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Does Involvement Moderate Time-Dependent Biases in Consumer Multiattribute Judgment?

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When consumers' judgments are delayed rather than made immediately after learning information about products and services, they tend to be positively biased. The study presents the results of a field experiment that examines the role of involvement in reducing, and even completely eliminating, this time-dependent positivity effect. Involvement was manipulated by means of availability information concerning a new movie delivery service among video store visitors. Our results showed the reduction in time-dependent positivity effect to be limited only to situations in which involvement is induced before or concurrently with the acquisition of product information. If involvement is induced only in delay, the positivity bias is observed under both low- and high-involvement conditions. It is shown that differences in delayed judgments are likely to stem from better recall of the original information by highly involved consumers. The time sensitivity has an important implication when shopping goals vary because in some instances consumers may want to accomplish the purchase of a product during the shopping tour whereas in other cases they may consider postponing it. Thus, companies may direct their efforts toward influencing immediate or delayed purchases, depending upon the judgment favorableness at the decision stage. J BUSN RES 1998. 41.95–103. © *1998 Elsevier Science Inc.*

Frequently, consumers' decisions to purchase products are not made concurrently with or immediately after acquiring product information. The delay between information acquisition and the decision to purchase may vary from very brief intervals (e.g., in the case of impulse buying or buying through telemarketing) to long intervals (e.g., when the actual usage need arises some time after occasional learning about brands, or when information acquisition involves comparison among brands offered in different stores or is communicated via different media).

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Recently Ganzach and Mazursky (1995) investigated the conditions that give rise to time-dependent biases in consumer multiattribute judgment. They tested the effect of time on product and service judgment. Immediate judgments (i.e., judgments which are made immediately after exposure to the information) were characterized by a negativity bias, a bias that leads judgments to be more negative than implied by an averaging model. On the other hand, delayed judgments were positively biased.

A number of explanations have been offered for these effects. Negativity bias in immediate judgment may result from perceiving negative information as being "too negative" due to contrast effect with a moderately positive reference level (e.g., Chaiken, 1980) or from the perception that negative information is particularly informative (Skowronski and Carlston, 1989). Conversely, positivity bias in delayed judgment may be the result of assimilation to a moderately positive reference level (Ganzach and Mazursky, 1995), or the result of better memory and better schemata (Meyer, 1987) for positive information. Evidence for the existence of a positive reference level can be found in studies showing that most individuals employ positive verbal expressions and positive ratings in their judgments of unknown others, a phenomenon that extends also to the description of events and objects in general (see Matlin and Stang, 1978, for a review). In addition, Meyer (1987) contended that people have better schemata for what constitutes a "good" product than for what constitutes a "bad" product. Thus, inaccessibility of attribute information in delay may lead to uncertainty regarding attribute values and "regression" toward the positive reference level; or it may result in positive attributes being better integrated and more accessible in delay.

One limitation of Ganzach and Mazursky's (1995) study was that it was conducted in a low-involvement judgment setting. In the two experiments reported in that article, the tasks required little or no commitment to the judgments. In that sense, the study did not reflect some important elements

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associated with real-life consumer decisions. Therefore, the purpose of the current research is to examine the effect of involvement on time-dependent biases in consumer judgment.

Involvement under Immediate and Delayed Conditions

We distinguish between two types of involvement in product judgment. In immediate involvement, consumers assign importance to the information concurrently with its acquisition. For example, in learning about the features of a new service, consumers may assign relatively high importance to the information if they know that the service is or will soon become available in their neighborhood (and assign low importance if they know that the service is not due to become available in their neighborhood). Below we use the following notation: Ti denotes the timing of involvement; Ti equals t_1 if involvement is immediate, that is, if it is induced concurrently with the acquisition of product information, and Ti equals t_2 if involvement is induced in delay.

In delayed involvement (Ti = t_2), the importance of the information becomes apparent to the consumer only some time after the acquisition of the information. For example, the consumers may become acquainted with the features of the service, but learn whether it will be offered for purchase in their neighborhood only after a delay. Note that the timing of involvement is not necessarily related to the timing of the judgment. The judgment may be made during information acquisition or only after a delay. Independently, the importance of the information may become apparent during information acquisition or only after a delay. We use the variable Tj to denote the timing of judgment; Tj equals t_1 when the judgment is made during information acquisition, and t_2 when it is made after a delay.

Effect of Immediate Involvement on Time-Dependent Biases

To date, involvement research has provided only limited insight into time-dependent biases (see Chaiken, 1980 and Park and Hastak, 1994, for comprehensive reviews). The major theme in this research stream is that in high involvement consumers engage more actively in comprehending and evaluating the message whereas in low involvement information processing is more shallow. Involvement studies have typically used methodologies that measure the effect of involvement on product evaluation in immediate judgments (i.e., at Ti = t_1 and Tj = t_1); namely, when judgments were made immediately after the delivery of the information.

In the present study we are interested in examining the effects of involvement on product evaluation under different delay conditions (i.e., immediate versus delayed judgment). Involvement may affect time-dependent biases in judgment in two ways. First, it may influence the initial level of judgment that is made in immediate judgment condition. In immediate judgments (Tj = t_1), negativity is likely to be more pronounced when involvement (at t_1) is high than when it is low, due to overweighting of negative information. Such overweighting may occur as a result of greater aversion toward negative features or as a result of the tendency to minimize false positive errors in the integration process (Maheswaran and Meyers–Levy, 1990; Wright, 1974; Ganzach and Krantz, 1991; Ganzach, 1993).

Second, it may affect the difference between immediate and delayed judgments by minimizing the positivity bias that typically occurs under low-involvement conditions. When involvement is high, people are likely to make spontaneous judgments that consist of abstractions of the original information. Such abstractions are well remembered (Kardes, 1986). Thus, the availability of such abstractions may also reduce the difference between immediate and delayed judgment when involvement is high. Note that in the absence of a blueprint indicating what is the true attitude, the time-dependent bias may stem either from the immediate judgment or from the delayed judgment. Furthermore, when involvement is high, enhanced elaboration of the information occurs at encoding (Petty, Cacioppo, and Schumann, 1983). Elaborative encoding of the information facilitates long-term persistence (Mazursky and Schul, 1988). Accordingly, when involvement is high, the positive time-dependent bias is likely to be minimized, or eliminated.

The upshot of the foregoing discussion on the effects of immediate involvement (involvement at t_1) can be divided into two statistical effects. First, in immediate judgments, high involvement should lead to less favorable judgments than low involvement. Second, an interaction effect is expected between involvement at t_1 (high versus low) and judgment measurement timing (that is Tj at t_1 versus t_2); the difference between immediate and delayed judgments is expected to be smaller under high involvement than under low involvement.

Effects of Delayed Involvement on Time-Dependent Biases

Additional insight into the effect of involvement on time-dependent biases may be gained by considering the timing in which involvement is induced. Involvement may be enhanced after consumers have already acquired knowledge about the features of the focal brand (i.e., at t_2) and not necessarily before or concurrently with it. For instance, numerous ads do not contain information about the availability of the advertised brand. To the extent that consumers are exposed to advertisement information but learn about its availability at some future time, involvement is enhanced in delay.

When information about the availability of the product is communicated in delay (i.e., at t_2), delayed high involvement is induced. In such cases, consumers may attempt to recollect

factual details about the product in forming their judgments. However, attempts to rely on factual details in delay are likely to result in a positivity bias if the initial information was encoded (at t_1) under low involvement (Ganzach and Mazursky, 1995). Under such conditions, factual information has already become less accessible and attribute information has been assimilated toward a positive reference level. As a consequence, delayed judgments (Tj = t_2) are likely to be less favorable when involvement is induced concurrently with information acquisition (i.e., at Ti = t_1) than when it is induced in delay (at Ti = t_2).

From the above, it follows that under low involvement, no differences in judgments are expected because of the timing of involvement manipulation. In contrast, under high involvement, delayed involvement judgments are expected to produce judgments that are more favorable than immediate involvement judgments. Accordingly, an interaction effect is expected within the delayed judgment condition between involvement level (low versus high) and the timing of the involvement manipulation (Ti = t_1 versus Ti = t_2).

Experiment 1

Method

DESIGN. The experiment involved six between subjects conditions. These conditions formed three groups, each made of a high-involvement condition and a low-involvement condition. In two of the three groups, involvement was manipulated concurrently with information acquisition (i.e., at Ti = t_1), while judgment was elicited either immediately (at Tj = t_1) or after a delay (at Tj = t_2). Thus, these conditions formed a 2 (immediate involvement: high versus low) × 2 (timing of judgment: t_1 versus t_2) subdesign. In the third group, the delayed involvement conditions, involvement was manipulated only after delay (Ti = t_2). These two conditions (obviously) involved only delayed judgments.

Overall then, high versus low involvement were contrasted for three groups. Assignment to the three groups was as follows: (1) Ti = t_1 and Tj = t_1; (2) Ti = t_1 and Tj = t_2; and (3) Ti = t_2 and Tj = t_2.

PROCEDURE. The chosen stimulus was a home delivery video service. A pretest among a sample consisting of 24 subjects drawn from the same population as in the study confirmed that none of the participants was familiar with a service such as that presented in the study (and in fact, such a service was not available in that area at the time of data collection) and the service was potentially involving (had it been offered) among the sampled population.

Visitors to a video store located in the neighborhood shopping area were approached by the experimenter who handed them a written description of the service. Subjects were informed that the service enabled subscribers to have video movies delivered to their homes within an hour after selecting the movie(s) from a catalog and calling the store. The same policy was effective also for returning the movies—within an hour and by the outlet's personnel.

Subsequently, all the participants were presented with ratings of such a service on six attributes (value, variety, customer care, delivery time, addition of new movies, and quality) allegedly taken from a consumer survey conducted in an area in which this service was available. The ratings were given on a 20-point Likert-type scale. Two sets of ratings were composed. In each set, half of the ratings were above the midpoint of the scale and half were below it. The ratings in each set represented a "reflection" of the other set (i.e., each attribute on one set was computed as 21 minus the value of the corresponding attribute in the other set). Assignment of sets to participants was randomized. This procedure insured that neutral attitudes be predicted by a compensatory model, regardless of the weights participants assigned to the different attributes.

A short questionnaire was subsequently administered among the participants assigned to the Immediate Judgment-Immediate Involvement conditions (Ti = t_1 and Tj = t_1, see dependent measures below). Before they were dismissed, these participants also answered questions relevant to the manipulation of involvement.

INVOLVEMENT MANIPULATION AND CHECK. Involvement was manipulated by means of availability information conveyed to the participants. Under the high-involvement conditions participants were told that this service would soon become available in the neighborhood. The information about the availability was stressed twice—once at the outset and then at the end of the message. In contrast, under the low-involvement conditions, the service was said to be available in a foreign country, and only on a trial basis.

The manipulation was checked among members of a group of 30 individuals drawn from the same population as in the study. Half of the sample was exposed to the high-involvement material and asked to make three judgments on 1–20 scales (anchored by 20 = very high and 1 = very low) reflecting three involvement facets: relevance, importance, and centrality. The second half was exposed to the low-involvement material and asked to make judgments on the same scales. The mean judgments were significantly higher for the high involvement group on all three judgments (mean = 18.06, s.d. = 2.3 and mean = 12.53, s.d. = 2.5, $t(28) = 6.1$, $p < .001$, for the relevance judgment, mean = 18.2, s.d. = 2.4 and mean = 12.8, s.d. = 2.4, $t(28) = 6.42$, $p < .001$, for the importance judgment, and mean = 18.47, s.d. = 2.5 and mean = 13.06, s.d. = 2.3, $t(28) = 6.9$, $p < .001$, for the centrality judgment, all in the comparison between high- and low-involvement conditions, respectively).

A measure of personal relevance was also included in the questionnaire administered among the study participants in the immediate conditions. In the high-involvement conditions

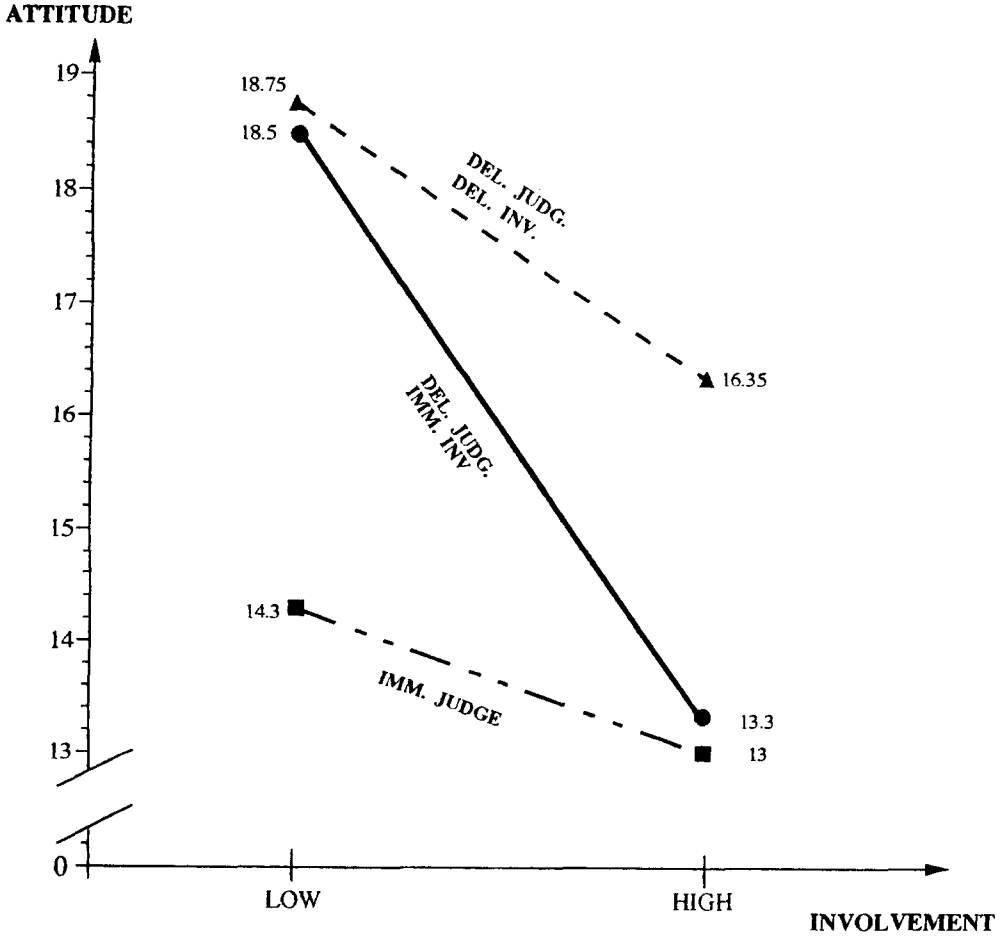

Figure 1. Mean attitudinal judgments as a function of involvement level, time of involvement inducement, and time judgment.

15 out of the 20 participants indicated that the service was personally relevant as opposed to only three out of 20 participants indicating it, in the low-involvement conditions.

DELAY. All of the participants assigned to the delayed conditions were asked to fill out a set of three filler questions before being dismissed. In addition, all the participants (including those in the immediate measurement conditions) were asked to provide their telephone numbers, although they were not specifically informed about possible revisit in the future.

About one week later (the intersession interval ranged between seven and nine days, depending upon visit convenience) participants in the delayed judgment conditions were visited in their homes. Half of them (i.e., the Delayed Judgment-Immediate Involvement) simply filled out the set of dependent measures while the remaining participants (i.e., the Delayed Judgment–Delayed Involvement) were first informed about the availability (unavailability) of the service and then provided their judgments. Eight subjects could not be reached or refused to participate in the delayed session. Their responses were discarded and other subjects were run instead. Separate analyses showed no systematic effects due to the exclusion of these subjects.

SUBJECTS. One hundred and twenty adults participated in the study. All were residents of a large neighborhood in a city with a population of approximately 500,000. The sample consisted of 54 females and 66 males. Because of the nature of the study, which entailed a one-week interval between responses, an attempt was made to minimize the opportunity for word-of-mouth communication among participants. Accordingly, only one member in a household qualified to participate.

DEPENDENT MEASURES. Participants were asked to provide two judgments. The first judgment was an evaluative judgment ("What is your overall evaluation of the service?"), the second was an intention judgment ("What is your intention to use this service?"). The judgments were made on a 1–20 numerical scale anchored by 20 = very high and 1 = very low (i.e., the scale was similar to the scale that appeared in the "consumer survey" results).

Results

The analyses were carried separately for the evaluative judgments and the intention judgment because previous research has shown that the two variables may be different in the context of involvement research (e.g., Petty, Cacioppo, and Schumann, 1983).

EVALUATIVE JUDGMENTS. The mean evaluative judgments by condition is given in Figure 1. Our first analysis focused on the effects of time of judgment and immediate involvement on global judgments. Specifically, it was hypothesized that when Ti = t_1, immediate evaluative judgments would be more negative under the high-involvement condition than under the low-involvement condition. Furthermore, it was expected that immediate and delayed judgments would differ only when involvement was low.

A 2 (immediate involvement: high versus low) × 2 (judgment timing: immediate versus delayed) ANOVA with the evaluative judgment as the dependent measure, showed that the interaction between immediate involvement (low versus high) and time of judgment (t_1 versus t_2) was significant ($F(1,76) = 41.5$, $p < .001$). In addition, both main effects were significant, thus revealing that delayed judgments were overall more positive than immediate judgments ($F(1,76) = 115.2$, $p < .001$) and that when involvement (induced at t_1) was low, judgments were more positive than when involvement was high ($F(1,76) = 41.5$, $p < .001$).

To test the hypothesized effects further within each condition, an analysis of the simple effects was subsequently conducted. As expected, within the immediate judgment conditions, high-involvement judgments were more negative than low-involvement judgments ($F(1,76) = 9.2$, $p < .003$). A similar effect was found within the delayed conditions ($F(1, 76) = 147.4$, $p < .001$).

Analysis of the simple effects applied within each involvement condition suggested that the interaction effect stemmed from the very small difference between immediate and delayed judgments within the high-involvement conditions ($F(1, 76) < 1$, n.s.) and from the large differences between immediate and delayed judgments within the low-involvement conditions. Within the low-involvement conditions, delayed judgments were more positive than immediate judgments ($F(1, 76) = 96.1$, $p < .001$).

A second analysis focused on the hypothesis that the time at which involvement is induced (Ti = t_1 versus Ti = t_2), has an impact on the formation of delayed judgments. To this end, the judgments at Ti = t_2, Tj = t_2) were contrasted with the judgments at Ti = t_1, Tj = T_2 (see Figure 1).

A 2 (involvement: high versus low) × 2 (time of involvement: immediate versus delayed) was performed with delayed judgment as the dependent variable. As hypothesized, the interaction between involvement and the time at which involvement was induced, was significant ($F(1,76) = 29.3$, $p < .001$). This interaction can be best interpreted in light of the significant simple effect of the involvement inducement time factor when involvement was high ($F(1,76) = 202.4$, $p < .001$), and the nonsignificant effect of this factor when involvement was low ($F(1,76) < 1$, n.s.) In addition, tests of simple effects showed that judgments were more positive under the low involvement conditions than under the high involvement conditions both when involvement was induced at t_1 and when it was induced at t_2, ($F(1,76) = 202.4$, $p < .001$ and $F(1,76) = 43.1$, $p < .001$, respectively).

INTENTIONS. The pattern of intention judgments was very similar to that of the evaluative judgments. Especially, when Ti = t_1 the interaction between involvement level (low versus high) and judgment timing (Tj = t_1 versus Tj = t_2) was significant (the means were 15.6, s.d. = 1.56, and 14.7, s.d. = 1.29, for the low and high involvement at Tj = t_1, respectively, and 18.8, s.d. = .98 and 14.5, s.d. = 1.67 for low and high involvement at Tj = t_2, respectively, ($F(1, 76) = 29.3$, $p < .001$).

Furthermore, the simple effects for intention showed similar patterns as those for evaluative judgments. Specifically, there was a tendency toward more negative intentions under the high-involvement than under the low-involvement condition ($F(1,76) = 4.1$, $p < .05$ and $F(1,76) = 93.8$, $p < .001$ under the immediate and the delayed conditions, respectively). However, the difference between low and high involvement was more substantial in the delay conditions. Although there was no difference between the immediate and delayed conditions in high involvement ($F(1,76) < 1$, n.s.), delayed intentions were more positive under the delayed conditions than under the immediate conditions ($F(1,76) = 51.9$, $p < .001$).

Similarly, the interaction of the time at which involvement was induced (Ti = t_1 versus Ti = t_2) and involvement levels (low versus high) was significant (the means within the delayed induced involvement were 19.1, s.d. = .71, and 16.3, s.d. = 1.18, for the low- and high-involvement conditions, respectively, ($F(1,76) = 8.2$, $p < .01$).

The analysis of the simple effects showed that under high involvement, intentions were more negative both when involvement was induced at t_1 ($F(1,76) = 125.6$, $p < .001$) and at t_2 ($F(1,76) = 51.4$, $p < .001$). As in the evaluative judgments, the interaction stemmed from (1) the lack of difference in low-involvement intentions ($F(1,76) < 1$, n.s.), and (2), the more positive intentions under the high-involvement conditions, when involvement was induced at t_2 compared with t_1 ($F(1,76) = 22.0$, $p < .001$).

Discussion

The substantial reduction in the positivity bias over time was limited, in Experiment 1, to situations in which involvement was high in the immediate judgment condition, namely, when involvement was induced concurrently with the acquisition of product information. There are two mechanisms by which involvement may mediate the effect of time-dependent biases.

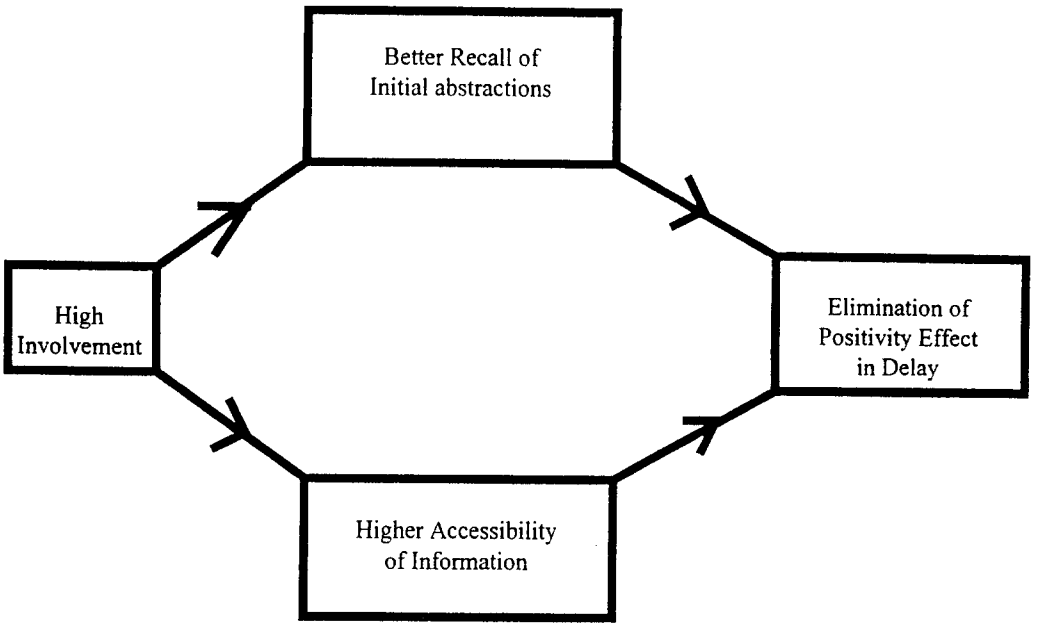

Figure 2. Mediation processes leading to the elimination of positivity effects in high involvement.

These mechanisms are depicted in Figure 2. First, high involvement at the encoding state enables consumers to engage in in-depth processing of attribute information (Schul, 1983; Kardes, 1986). As a result, attribute information is likely to remain accessible and the positivity bias is eliminated. Second, high involvement may lead to a higher tendency for generating abstractions at the time of the initial exposure to the information. Because such abstractions are well remembered and readily available (Craik and Tulving, 1975; Ganzach and Mazursky, 1995; Greenwald and Leavitt, 1984; Kardes, 1986), delayed judgments are more similar to initial judgments, and therefore less positive.

Experiment 2

In Experiment 2 we examined whether recall moderates the effect of immediate involvement on delayed judgments. In this experiment involvement was manipulated concurrently with information acquisition ($Ti = t_1$) while judgment and recall were measured in delay ($Tj = t_2$). We expected that the tendency to provide less positive judgments when involvement increases would also be associated with a better accessibility of attribute information, and therefore, with better recall.

Method

PROCEDURE AND DESIGN. Thirty-four students were recruited for the experiment as part of a course requirement. Subjects were run individually in a behavioral lab. They were told that the study was intended to obtain their judgments on a newly designed business program. They were presented with ratings of five attributes allegedly taken from other students familiar with the program. These included course load, the extent to which grades reflect knowledge, level of interest in the studies, the extent to which the knowledge they acquire is specific, and overall atmosphere. The ratings were given on a 9-point scale.

About half of the participants were informed that the study was associated with the redesign of business programs in Europe which was required as a consequence of the unification of Europe. According to the message, the European Community was conducting an international survey to obtain a feedback on their program. In contrast, the other participants were informed that this program was under consideration in their university and that their judgments might have an impact on their own study curriculum. These different messages constituted the manipulation of involvement. All the participants were asked to fill out a set of three filler questions before they were dismissed. A week later, they were called again to respond to another questionnaire.

DEPENDENT MEASURES. In the delayed measurement, participants were asked to make two judgments. The first judgment was an evaluative judgment ("What is your overall evaluation of the program?"). The other question was designed to check the manipulation ("How relevant is the program for you?"). In addition, they were presented with the attributes and scales which were displayed in the same format as in the ratings initially presented to them, but without the ratings themselves. The participants were asked to recall the original ratings of the "other students" by marking them on the attribute scales.

Results

INVOLVEMENT MANIPULATION CHECK. The measure of personal relevance showed that participants who were initially informed that the program might be applied in their university

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judged it as relevant (mean = 6.91, s.d. = 1.75). Among those who were initially informed that the program was considered in Europe, the average relevance measure was lower (mean = 4.81, s.d. = 1.1, $t(32) = 3.8$, $p < .001$).

EVALUATIVE JUDGMENTS. The overall evaluative judgment indicated that the program was more favorable among low-involvement participants (mean = 6.17, s.d. = 1.14) than among the highly involved participants (mean = 5.36, s.d. = .78, $t(31) = 2.39$, $p < .03$).

RECALL. The sum of the absolute values of the deviation from the actual attribute values (the values given by the "other students" which was presented at the outset of the experiment) served as an index for recall accuracy. Accordingly, the lower the index, the better the recall. Comparison between the low- and high-involvement groups showed that recall accuracy was higher in the high-involvement group (mean = 2.13, s.d. = 1.75) than in the low-involvement group (mean = 5.75, s.d. = 5.07). The difference between the two means was significant ($t(32) = 2.85$, $p < .01$).

This index was then decomposed into recall of negative attributes versus positive attributes in order to measure whether recall accuracy is sensitive to the sign of the attributes. Within the negative attributes the recall accuracy index was higher among highly involved participants (index = .88, s.d. = 1.96 among highly involved participants, compared to 4.62, s.d. = 5.18 among low-involvement participants, $t(32) = 2.84$, $p < .01$). Thus, negative information was recalled better among highly involved participants. This pattern of difference was also obtained when the index was computed only within the positive attributes. The index of recall accuracy among highly involved participants (1.50, s.d. = 1.61) was lower than that which was obtained among low-involvement participants (3.75, s.d. = 3.45, $t(32) = 2.48$, $p < .02$). These findings indicate that attribute information was more accessible in delay among highly involved participants than among low-involvement participants and that this superior accessibility can be generalized to both negative and positive attributes.

In both immediate and delayed conditions participants were asked to write down the thoughts they had about the program. Because participants' thoughts did not include simple repetitions of the scale values, their responses served as a measure of abstractions (Chattopadhyay and Alba, 1988). The sum of the thoughts served as a dependent variable in an ANOVA with a delay factor (immediate versus delay) and involvement (high versus low) as dependent variables. The only significant effect in this analysis was the main effect due to delay—more thoughts were listed at t_1 (mean = 6.38, s.d. = 3.18 in the high-involvement condition and mean = 6.17, s.d. = 2.66 in the low-involvement condition) than at t_2 (mean = 3.75, s.d. = 2.23 in the high-involvement condition and mean = 3.57, s.d. = 2.23 in the low-involvement condition, $F(1,32) = 16.5$, $p < .001$). The involvement manipulation did not have any effect on the number of thoughts ($F < 1$), and the correlations with both the judgment and the measure of involvement (i.e., the manipulation check) were not significant. These findings do not support the notion that the effect of involvement on delayed judgments is mediated by the generation of abstractions.

General Discussion

The results of Experiment 1 indicate that the positivity bias, which characterized delayed judgments in low-involvement situations, is eliminated when involvement is high. Judgments made in delay were more favorable than in immediate judgments only under the low-involvement conditions. When involvement was high, the difference between immediate and delayed judgments was minor and not significant.

In contrast, when involvement is induced only in delay, attribute information is already positively biased (because memory of factual information becomes less accessible and assimilated toward a positive reference level) and thus, subjects' attempts to diligently consider attribute information yield judgments that are positively biased. Consequently, the positivity bias is observed both under low and high involvement when involvement is induced in delay.

Experiment 2 investigated more directly why reduction in positivity is expected in delayed judgments. Recall accuracy was higher among highly involved participants, indicating that the original information which underlied their judgments, was more accessible. Consequently, the higher accessibility by highly involved participants gave rise to judgments that were less positively biased in delay.

The rationale for examining a wider time span is quite straightforward. The events which are likely to lead to product purchase in reality (i.e., involvement inducement, the communication of brand information, and brand choice) do not always occur contemporaneously. The need to purchase a new product may arise some time after the exposure to the original product message and the enhancement of involvement (e.g., due to availability constraints). Alternatively, enhancement of involvement may occur some time after the original features have become known. Recent studies on abstraction, inference formation, and other delay effects, suggest that controlling for the sequence and the timing of these events may have substantial theoretical and empirical implications (e.g., Chattopadhyay and Alba, 1988).

The involvement manipulation employed in this study was local availability/nonavailability of the service. This type of manipulation has been successfully used in some of the major studies in this area of research (e.g., Petty, Cacioppo, and Schumann, 1983), although other manipulations (as well as other product and service categories) should also be examined before broader generalizations are made. Nevertheless, the findings of this study carry a number of important implications.

One implication concerns the nature of the judgment goal. In some instances, consumers may engage in entertainment shopping, without any particular purchase goal in mind. Un-

der this low-involvement condition, their judgments at some future stage about previously seen merchandise may be biased positively. On the other hand, if their shopping tour is planned and motivated by the need to purchase a particular product or brand (i.e., high involvement), then judgments made at a future stage are not likely to deviate substantially from those made immediately after obtaining the information. Accordingly, the goal set at the state of acquiring information may have long-term implications with respect to future judgments; if, at the outset, the consumer is not goal oriented, his/her future judgments may be positively biased compared to having a specific goal of choosing a particular brand for a future purchase.

Another implication concerns the managerial decision to influence the consumer's involvement level concurrently with the delivery of brand information. According to the findings of the present study, delaying involvement inducement until after information has been conveyed, via advertisement or in-store promotional activity, may have important long-term implications. Procedures for enhancing involvement have been extensively discussed and demonstrated by Assael (1984). An ideal campaign schedule may be composed of two sequential stages. In the first stage, information about the brand should be provided and the involvement and relevance to the consumer be attenuated (e.g., "a new kind of camera is being offered for sale in Japan [or any foreign country] but it will not be available in our country in the foreseen future"). In the second stage, information about the availability of the product and its relevance to the consumers should be provided. According to the findings obtained in the present study, judgments made in the second (delayed) stage will be relatively favorable despite the heightened involvement level created at this stage by the campaign.

Managers might also consider two alternative selling strategies by focusing on the level of induced involvement; on the one hand, they might attempt to delay inducing involvement to achieve the improved judgment, as suggested above. On the other hand, they might prefer to induce involvement immediately upon exposure to the product. The latter strategy may serve to insure immediate sales and reduce uncertainty regarding future sales levels. At the same time, enhancing involvement in the immediate stage may result in consumers evaluating the product and deciding not to purchase it. Awareness of these alternatives is likely to assist managers in designing their selling strategies and assessing the profitability of each.

In sum, consumer motivation (measured by level of involvement) to process information and form a judgment appears to affect the encoding and retrieval of product information during the formation of judgments. Past marketing literature has identified the involvement construct as an important mediator and measured the effects of involvement on message processing, outcome responses, and overall judgments. The present study suggests that this view of involvement should be broadened beyond its static orientation by including time-based features. Involvement has typically been assumed to be a background factor, serving only as a context for encoding new brand information; the present study recognizes its role in extended time frames and claims that the timing of the inducement of involvement is critical in the formation of final judgments and purchase decisions.

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