et al. (1985). These studies indicate that in judgments of life satisfaction, people invoke the hedonic quality of personal experiences brought to mind only to the extent that these experiences are vivid and concrete rather than pallid and abstract. Therefore, the HDIF heuristic may differ from other processes of evaluation not only in terms of the information role that feelings play, but also in terms of the representations that are used to recruit these feelings. This issue is examined in experiment 1.

A critical premise of the affect-as-information model is that when people inspect their feelings to evaluate targets, it is not to inspect their mood states *per se*, but to inspect their feelings in response to the target. However,

studies in the affect-as-information paradigm usually manipulate feelings toward the target by varying subjects' preexisting moods. It is therefore important to examine how feelings toward the target are assessed in the absence of pronounced preexisting mood states. It is also important to demonstrate that feelings are actually experienced as people hold the target's representation in their minds. Because of their presumable subtlety, these feeling responses are indeed difficult to identify through direct assessment. Validation of the HDIF heuristic requires that we establish that (1) in the HDIF process, feelings toward the target's representation are indeed instantiated, and (2) it is these subtle feelings that individuals seek to incorporate into their evaluations, not their mood states. To return to our earlier example, one should show that if the consumer decides not to go to the mall this afternoon, it is because the thought of going to the mall makes her feel unpleasant, not because she happens to be in a bad mood. This issue is examined in experiment 3.

### Representativeness versus Relevance and Concern for Affect

Existing evidence suggests that for feelings to influence the evaluation of a target, they must be perceived as genuine affective responses to this target. In other words, the feelings must be regarded as representative of the target (see, e.g., Strack 1992). In studies on the HDIF heuristic, the representativeness of the feelings, with regard to the target, is usually manipulated by varying how salient it is that something other than the target may be responsible for the feeling experience (see, e.g., Gorn et al. 1993; Schwarz and Clore 1983). When the external cause is made salient, it is generally found that subjects' feelings no longer influence their evaluations of the target, presumably because the feelings' representativeness has been discredited. The moderating role of representativeness is evident in a recent series of studies by Keltner et al. (1993). In one study, postexam feelings that were interpreted as responses to "things in general" tended to depress ratings of personal satisfaction but not ratings of academic satisfaction. However, if they were interpreted as reactions to the exam itself, the same feelings tended to depress ratings of academic satisfaction but not ratings of general personal satisfaction. Thus, the influence of feelings on judgments depended on whether these feelings were attributed to the target; that is, whether they were perceived to be representative of the target.

Assuming that the feelings are indeed attributed to the target, a second type of consideration will determine whether they will be used in an evaluation. Feelings toward the target must be regarded as relevant for its evaluation. Returning to our example, although the consumer may experience unpleasant feelings at the thought of going to the mall, she may still decide to go if, for instance, she has promised to take her children there. Given her commitment, she would probably not consider her feelings toward this episode relevant for its evaluation. Con-

ceptually, the perceived relevance of feelings toward the target should be high when individuals are primarily concerned about their affective experience with the target. Therefore, the propensity to rely on the HDIF heuristic should depend on people's concern for affect while constructing their evaluation.

In consumer research, this concern will depend, notably, on the type of motive underlying the consumption behavior. Two types of consumption motives can indeed be contrasted (see, e.g., Alderson 1957). Consummatory motives underlie consumption behaviors that are intrinsically rewarding (e.g., reading a novel for pleasure), whereas instrumental motives underlie consumption behaviors that are seldom rewarding in themselves and are undertaken to achieve some other goals (e.g., reading a tax manual to prepare a tax return).<sup>1</sup> When consumers' motives are consummatory, affective considerations should be more important determinants of their behavior than when their motives are instrumental (Holbrook and Hirschman 1982; see also Millar and Tesser 1986). Hence, feelings toward a target should be perceived as more relevant when the target is evaluated for consummatory reasons than when it is evaluated for instrumental reasons. A central prediction of this article is therefore that consumers will be more likely to rely on the HDIF heuristic when they have consummatory motives than when they have instrumental motives.

In summary, it has been suggested that instead of relying on attribute-based computations, people may perform evaluations by holding a representation of the target in mind and inspect how they feel about it (see, e.g., Schwarz and Clore 1983, 1988). However, several issues need to be addressed to determine the role of this heuristic in consumer decision making. First, its processing characteristics—the nature of the target's representation and whether feelings toward the target are indeed instantiated and inspected—need to be further examined. Second, the determinants of the heuristic's use need to be further specified. Although previous research has shown that people's reliance on feelings depends on whether the feelings are perceived to be representative of the target, this article argues that it also depends on the relevance of the feelings and people's concern for affect. In consumer behavior, this concern, and people's reliance on the HDIF heuristic, will be higher when consumers have consummatory motives than when they have instrumental motives.

## EXPERIMENT 1

This experiment examines how consumers rely on the HDIF heuristic in the context of a decision about a consumption episode (going to a movie). The primary objective is to test the prediction that even if feelings are re-

garded as representative of the target episode, consumers will only use these feelings when they regard them as relevant to the decision. The secondary objective is to explore how reliance on this heuristic is related to consumers' imagery abilities.

Subjects were induced to be in a positive or a negative mood through a supposedly unrelated task and were then asked to assess the likelihood that they would be going to a movie over the following weekend. Unlike previous studies on affect as information (e.g., Gorn et al. 1993; Schwarz and Clore 1983), it was never made salient to subjects that their evaluation of the target episode could be affected by their preexisting mood. That is, none of the conditions gave subjects a reason to question the representativeness of feelings toward the target. However, the perceived relevance of feelings toward the target was manipulated by modifying subjects' motive for going to the movie. Half the subjects were assigned a consummatory motive. These subjects were expected to be primarily concerned with their affective experience and, consequently, find feelings toward the target very relevant. The other half of the subjects were assigned an instrumental motive. These subjects were expected to be much less concerned with their affective experience and thus find feelings toward the target less relevant.

Theoretically, picturing a consumption episode in one's mind should feel more pleasant if one is in a positive mood than if one is in a negative mood. Therefore, it was predicted that behavioral intentions toward the movie episode would be more favorable in the positive preexisting mood condition than in the negative preexisting mood condition. However, it was further predicted that this effect would be moderated by the perceived relevance of feelings toward the episode. Specifically, preexisting mood should have a stronger influence on subjects with a consummatory motive (and a greater concern for affect) than on subjects with an instrumental motive (and a lesser concern for affect).

**H1:** The effect of preexisting mood on the decision outcome will be moderated by the decision motive. Among subjects that have a consummatory motive, a positive preexisting mood will result in more favorable intentions than subjects having a negative preexisting mood. Among subjects with an instrumental motive, preexisting mood will have little effect on behavioral intentions.

According to Strack (1992), experiential judgmental strategies may involve concrete and holistic representations of the target. Reliance on the HDIF heuristic in decision making may therefore depend on consumers' imagery proclivities. It has been suggested that this proclivity can be determined through the Style of Processing Scale (hereafter SOP; Childers, Houston, and Heckler 1985), which assesses people's propensity to process information visually or verbally (see also Richardson 1977). Consumers with a strong inclination toward visual

<sup>1</sup>A similar distinction has been drawn between "hedonic" and "instrumental" components of consumer attitudes (see, e.g., Batra and Ahtola 1990).

processing (visualizers) may be more likely to picture the episode in their minds to "see how it feels" than consumers with a strong inclination toward verbal processing (verbalizers). Hence, among subjects with a consummatory motive, visualizers may be more influenced by their preexisting mood states than verbalizers. Among subjects with an instrumental motive, processing style should have little effect because subjects are less likely to inspect their feelings given their low perceived relevance.

**H2:** Among subjects with a consummatory motive, visualizers will be more influenced by their preexisting mood than verbalizers. Among subjects with an instrumental motive, neither visualizers nor verbalizers will be influenced by their preexisting mood.

## Method

*Subjects and Design.* Eighty-eight undergraduates participated in groups of 10, on average, and were randomly assigned to one of four experimental conditions of a  $2 \times 2$  design. The first factor was subjects' preexisting mood (positive or negative) when making the decision. The second factor was their motive (consummatory or instrumental). In addition to these two manipulated factors, subjects' processing style was assessed (i.e., measured) along the visualizer-verbalizer dimension.

*Procedure.* The experiment was introduced as two separate studies. In the first study, purportedly about scale development, subjects first completed the SOP scale (Childers et al. 1985). Their mood was then manipulated by having them provide vivid descriptions of a recent event that had affected them personally. The second study was introduced as one that investigates students' liking of various consumption activities. Subjects were asked to carefully read the description of a new movie and to report the likelihood that they would attend a preview for the movie over the weekend. Unlike in previous studies, the decision task was not presented as merely hypothetical. Subjects were led to believe that the movie actually existed and were asked to report their actual behavioral intentions toward the consumption episode. Other dependent measures, process measures, and demand checks were also collected.

*Mood.* Subjects' preexisting mood was manipulated using a task similar to the one used by Schwarz and Clore (1983). Under the guise of identifying items for a new scale, subjects were asked to describe in writing a recent event that had affected them personally. In the negative mood condition they were instructed to describe an event that made them "feel really bad," whereas in the positive mood condition they were instructed to describe an event that made them "feel really good." They were encouraged to be as vivid and detailed as possible, and were given 20 minutes to complete the task. It was anticipated that subjects' mood would contaminate their subsequent

feelings when assessing their behavioral intentions toward the movie episode.

*Stimuli and Motives.* In the consummatory motive condition, the instructions emphasized the experience of going to the movie as the primary motive for assessing whether to see it. The description of the movie was preceded by instructions stressing that "after a long week of school and hard work, every student deserves some good time on the weekend." As a result, they "may want to enjoy life, at least for a few hours." It was expected that subjects in this condition would perceive feelings toward the target to be particularly relevant.

In the instrumental condition, the instructions emphasized an extrinsic reason for going to the movie preview. The movie description was preceded by instructions explaining that subjects who would see the movie would qualify for a subsequent commercial study. Participants in the subsequent study would receive \$4 and be reimbursed the price of the movie ticket. It was anticipated that subjects exposed to these instructions would perceive feelings toward the movie to be less relevant and would be more likely to assess the movie as a means of qualifying for the monetary reward offered in the subsequent study.

*Style of Processing.* Subjects were administered Childers et al.'s (1985) SOP scale, which assesses people's propensity to process information visually versus verbally. Adapted from Richardson (1977), the SOP scale contains 22 items. Eleven items assess propensity to process visually (e.g., "I find it helps to think in terms of mental pictures when doing many things"); and 11 items assess propensity to process verbally (e.g., "I prefer to read instructions about how to do something rather than have someone show me"). The scale's construct validity has been documented by Childers et al. (1985).

*Measures.* The main dependent variable was subjects' reported likelihood of going to a preview of the movie, measured on a nine-point scale (1 = extremely unlikely; 9 = very likely). After reporting their behavioral intentions, subjects were asked about the purpose of the study. As a manipulation check, subjects were then asked to report what mood they were in after having described the personal event. These feelings were assessed by five seven-point items (cheerful/depressed; sad/joyful; annoyed/pleased; happy/unhappy; in a good/bad mood).

## Results: Manipulation and Confounding Checks

*Mood.* The five mood manipulation items were summed into a single measure of mood pleasantness ( $\alpha = .96$ ), which was then submitted to a  $2$  (mood)  $\times$   $2$  (motive)  $\times$   $2$  (style of processing) ANOVA. As expected, subjects in the positive mood condition reported

being in a more pleasant mood ( $\bar{X} = 5.73$ ) than subjects in the negative mood condition ( $\bar{X} = 4.97$ ,  $F(1, 80) = 112.51$ ,  $p < .0001$ ). No other effect was significant, indicating that subjects' mood was affected neither by the motive manipulation nor by their style of processing.

*Motive.* An independent sample of 35 subjects facing the same decisions as subjects in the main experiment were asked which of two perspectives would "most people have in mind when assessing their intention of seeing" the movie. Answers were collected on a seven-point scale anchored by "they will focus on how enjoyable or unpleasant this experience will be" and "they will focus on whether there is something to gain." (The question was worded in the third person to reduce social desirability pressures.) Subjects also reported, on a similar scale, what perspective they had in mind when making their decision. The two measures ( $r = .92$ ) were averaged into a single index of subjects' motives, where low values reflected a consummatory motive and high values an instrumental motive. An ANCOVA (with social desirability as a covariate) revealed that subjects exposed to the instrumental instructions ( $\bar{X} = 3.78$ ) were more likely to base their decisions on whether there were "something to be gained" (and less likely to base their decisions on "how enjoyable or unpleasant this experience would be") than subjects exposed to the consummatory instructions ( $\bar{X} = 2.42$ ,  $F(1, 32) = 4.02$ , one-tailed  $p < .03$ ). Confounding checks also indicate that the manipulation did not affect subjects' involvement with the task, nor did it affect the perceived difficulty of the task (both  $F$ 's  $< 1$ ).

*Processing Style.* A visualizer-verbalizer score was computed for each subject by summing responses to the visual items and subtracting responses to the verbal items, as recommended by Childers et al. (1985). Based on this score, a median split was performed within each experimental condition to distinguish "visualizers" from "verbalizers" in the remaining analyses.

*Effects on Behavioral Intentions.* The behavioral intentions dependent measure was submitted to a 2 (mood)  $\times$  2 (motive)  $\times$  2 (processing style) ANCOVA. Because the decision task was not just hypothetical, there was expectedly substantial experimental error. In order to increase statistical power, the number of movies seen in the past year in the same theater was entered as a covariate, and the hypotheses were tested using directional (one-tailed) tests (see, e.g., Keppel 1991; Rosenthal and Rosnow 1985). The least-square means are reported in Table 1. There was a main effect of motive ( $F(1, 79) = 18.62$ ,  $p < .0001$ ). Subjects with an instrumental motive reported higher behavioral intentions ( $\bar{X} = 7.25$ ) than subjects with a consummatory motive ( $\bar{X} = 4.93$ ), which probably reflects the higher monetary incentive in the instrumental condition.

More interestingly, there was a significant interaction between mood and motive ( $F(1, 79) = 2.71$ , one-tailed

$p = .05$ ). Consistent with Hypothesis 1, in the consummatory condition, subjects in a positive mood reported higher behavioral intentions ( $\bar{X} = 5.67$ ) than subjects in the negative mood condition ( $\bar{X} = 4.20$ ,  $F(1, 79) = 4.20$ , one-tailed  $p = .02$ ). In contrast, positive mood ( $\bar{X} = 7.15$ ) and negative mood subjects ( $\bar{X} = 7.36$ ) in the instrumental condition expressed similar behavioral intentions ( $F < 1$ ).

Although the overall interaction of mood, motive, and style of processing was not significant ( $F(1, 79) = 1.43$ ,  $p = .23$ ), it appears that the simple main effect of mood in the consummatory condition was essentially driven by visualizer subjects. A planned contrast shows that the simple effect of mood is significantly greater among visualizers with a consummatory motive ( $\text{diff}_{\text{positive} - \text{negative}} = 2.74$ ) than in the other conditions pooled together ( $F(1, 79) = 11.85$ , one-tailed  $p < .001$ ). This finding is consistent with Hypothesis 2.

## Discussion

It was found that subjects' preexisting mood influenced their behavioral intentions toward a movie when their motive was consummatory but not when their motive was instrumental. This pattern of findings supports the thesis that reliance on the HDIF heuristic depends on the perceived relevance of feelings toward the target. Consumers who have consummatory motives are particularly concerned about their affective experience. As a result, they are more likely to regard the feelings they experience while they are thinking about the episode as very relevant, and incorporate them into their decision. This process is less likely when consumers have instrumental motives. Because of their lesser concern for affect, consumers with instrumental motives do not consider feelings toward the target to be particularly relevant and are less likely to let them influence their decision.

In a sense, these results conceptually replicate Schwarz and Clore (1983) in showing that consumers seem to grant information value to the momentary feelings they experience during the decision process. However, this study captures a different aspect of the information value of feelings. In Schwarz and Clore's (1983) studies, the information value of subjects' momentary feelings depended on whether subjects perceived them to be representative of the target (see also Gorn et al. 1993). In this experiment, the information value of the feelings depended on whether subjects perceived feelings toward the target to be relevant. The consummatory and instrumental motive conditions did not differ in terms of how salient it was that something other than the target may have been responsible for subjects' feelings; the two motive conditions differed in terms of how concerned subjects were with their affective experience with the target.

Alternative explanations for the observed interaction of mood and motivation deserve attention. Rather than reflecting a differential relevance of feelings in the two motive conditions, this interaction may have been the

TABLE 1  
EXPERIMENT 1: MEAN BEHAVIORAL INTENTIONS

	Consummatory motive		Instrumental motive	
	Verbalizers	Visualizers	Verbalizers	Visualizers
Positive mood	4.73	6.61	6.80	7.49
Negative mood	4.53	3.87	7.07	7.66
Difference (positive - negative)	.20	2.74	-.27	-.17

result of a ceiling effect in the instrumental motive condition. This ceiling effect explanation was examined by reanalyzing the data through the method of successive intervals, which is largely insensitive to ceiling and floor effects (Jones 1960). The reanalysis yielded a virtually identical pattern of results, suggesting that a ceiling effect was probably not a viable alternative explanation. One could also argue that the absence of a mood effect in the instrumental condition was due to a higher level of involvement or a higher degree of task difficulty. However, the pilot study conducted to check confounding suggests that involvement and task difficulty were equivalent across motive conditions.

A more compelling explanation builds on the hypothesis that mood effects on judgments are mediated by the cuing of mood congruent material in memory (Isen et al. 1978). Subjects in a positive mood may have accessed more positive cognitions (and fewer negative cognitions) about the movie episode than did subjects in a negative mood (see also Bower 1981). To account for the interaction with motives, one could argue that different types of cognitions needed to be accessed in the two motive conditions. The pattern of findings could then be attributed to the fact that cognitions in the consummatory conditions were more sensitive to mood congruency effects than were cognitions in the instrumental motive conditions. This explanation is difficult to rule out without a precise assessment of the cognitions that were accessed during the decision process. Experiment 2 attempts to provide additional evidence of the HDIF explanation using a triangulation approach.

It was also observed that in the consummatory condition, the influence of preexisting mood was stronger among subjects with a propensity to process information visually than among subjects with a propensity to process information verbally. This finding is consistent with the hypothesis that the HDIF heuristic should be more readily used by those consumers who can easily construct a vivid representation of the episode and instantiate a feeling response to this representation. This finding, however, should be interpreted with caution, especially as it involves an individual difference variable rather than a true experimental factor. One could argue, for instance, that the mood manipulation could simply have been stronger among visualizers than among verbalizers. Two findings appear to contradict this explanation. First, analysis of

the mood manipulation check did not reveal an interaction between mood and processing style ( $F < 1$ ), suggesting that the strength of the mood manipulation did not depend on subjects' style of processing. Because the mood-manipulation check was, perhaps, too insensitive to reflect this effect, subjects' mood-induction protocols were also content analyzed. A judge who was blind to the hypotheses and subjects' conditions coded each protocol (i.e., described personal experience) for its pleasantness. A mood  $\times$  style of processing ANOVA revealed that while the descriptions were more pleasant in the positive mood condition ( $\bar{X} = 7.12$ ) than in the negative mood condition ( $\bar{X} = 2.40$ ,  $F(1, 80) = 112.51$ ,  $p < .0001$ ), the interaction between mood and style of processing was again insignificant ( $F < 1$ ). Therefore, it does not seem that subjects' style of processing intensified the mood manipulation. It remains possible, however, that visualizers may somehow have processed movie information and affect differently. The pattern of results could be attributed to some peculiarity of their processing.

In summary, this experiment has identified a potentially important determinant of a decision maker's reliance on the HDIF heuristic. Reliance on this heuristic seems to depend on the perceived relevance of feelings toward the target, hence on the decision maker's motive. Given the limitations of the study, it is now important (1) to assess how robust this finding is, and (2) to provide stronger evidence of the underlying process. These issues are addressed in experiment 2.

## EXPERIMENT 2

The purpose of this experiment was twofold. One objective was to replicate experiment 1's key finding that reliance on the HDIF heuristic depends on the perceived relevance of feelings toward the target. The second objective was to provide stronger evidence of the hypothesized process. This second objective was pursued by explicitly comparing the HDIF heuristic to an attribute-based process as descriptive models of decisions about consumption episodes. The logic was to triangulate toward alternative processes by expanding the design of experiment 1 to include process baseline conditions. Recall that in experiment 1, subjects did not receive any direction about the process they should follow to make their decisions. One way of inferring the process that they spontaneously

follow is to instruct a group of baseline subjects to follow a specific (and known) decision process, and compare the outcomes of their decisions with those of subjects who did not receive such processing instructions. If both groups of subjects reach similar decisions, one can infer that the process imposed on the baseline subjects provides at least a paramorphic, and possibly isomorphic, representation of the unknown process followed by the uninstructed subjects. If, conversely, the two groups reach different decisions, it is unlikely that the unknown process followed by the uninstructed subjects resembles the one specified in the baseline condition. Such baseline conditions therefore provide a way of triangulating toward the processes of interest.

As in experiment 1, subjects, who had been induced to be in a positive or a negative mood through a supposedly unrelated task, were asked to assess their intention of engaging in a consumption activity. In the two open-process conditions (replicating experiment 1), subjects were given either a consummatory motive or an instrumental motive, but did not receive any instruction about how to make their decision. In the two baseline conditions (triangulating toward the processes), subjects were provided with a consummatory motive and were encouraged to reach their decisions by relying on one of two specific processes. In the baseline-piecemeal condition, subjects were encouraged to follow an attribute-based process: accessing salient beliefs and combining their evaluative implications into an overall evaluation of the episode. In the baseline-experiential condition, subjects were instructed to follow processes that mimic those hypothesized in the HDIF heuristic.

If, as hypothesized, consumers with consummatory motives rely spontaneously on a HDIF process, the decision outcomes of uninstructed subjects in the open-process-consummatory motive condition should resemble the decision outcome of baseline-experiential subjects who were explicitly instructed to mimic HDIF processes. By the same logic, if it is observed that the decision outcome in the open-process-consummatory condition differs from that in the baseline-piecemeal condition, it can be deduced that the attribute-based process elicited does not adequately represent the process underlying decisions of consumers with a consummatory motive. The hypotheses were thus as follows:

- H3:** Subjects' preexisting mood will have comparable effects on the decision outcome in the open-process-consummatory condition and in the baseline-experiential condition: In both conditions, a positive preexisting mood will result in more favorable behavioral intentions than a negative preexisting mood.
- H4:** The effect of preexisting mood will be significantly smaller in the open-process-instrumental and baseline-piecemeal conditions than in the open-process-consummatory and baseline-experiential conditions.

## Method

### *Subjects and Design*

One hundred thirty-eight undergraduates were asked to assess their intention of going to a movie within the next week. They participated in sessions of six subjects on average and were randomly assigned to one of eight conditions of a  $2 \times 4$  between-subjects design. The first factor manipulated their mood as they were making their assessment (positive or negative). The second factor manipulated the instructions provided to subjects. In the two open-process conditions, subjects were provided with a specific motive (consummatory or instrumental) for going to a movie and received no direction about how to make their decisions. In the two baseline conditions, all subjects were provided a consummatory motive and were encouraged to make their decisions by relying on a specific process. In the baseline-piecemeal condition, subjects were instructed to judge the episode through an attribute-based process, whereas in the baseline-experiential condition subjects were instructed to mimic HDIF processes.

### *Procedure*

The different phases of the experiment were disguised as unrelated tasks. First, subjects completed the same mood induction procedure as in experiment 1. Next, they received a second questionnaire in which they were asked to assess their intention of going to a movie within the next week. Unlike experiment 1, the movie was not specified, to attenuate the effects of idiosyncratic movie tastes. The remaining part of the questionnaire consisted of process measures and demand checks.

### *Instructions*

*Open-Process-Consummatory Motive Condition.* Instructions in this condition were similar to those of experiment 1. Subjects were told that the study was "about how much college students enjoy various kinds of leisure activities." They were reminded that "after a long week of school and hard work, students often want to just enjoy themselves and have a good time." It was suggested that "one way of having a good time would be to go to the movies." Subjects were then asked "How much do you intend to go see a movie within the next week?"

*Open-Process-Instrumental Motive Condition.* Subjects were told that the questionnaire was a pretest for a future study in which participants would be asked to write a short essay and would be paid \$10 for participating. The instructions further suggested that the 50 percent of the participants who wrote the better essays would receive an extra \$20. The essays could be based on (1) a movie seen within the next week; (2) a news article published within the next week; or (3) a book read within the past two years. After receiving these instructions, subjects

were then asked their intention of going to a movie within the next week.

Given the potential reward of participating in the future study (\$30 for 50 percent of the subjects; \$10 for the others), it was anticipated that most subjects would be interested in participating, and would assess their intention of going to a movie as a means of being able to write a successful essay. The monetary incentive was expected not to have a strong psychological association to the movie episode as subjects could participate without seeing a movie. This reduced the chance of a ceiling effect in this condition.

*Baseline-Piecemeal Condition.* Subjects in this condition were exposed to the same consummatory instructions as subjects in the open-process-consummatory motive condition. In addition, they were instructed to assess their behavioral intentions by using an attribute-based process:

Think about why seeing a movie within the next week would be a good thing to do or why it might not be a good thing to do. List these pros and cons in the space below. Indicate the order in which each pro or con has occurred to you by writing a number (1, 2, 3, and so on) next to it.

Subjects were provided two columns to list their positive and negative thoughts about the episode. They were then asked the same question as in the other conditions.

*Baseline-Experiential Condition.* Again, subjects were exposed to the same consummatory motive instructions as subjects in the open-process-consummatory motive condition. In addition, they were instructed to rely on processes that mimic the HDIF heuristic to assess their behavioral intentions:

Try to "picture" yourself at a movie. Try to imagine as vividly as you can what it would be like to be at this movie (the actors, the theater, the atmosphere, the sound, etc.). Focus in particular on your feelings as you imagine yourself at this movie. Does it feel "good" or does it feel "bad"? Is it pleasant or unpleasant?

## Results

*Demand and Manipulation Checks.* Although no one could articulate the hypotheses being tested, two subjects expressed suspicion that the mood manipulation was related to the second questionnaire. Their data were discarded, leaving 136 observations.

The motive manipulation was assessed with an independent sample of 25 subjects. After making their decisions, these subjects completed a seven-point semantic differential scale where low values indicated a consummatory motive, whereas high values indicated an instrumental motive. As expected, subjects presented with the instrumental instructions ( $\bar{X} = 3.53$ ) were more likely to base their decisions on whether the episode would help them attain a specific objective, and less likely to base their decisions on how enjoyable or unpleasant this experience

would be, than subjects presented with the consummatory instructions ( $\bar{X} = 2.08$ ,  $F(1, 23) = 6.31$ , one-tailed  $p < .01$ ). Subjects in the consummatory condition were thus relatively more concerned about their affective experiences than were subjects in the instrumental condition. Confounding checks also showed that the motive manipulation did not induce different levels of involvement and task difficulty ( $F$ 's  $< 1$ ).

*Behavioral Intentions.* The behavioral intentions measure was submitted to a 2 (mood)  $\times$  4 (instruction) ANCOVA. Three covariates were entered in the analysis to reduce error variance: self-reported mood coming into the study, the number of movies seen in the last six months, and self-assessed time and monetary constraints.<sup>2</sup> The least-square means are reported in Table 2. The analysis revealed a main effect of instruction ( $F(3, 125) = 4.00$ ,  $p < .01$ ), a marginally significant main effect of mood ( $F(1, 125) = 3.09$ ,  $p = .08$ ), and a marginally significant interaction between mood and instruction ( $F(3, 125) = 2.31$ ,  $p = .08$ ). The hypotheses were tested through a series of planned interaction contrasts (see Keppel 1991).

If consumers with consummatory motives spontaneously inspect their feelings to make decisions about consumption episodes, the mood manipulation should exert a significant influence on behavioral intentions in the open-process consummatory condition. That influence should resemble the one observed in the baseline-experiential condition, where subjects were explicitly instructed to mimic HDIF processes. These two conditions were thus compared through an interaction contrast leaving out the other two conditions. Consistent with Hypothesis 3, the contrast revealed a main effect of mood ( $F(1, 125) = 7.24$ ,  $p < .01$ ) but no interaction between mood and instruction ( $F < 1$ ), suggesting that the mood effect was significant and comparable in the open-process-consummatory and the baseline-experiential conditions.

Similarly, it was predicted that subjects in both the open-process-instrumental condition and the baseline-piecemeal condition would be little influenced by their preexisting mood. These two conditions were thus compared in a second interaction contrast, leaving out the other two conditions. This contrast revealed neither a main effect of mood nor an interaction between mood and instruction (both  $F$ 's  $< 1$ ), suggesting that the mood effect was comparably nonsignificant in these two conditions.

A third interaction contrast was constructed by pooling the open-process-consummatory condition with the base-

<sup>2</sup>Because the study was run during the two weeks preceding the final exams, much variability was anticipated with respect to the time constraint that subjects would experience. To assess the severity of this constraint, subjects were asked, "How much would you have to give up (time, money, etc.) to see a movie over the next week?" They answered on a nine-point scale anchored by "I wouldn't have to give up much" and "I would have to give up a great deal."



TABLE 2  
EXPERIMENT 2: MEAN BEHAVIORAL INTENTIONS

Conditions	Open-process-consummatory	Open-process-instrumental	Baseline-attitude formation	Baseline-experiential
Positive mood	5.16	5.62	4.89	7.34
Negative mood	4.14	5.61	5.42	5.30
Difference (positive - negative)	1.02	.01	-.53	2.04

line-experiential condition and pooling the open-process-instrumental condition with the baseline-piecemeal condition. Consistent with Hypothesis 4, a significant interaction between mood and instruction was uncovered ( $F(1, 125) = 4.96, p < .03$ ), showing that the mood manipulation had a significant effect in the open-process-consummatory and baseline-experiential conditions but not in the open-process-instrumental and baseline-piecemeal conditions.

### Discussion

It was found that, in the open-process-consummatory and baseline-experiential conditions, subjects who were in a good preexisting mood expressed more favorable behavioral intentions than did subjects who were in a bad preexisting mood. This effect was not observed in the open-process instrumental condition or in the baseline-piecemeal condition. The contrast between the open-process-consummatory and open-process-instrumental conditions replicates experiment 1's main finding. This contrast indicates that there is a robust process difference in how consumers make decisions under instrumental versus consummatory motives. Consumers are more likely to rely on feelings experienced during the decision process when they have consummatory motives, that is, when they perceive feelings toward the target to be relevant. When the underlying motive is instrumental, and the perceived relevance of feelings toward the target is presumably low, decision makers are less likely to rely on their momentary feelings, even if they have no reason to doubt that the feelings are representative of the target.

Comparison with the process baselines provides additional insights about the processes that consumers use to make decisions when they have consummatory or instrumental motives. The parallel effect obtained in the open-process-consummatory and baseline-experiential conditions suggests that the process imposed on subjects in the latter baseline condition is a plausible paramorphic representation of the process consumers with consummatory motives (spontaneously) follow when making decisions about consumption episodes. Subjects in the open-process-consummatory condition were influenced by their moods as if they were assessing how the episode felt. By the same logic, the absence of a parallel mood effect in the baseline-piecemeal condition suggests that the elicited attribute-based process does not describe as well how

consumers with a consummatory motive make decisions about consumption episodes.

Again, alternative explanations of the results are worth examining. One explanation is that ceiling effects prevented subjects' preexisting mood from influencing behavioral intentions in the open-process-instrumental condition. However, unlike in experiment 1, behavioral intentions in this conditions were not particularly high ( $\bar{X} = 5.6$  on a nine-point scale). The means were in fact lower than in the open-process-experiential condition, where a mood effect was observed. Therefore, ceiling effects do not seem to be a viable explanation. Mood congruent retrieval may again be invoked to explain the simple effect of mood in the open-process-consummatory condition. The lack of a parallel mood effect in the open-process-instrumental condition could be attributed to the possibility that different types of cognitions needed to be accessed depending on the motive instructions. Cognitions in the instrumental condition may have been less sensitive to mood effects than were cognitions in the consummatory condition. Although this explanation may account for the results, it does not seem as parsimonious as the one proposed in this article.

A major limitation of the first two experiments, and of many studies on affect as information, is that feelings toward the target were manipulated by varying subjects' preexisting mood. It is therefore difficult to assert that feelings toward the target were actually experienced during the decision process. Demonstrating that such feelings are indeed instantiated would strengthen the HDIF hypothesis. This issue was addressed in experiment 3.

### EXPERIMENT 3

This study examines whether when the HDIF heuristic is evoked, feelings toward the target are indeed instantiated or experienced. It also attempts to show that if consumers incorporate current feelings into their decisions, it is not because they attach information value to their mood per se ("How am I feeling *now*?"), but because they attribute part of these feelings to the object of the decision ("How do I feel *about it*?"). Stated differently, the HDIF heuristic is the assessment of one's affective responses to the target, not just the inspection of one's current mood.

Suppose that subjects are asked to make a decision about a pleasant consumption episode (e.g., attending a

high school reunion). The HDIF heuristic implies that they will hold a representation of this episode in mind (e.g., imagining themselves chatting with old friends), which will instantiate pleasant feelings (e.g., cheerfulness). These internally generated feelings are presumed to be phenomenologically similar to the type of valenced feelings induced by external events. The instantiated feelings will be used in the evaluation of the episode if two conditions are met. The first condition is that feelings toward the target are perceived to be relevant for the decision at hand. This is likely to be the case when the underlying motive is consummatory (cf. experiments 1 and 2). The second condition is that feelings experienced during the decision process are believed to be representative of the target episode (see, e.g., Keltner et al. 1993; Schwarz and Clore 1983).

Suppose now that subjects are led to believe that something other than the target episode is responsible for their current feeling experience (e.g., a popular musical tune is being played) even though this external source is not potent enough to actually alter their feeling states (e.g., the music is played at a soft level). Subjects may mistakenly believe that part of the feelings that they are experiencing as they are thinking about the consumption episode actually comes from the external source. As a result, they may seek to subtract from their judgment of the episode part of their feelings (see, e.g., Martin, Seta, and Crelia 1990). The outcome of their decision may therefore become less favorable than that of consumers who are not led to misattribute their anticipatory feelings.

Such a subtraction effect would allow two process inferences. First, it would show that a particular decision input had indeed been accessed in the decision process because there was something to be subtracted. Second, it would show that this input is phenomenologically similar to the experience of externally induced valenced feelings; otherwise, subjects would not confuse the two. One could therefore conclude that anticipatory feelings have indeed been instantiated or experienced. Furthermore, if reliance on the HDIF heuristic is less likely when decisions are guided by instrumental motives, one would expect the outcome of such decisions to be less sensitive to the type of attribution that consumers make about their feelings.

**H5:** Consumers making a decision about a pleasant consumption episode for consummatory reasons will be less favorable toward this episode, if a plausible alternative cause for their feelings is made salient than if this alternative cause is not made salient.

**H6:** Decisions guided by instrumental motives will be less affected by whether or not a plausible alternative cause for their feelings is made salient.

## Method

*Overview of the Design.* Seventy-one undergraduates were asked to report their intention to engage in different

consumption episodes described to them. In the two experimental conditions, a musical piece was played in the background while subjects were assessing their intentions. In the control condition, subjects assessed their behavioral intentions with no musical background. Two factors were manipulated. The first factor manipulated within-subject the type of consumption episode being evaluated. It was expected that one episode would be judged primarily on the basis of consummatory motives, whereas the other episode would be judged primarily on the basis of instrumental motives. The second factor manipulated, between-subjects, how subjects would attribute feelings experienced when making the decisions. Although the background music was played softly enough that it was unlikely to actually affect subjects' feelings, the second factor manipulated subjects' belief that it could. In the high salience condition, subjects' attention was drawn to the fact that the background music could affect their feelings. In the low salience condition, the music's potential influence on subjects' feelings was not made salient.

*Consumption Episodes and Motives.* Pretests were conducted to select two experimental episodes that would be favorably evaluated and vary in terms of typical motive. One episode, attending a high school reunion, was found to be associated with consummatory motives; the other episode, attending an introductory course on spreadsheets, was found to be associated with instrumental motives.

*Procedure.* To ensure a minimum level of distraction, subjects were run in small sessions of four people, on average, in a tightly controlled laboratory setting. In the first part of the session subjects listened to and rated three musical segments. As further detailed below, this part of the study was designed to manipulate subjects' attributions. The second part of the session was purportedly about people's ability to make plans when there is background music. Subjects were told that, while assessing their behavioral intentions, they would hear various pieces of music, and that they should ignore them and keep on answering the questionnaire. Subjects were first presented with written descriptions of consumption episodes, and then asked to assess their intention to engage in the described consumption activities. While they were completing this task, the musical segments presented earlier were played again in the background at a quieter level. One of the segments, a pleasant one, was played at the exact same time the target decisions were to be made. Playing the music at a quieter level ensured that it would not affect subjects' mood.

The first episode was for practice and was accompanied by a neutral musical segment. The two experimental episodes were accompanied by a pleasant musical segment. The order of the experimental episodes was counterbalanced across subjects. After reporting their decisions, subjects completed a series of manipulation and confounding checks and various individual difference measures (e.g.,

age, self-reported knowledge of computer issues, gender, etc.).

Subjects in the control condition did not complete the first task. They were administered only the second part of the experiment. Every other aspect of the study was identical except that there was no musical background.

*Musical Segments and Feelings.* A pretest had suggested that the high school reunion episode was primarily associated with pleasant feelings such as happiness and excitement. To identify a musical segment that would elicit similar affective responses, affective responses to a variety of musical segments were assessed in another pretest. The segment that seemed best suited to the high school reunion episode was from the opening tune of the popular "Muppet Show," which elicited largely positive affective responses, such as feeling "cheerful" and "joyful" ( $\bar{X} = 5.89$  on a 1-7 scale). Two additional segments were selected. One elicited neutral feelings ( $\bar{X} = 4.39$  on a 1-7 scale). The other elicited unpleasant feelings such as being "bored" and "annoyed" ( $\bar{X} = 2.56$  on a 1-7 scale). The latter two segments were also played in the subsequent part of the experiment as subjects were completing filler tasks, not as they were making target decisions.

*Attribution.* Subjects' attributions were manipulated during the first phase of the study when subjects listened to the three musical segments for the first time. In the high salience condition, subjects' attention was directed to how each segment affected their feelings. They were to report their reactions to each segment on four semantic differential scales anchored by sad/joyful, bored/excited, depressed/cheerful, and annoyed/happy. To further increase the salience of the affective influence of the musical segments, these subjects were encouraged to compare how their feelings in response to each segment varied. In the low salience condition, subjects' attention was directed away from their feelings. These subjects were asked to rate each segment on four nonevaluative dimensions also presented in a semantic differential format: familiar/unfamiliar, slow/fast paced, simple/complex, modern/classical. To further distract their attention from their feelings, the subjects were asked to assess which pair of segments was the most similar and which one was the most dissimilar.

## Results

*Motive Manipulation and Confounding Checks.* Subjects reported their motives for each episode using a seven-point scale anchored by "I focused on how enjoyable or unpleasant this experience would be" and "I focused on whether it would help me attain a specific objective." Low values indicated a consummatory motive and a greater concern for affect whereas high values indicated an instrumental motive and a lesser concern for affect. As expected, the high school reunion ( $\bar{X} = 1.83$ ) was perceived as more consummatory (and less instru-

**TABLE 3**  
EXPERIMENT 3: MEAN BEHAVIORAL INTENTIONS

Episode (motive)	Attribution		
	High salience	Low salience	Control
High school reunion (consummatory)	6.31 <sup>a</sup>	7.66 <sup>b</sup>	7.20 <sup>b</sup>
Computer course (instrumental)	4.81 <sup>a</sup>	5.53 <sup>a</sup>	5.70 <sup>a</sup>

NOTE.—Numbers with different subscripts in a given row are different at  $p < .05$ .

mental) than the computer course ( $\bar{X} = 5.75$ ;  $F(1, 65) = 202.68$ ,  $p < .0001$ ). A confounding check showed that the two episodes were perceived as equally important ( $F < 1$ ).

*Behavioral Intentions.* The mean behavioral intentions toward each episode are reported in Table 3. The behavioral intentions measure was submitted to a 2 (episode)  $\times$  3 (attribution) mixed ANCOVA. Three variables were entered as covariates to reduce error variance: gender, the pleasantness of high school memories, and attitude toward computers in general. This omnibus analysis revealed a marginally significant main effect of attribution ( $F(2, 62) = 2.65$ ,  $p = .08$ ), suggesting that subjects' attributions about the sources of their feelings influenced their behavioral intentions. However, the interaction between the type of episode and the type of attribution was not significant ( $F < 1$ ). This suggests that, contrary to expectations, the effects of subjects' attributions were essentially parallel across the two types of episodes. To further interpret the data, univariate contrasts were performed for each episode separately.

It was predicted that behavioral intentions toward a pleasant consummatory episode would be less favorable if it was made salient that the background music could be responsible for the pleasant feelings experienced during the decision process than if this fact was not made salient. Univariate contrasts revealed that behavioral intentions toward the high school reunion episode were significantly higher in the low salience and control conditions than in the high salience condition ( $F(1, 65) = 3.85$ , one-tailed  $p < .03$ ). There was no difference between the low salience and control conditions ( $F < 1$ ). Hence, consistent with Hypothesis 5, the attribution manipulation lowered behavioral intentions in the high salience condition without heightening behavioral intentions in the low salience condition. This pattern of results rules out the possibility that the music, albeit replayed at a quieter level, induced an elevation of subjects' mood.

It was also expected that the attribution manipulation would have a lesser effect on decisions driven by instrumental motives. The evidence regarding this prediction is mixed. On the one hand, behavioral intentions toward the computer course episode were again slightly lower in

**TABLE 4**  
EXPERIMENT 3: HEDONIC AND INSTRUMENTAL  
EVALUATIONS

Episode and type of evaluation	Attribution		
	High salience	Low salience	Control
High school reunion:			
Hedonic	5.56	6.26	6.01
Instrumental	4.79	4.85	4.56
Computer course:			
Hedonic	3.56	4.06	4.33
Instrumental	5.24	5.22	5.70

the high salience condition than in the low salience and control conditions. The absence a significant omnibus interaction between attribution and type of episode suggests that this pattern largely parallels that observed for the consummatory reunion episode. On the other hand, univariate analyses of the behavioral intentions toward the computer course episode suggest the differences across conditions were not significant (main effect:  $F(2, 64) < 1$ ,  $p = .46$ ; contrast between high salience and low salience + control:  $F(1, 65) = 1.48$ ,  $p = .23$ ). This issue is addressed in the discussion.

*Hedonic versus Instrumental Evaluations.* To examine whether the subtracted input had a specific affective quality, additional measures were collected (with no musical background) after subjects had reported their behavioral intentions. Subjects were asked to rate each episode on four seven-point items. Two items measured subjects' hedonic evaluation of the episode: "very boring/very fun, enjoyable" and "would put me in a good/bad mood." Two items measured subjects' instrumental evaluation of the episode: "very useful/very useless" and "very interesting/uninteresting." It was predicted that the attribution manipulation would have a stronger influence on the hedonic evaluation of the episode than on its instrumental evaluation. The two types of evaluative responses to the high school episode were thus submitted to a mixed ANCOVA, with type of response as a repeated factor, attribution and order of presentation as nonrepeated factors, and pleasantness of high school memories as a covariate. A similar analysis was performed on hedonic and instrumental evaluations of the computer episode, using attitude toward computers in general as a covariate. The means are reported in Table 4.

For the high school reunion episode, there was a significant interaction between type of response and attribution ( $F(2, 64) = 2.62$ , one-tailed  $p < .05$ ). The attribution manipulation had a significant influence on hedonic evaluations ( $F(2, 64) = 3.36$ ,  $p < .05$ ) but no influence on instrumental evaluations ( $F < 1$ ). Similar results were obtained for the computer course episode, although the interaction between type of response and attribution was not significant ( $F(2, 64) = 1.41$ ,  $p = .25$ ). The attribution

manipulation had a significant influence on hedonic evaluations ( $F(2, 64) = 3.48$ ,  $p < .04$ ) and a nonsignificant influence on instrumental evaluations ( $F(2, 64) = 1.55$ ,  $p = .22$ ). These results suggest that the misattributed responses had a distinctive affective quality.

## Discussion

As with previous studies on affect as information, this experiment capitalized on a manipulation of the perceived representativeness of feelings. However, this experiment differs from previous studies in an important respect. In previous studies, subjects' feelings toward the target were first augmented by a manipulation of subject's preexisting mood. Subjects then apparently canceled the contextually added feelings when the mood manipulation was made salient. In contrast, in this experiment subjects' feelings toward the target were never actually augmented. It is only subjects' beliefs that their feelings may have been augmented that was manipulated.

It was found that subjects who were led to believe that the background music could be responsible for their pleasant feelings expressed lower behavioral intentions than did subjects for whom the potential affective influence of the background music was not made salient. Apparently, subjects in the former condition subtracted part of their feelings toward the consumption episodes, mistakenly attributing them to the music. This finding is consistent with the thesis that subtle feelings toward the target are indeed instantiated during the decision-making process as the target is held in mind. Unless some decision input was indeed accessed, the decision outcome should not have depended on subjects' attributions. Furthermore, the phenomenological experience of this input is similar enough to that of valenced current feelings, such as the ones a popular musical tune would elicit, that these two responses may be confused in a decision-making task. The finding that the attribution manipulation influenced subjects' hedonic evaluations of the episodes but not their instrumental evaluations is additional evidence of the distinctive affective quality of the hypothesized decision input. The observed subtraction effect also shows that what consumers seek to inspect is not their affective state (or mood) per se, but rather it is the part of their affective experience that they can attribute to the target.

Support for Hypothesis 6 was mixed. Although the subtraction effect was somewhat smaller for the computer course episode than for the reunion episode, the difference was not significant. Two interpretations may be given to these ambiguous results. Decisions driven by consummatory motives may indeed be more likely to induce the instantiation of feelings than decisions driven by instrumental motives. However, the phenomenon may be so subtle that uncovering differences of feeling instantiation across motives would require unrealistic statistical power. Moreover, it is possible that, although people do not spontaneously access feelings for instrumental decisions, subjects in the high salience condition were prompted to do

so because the attribution manipulation drew their attention to their feelings. Alternatively, there may be a genuine parallelism between how feelings are instantiated for consummatory and instrumental decisions. What sets the two types of decision apart, therefore, may not be whether feelings are instantiated, but whether they are *used* after they have been instantiated. Even subjects who would not have used the feelings in their evaluations (because of their instrumental motives) may have had a slight tendency to subtract them from their evaluations.

## GENERAL DISCUSSION

### The Essential Input

A substantial amount of research shows that affect is a significant aspect of consumer behavior (see, e.g., Derbaix and Pham 1991; Havlena and Holbrook 1986; Hirschman and Holbrook 1982; Holbrook and Hirschman 1982). It is therefore surprising that studies of consumer decision making have largely omitted an examination of the role of affect, except as a contextual variable. Perhaps consumer behavior research simply needed a different way of looking at people's emotions and feelings? In this respect, the idea that affect is a source of information (see, e.g., Schwarz 1990) provides a much needed conceptual bridge between the overly cold literature on consumer decision making (Bettman 1993) and the growing literature on hot consumer behavior (e.g., Pham 1996; Rook 1987; Zajonc and Markus 1982). Looking at affect as a source of information helps us understand how consumers can use their feelings to guide their decisions.

Social-psychological research on affect as information (e.g., Keltner et al. 1993; Schwarz and Clore 1983, 1988) has shown that target evaluation may be based on a HDIF heuristic. The present studies indicate that a similar process may be used in consumer decision making. To make decisions about consumption episodes consumers may hold representations of these episodes in mind and use the feelings that these representations elicit as decision inputs. Consistent with this proposition, experiments 1 and 2 show that the decision outcome can be influenced by feelings experienced during the decision-making process. Although not unequivocal, the results of experiment 3 further suggest that feelings toward the target may indeed be instantiated during the decision process. The HDIF heuristic does not seem to be merely an inspection of one's mood, but rather an inspection of feelings that can be attributed the target. Findings from experiment 1 also indicate that reliance on the HDIF heuristic may depend on consumers' propensity to process information in a more sensory (e.g., visual) manner, suggesting that this type of process may involve concrete and holistic representations of the targets (see, e.g., Strack 1992). These latter results should be interpreted with caution, however, as they are based on a potentially confounded individual difference variable.

### Contingent Reliance on Feelings

Given that the HDIF process appears to generalize to consumer decision making, it becomes important to delineate its determinants. Reliance on feelings in judgments and decision making seems to depend on factors affecting: (1) the heuristic value of feelings, (2) their target representativeness, and (3) their perceived relevance.

*Feelings as Heuristics.* Reliance on feelings should be more likely when the feelings have significant heuristic value. According to Clore, Schwarz, and Conway (1994) this may be the case when few other sources of information are available, a prediction consistent with the principle that an input's utilization depends on its relative accessibility compared to alternative inputs (see, e.g., Lynch et al. 1988). Reliance on feelings should also be more pronounced when it helps to simplify the judgment or decision, as may be necessary when attentional resources are limited or when the judgment or decision is overly complex (Clore et al. 1994).

One type of decision difficulty of interest in consumer research occurs when the alternatives are noncomparable, as is usually the case with alternative consumption episodes (e.g., playing tennis vs. going clothes shopping). One strategy for choosing among noncomparable alternatives is to first compute an overall evaluation of each alternative, then compare the alternatives based on these overall evaluations (Johnson 1984). Previous research has assumed that such evaluations would be attribute based (e.g., linear-compensatory or conjunctive). However, as shown in this article, evaluations may also be feeling based. It is therefore possible that the HDIF heuristic plays a significant role in choice among highly noncomparable alternatives, an avenue that seems worthy of further research.

*Representativeness.* As discussed earlier, for feelings to be used in judgment and decision making, they have to be perceived as representative of the target. People are less likely to rely on their feelings if they have reasons to believe that the feelings have not been elicited by the target itself. This happens when a plausible external explanation for the feelings is made salient (see, e.g., Gorn et al. 1993; Schwarz and Clore 1983; the present experiment 3). It also happens when the feeling experience (e.g., exam-specific anxiety) and the judgment (e.g., general life satisfaction) have different referents (Keltner et al. 1993). Note that this does not necessarily imply that decision makers consciously perform a systematic check of how representative of the target their feelings are. Such a check is probably too effortful to be performed each time feelings are seemingly experienced in response to a target (see, e.g., Strack 1992). Instead, it is likely that by default, decision makers assume that their feelings are representative of the target (see, e.g., Schwarz 1990). It is only when it is very salient that the feelings are not representative of the target that people exclude them from their judgments, assuming that they have sufficient pro-

cessing resources (Strack 1992). This speculation is consistent with most models of concept utilization in judgment (see, e.g., Martin et al. 1990).

It is interesting to relate the notion of target representativeness with the seminal work of Schachter and Singer (1962). These authors were among the first to demonstrate the importance of attributional processes in people's interpretation of their feelings. However, attributional processes played a different role in Schachter and Singer's study than they did in this research. In the Schachter and Singer study, subjects relied on external cues (a confederate's euphoric vs. angry behavior) to interpret their private states of arousal. In this research, as in other studies on affect as information, the opposite occurred: subjects relied on their private affective responses to evaluate an external target (see, e.g., Martin, Harlow, and Strack 1992).

*Relevance and Concern for Affect.* Assuming that the feelings are representative of the target, such feelings need to be regarded as relevant for the judgment or decision at hand. This factor has gone largely unnoticed in previous research. This article shows that consumers are more likely to rely on their feelings when they have consummatory motives than when they have instrumental motives. This seems to be because consummatory motives heighten people's concern for their affective experience, hence the perceived relevance of feelings toward the target. It is interesting to note that subjects' motives appeared to be a powerful determinant of whether they utilized their feelings for evaluating the episodes. People thus seem to have greater latitude in assessing the relevance of feelings toward the target than they do in checking the feelings' representativeness. A worthwhile extension of this research would be to examine more directly the amount of control that people exert in assessing the relevance versus the representativeness of feelings.

Another promising avenue of research would be to examine other variables that influence people's concern for affect and the perceived relevance of feelings. For instance, consumers' concern for affect may vary largely across product categories. As Hirschman and Holbrook (1982) suggest, certain product categories (e.g., art, entertainment) may be intrinsically hedonic and experiential, whereas other categories (e.g., household cleaners) may be more utilitarian and functional. One would expect reliance on feelings to be more likely in decisions involving the former types of products than in decisions involving the latter. Concern for affect may also be determined by cultural norms. Certain events are indeed strongly associated with socially shared beliefs about how one should feel during these events (Hochschild 1979). For instance, in many cultures it is widely held that people should feel happy and cheerful on New Year's Eve. Such circumstances presumably also focus consumers' attention to their affective experience. An intriguing speculation would be that such circumstances also increase the likelihood of reliance on feelings in decision making.

## Limitations and Research Opportunities

Although the results seem relatively consistent across studies, it should be recognized that the effect sizes are quite modest. The modesty of the effects can be attributed in part to the level of experimental control that was opted for in the studies. There is little doubt, for instance, that in the "real world" feelings toward target episodes are related to their evaluative content. However, to demonstrate the distinctive role of feelings, the studies were designed to manipulate these feelings without significantly changing the evaluative content of the episodes. This feature of the studies sets a clear upper bound on the effect sizes that could be observed. Furthermore, unlike in many studies on consumer decision making, subjects' decision task was not just hypothetical. In experiment 1, for example, subjects were led to believe that the movie actually existed. This experimental realism came at the cost of increased error terms. Therefore, although the effects are admittedly small, interpretation of their significance should also take into consideration how minimal the manipulations were and how ambitious the dependent variable was (Prentice and Miller 1992).

Still, several sources of ambiguity remain. None of the studies provided direct evidence of the subtle feelings toward the target that are hypothesized in the HDIF heuristic. Although experiment 3 attempted to examine these feelings more directly than in other studies, the results were still inferential. One could also argue that contextual mood effects could have tainted the results. Two primary types of mood-related context effects have been discussed in the literature: mood-management (see, e.g., Morris and Reilly (1987) and mood-congruent recall (Isen et al. 1978). A mood-management explanation of the findings does not appear very plausible because subjects were asked to assess episodes that were remote in time rather than immediate. In experiment 1, for instance, all sessions were run on Tuesdays and Wednesdays, whereas the movie was allegedly to start showing the following weekend. It is unlikely that such a distant episode was perceived as a means to alleviate current moods. A mood-congruent recall explanation of the results is more difficult to dismiss, even if it does not seem as parsimonious as the one advanced in this research. To completely rule out mood-congruent recall, one would need a convincing assessment of the thoughts that subjects brought to mind as they were making their decisions (see, e.g., Fishbein and Middlestadt 1997). Further research is also needed to document the type of mental representations that people use when invoking experiential judgmental strategies such as the HDIF heuristic. Closer examination of these representations may help us relate the affect-as-information literature with research on the role of imagery processes in consumer decision making (see, e.g., MacInnis and Price 1987; McGill and Anand 1989). A bridge between the two streams of research may clarify when imagery processes are more likely to be invoked and how imagery-generated mental representations are interpreted and evaluated to make a decision.

To conclude, affect probably plays a more central role in consumer decision making than previously recognized. In the "How-do-I-feel-about-it?" heuristic, affect is the essential decision input. When consumers "feel like" engaging in certain consumption episodes, they are not just being emotional. They are making an informed decision, a decision that capitalizes on the information contained in their feelings.

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