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Antecedents of Positivity Effects in Social Versus Nonsocial Judgments

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The positivity effect in judgments of personal experiences is a well-established finding. In this article, we posit that this effect may not manifest in the case of product experiences We base this on literature that suggests that social stimuli (such as personal experiences) are more ambiguous than nonsocial stimuli (such as experiences associated with products) Because of this ambiguity, construal processes are more likely to occur for social versus nonsocial stimuli, increasing the likelihood of the operation of self-serving theories in social judgments. Experiment 1 reveals that positive personal experiences are more likely to be retrieved than negative personal experiences, however, there is no difference in recall of positive and negative product experiences Experiments 2 and 3 extend this finding to judgments of past and future experiences, respectively, and replicate the better-than-average effect for personal, but not product, experiences Experiment 4 then examines the motivational underpinnings of construal processes and shows that construals can operate even for relatively unambiguous product experiences when participants believe such experiences implicate the self

Research in consumer behavior has been inspired by social psychology and social cognition to a great extent (cf. Jacoby, Johar, & Morrin, in press). Among others, theories of memory, decision making, and persuasion have all been applied in the

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consumer domain. Given the inherent differences in the issues examined, consumer researchers have also recognized that theories of social psychology may not necessarily apply to consumer behavior (e.g., Kardes, 1986). Social psychology is concerned with people and their relationships with each other, whereas consumer behavior is often concerned with people's interaction with products. As several psychologists have noted, people and objects differ in many ways, and different approaches are needed to examine each of them (e.g., Fiske & Taylor, 1991; Lingle, Altom, & Medin, 1984; Wyer & Srull, 1986). In this research, we highlight one key difference between persons and products—ambiguity inherent in the nature of personal versus product experiences—and examine its effects on memory and judgments.

Lingle et al. (1984) suggested that judgments of social stimuli (i.e., people) are likely to depend on inferred, abstract information (e.g., traits), whereas judgments of nonsocial stimuli (e.g., products) are likely to depend on concrete attributes. One reason for this discrepancy in impression formation processes is that social stimuli are inherently more ambiguous than nonsocial stimuli. Such ambiguity is likely to result in the operation of construal processes such that social judgments of oneself and other people are constructed subjectively at the time of encoding and retrieval (Dunning, Meyerowitz, & Holzberg, 1989; Griffin & Ross, 1991). As Griffin and Ross noted: "People are governed not by the passive reception and recognition of some invariant objective reality, but by their own subjective representations and constructions of the events that unfold around them" (p. 320).

In general, construals tend to be adaptive, in that they reflect favorably on the self (Dunning et al., 1989). Dunning et al. examined the role of construal processes in self-evaluations and found that the ambiguity inherent in trait labels such as *sophisticated* allows their application to oneself through a process of construal of the definition of the trait. This phenomenon could explain people's tendency to provide self-serving assessments that appear to be objectively inaccurate. Thus, people are not simply lying about their traits and abilities but are construing or defining the traits in a way that is congruent with their own capabilities. Given the nature of their construals, people's self-evaluations may be accurate

Such construal processes may partially explain the finding that, when asked to recall events, people are more likely to recall positive experiences from their past than negative ones (e.g., Brewer, 1986, 1988; Wagenaar, 1986; White, 1982) In simple terms, people tend to put a positive spin on their life experiences, interpreting ambiguous experiences in a positive rather than a negative way. Such construals could occur at the time of the experience or at the time of retrieval of the experience However, such construal processes are unlikely to operate for unambiguous non-social experiences that are clearly positive or negative. For example, most of our experiences with products are neutral, some are clearly positive, and some are clearly negative. Therefore, product experiences are less likely to be construed during encoding or recall.

We test this basic notion in Experiments 1 through 3, in which we manipulate the type of experience to examine whether positivity effects are more likely in personal rather than product experiences. Experiment 4 then examines motivational determinants of positivity and demonstrates that the positivity effect can occur even for nonambiguous stimuli such as products.

The specific objectives of this article are as follows:

1. To demonstrate that the positivity effect observed in judgments of personal experiences is not likely to manifest in judgments of product experiences, indicating that construal processes operate only for ambiguous stimuli. Experiments 1 through 3 demonstrate that the nature of the stimuli—social (personal experiences) versus nonsocial (product experiences)—moderates the positivity effect found in recall (Experiment 1) and in judgments related to the past (Experiment 2) and future (Experiment 3).

2 To examine whether the positivity effect may carry over to product-related judgments when such judgments have implications for one's self-evaluations (Experiment 4).

EXPERIMENT 1: CONSTRUAL PROCESSES IN RECALL

The positivity effect in the recall of experiences has been well-documented. Using various methodologies, research has converged on the finding that people tend to recall more positive than negative experiences (Brewer, 1986, 1988; Wagenaar, 1986; White, 1982). As discussed previously, the nature of one's life experiences is often ambiguous, and people may construe their own past to have been more positive than negative. For example, a tragedy is sometimes viewed as an event that builds character. Such construal processes could operate in two ways First, they may result in biased encoding of personal experiences such that most experiences are stored with a positive valence tag. Second, they may result in biased retrieval such that personal experiences are recalled as being more positive than they actually were. However, people's experiences with products are unlikely to elicit much construal at encoding or at retrieval because they are mostly unambiguous Hence, product experiences are unlikely to show a positivity effect in recall. Experiment 1 was designed as a simple test of this issue

Method

Design. We manipulated two levels of one variable (i.e., the type of experiences recalled) between subjects: personal experience and product experience.

Participants and procedure. One hundred thirty-five students from a large northeastern university participated in this experiment for partial course credit. Participants were instructed to do the following:

> Think about specific PERSONAL EXPERIENCES you yourself have had in different dimensions of life in the last five years. [Participants in the product experience group were instructed to "think about specific PRODUCT EXPERIENCES you yourself have had with different product categories in the last five years."] Write down as many of these experiences as you can remember in the order in which you think of them. Please write each experience on a different line.

Participants asked to list personal experiences wrote about such events as their "first kiss," "graduating from high school," and so forth; those asked to list product experiences wrote about "buying a laptop," "enjoying listening to music on their music system," and so forth. The average number of experiences reported per participant was 5.70 ranging from 1 (*minimum*) to 10 (*maximum*), and there was no difference between personal and product experience conditions.

At the end of this self-paced task, participants were instructed as follows:

> "Now go back to the previous page and rate each experience that you wrote down on the scale given below Enter the appropriate number from the scale in parenthesis next to the experience you wrote down "

They were given a scale ranging from 1 (*extremely negative*) to 7 (*extremely positive*). The midpoint of the scale, which was 4, was designated as neutral. We did this so that we could measure participants' perceptions of the valence associated with each experience recalled. Because this measure was collected after the recall task, there was no influence of the rating measurement on what was recalled.

Results

Proportion of positive versus negative recalled experiences. Because 4 on the 7-point semantic differential scale was marked neutral, we classified experiences rated 1 through 3 as negative and experiences rated 5 through 7 as positive. For each participant, we computed the percentage of positive and negative experiences mentioned. Our hypothesis would be supported if the percentage of positive experiences recalled is higher in the personal experience condition than in the product experience condition. The averages of these percentages in each condition are presented in the top half of Table 1.

As can be seen in Table 1, participants retrieved more positive than negative experiences in the personal experience condition but retrieved more negative than

TABLE 1
Experiment 1: Construal Processes in Recall

	Product			*Personal*		
	%	*M*	*SD*	%	*M*	*SD*
Percentage of all experiences mentioned by each participant (average across participants in each condition)						
Negative (1–3 rating)	44.5$_a$			34.4$_a$		
Positive (5–7 rating)	37.5$_a$			55.1$_b$		
Mean rating (1 = negative; 4 = neutral, 7 = positive)						
First experience mentioned		3.06$_a$	1.71		4.25$_b$	2.32
Average of all experiences mentioned		3.89$_a$	1.24		4.44$_b$	1.13
n	66			69		

Note Percentages within a column add up to less than 100 because the percentage of experiences rated 4 on the 7-point scale are not presented. Percentages with different subscripts within a column are significantly different from each other at $p < .05$. Means with different subscripts within a row are statistically significant from each other at $p < .05$.

positive experiences in the case of product experiences. We conducted an analysis of variance (ANOVA) on the arcsine transformation of the percentages with the percentage of positive and negative experiences as a within-subject factor and the product versus personal experience condition as the between-subjects factor. The two main effects were not significant (*ps* > .15), but the interaction effect was significant, $F(1, 131) = 8.27$, $p < .01$, indicating that, as predicted, the valence of experiences differs in the general personal versus product conditions. In support of our hypothesis, follow-up contrasts revealed that a greater proportion of experiences reported were positive rather than negative in the personal experience condition (55.1% vs. 34.4%), $F(1, 131) = 9.47$, $p < .01$, but not in the product experience condition (37.5% vs. 44.5), $F(1, 131) = 1.03$, $p > .3$.

Mean valence of the recalled experiences. We used two measures. First, we examined the mean rating of the first experience retrieved in each condition. Because the first experience indicates the one that is most accessible in memory (Taylor & Fiske, 1981), an analysis of the valence of this retrieved experience would indicate the accessibility of positive versus negative experiences in memory. We expected the mean valence associated with product experiences to be significantly lower than the mean valence associated with personal experiences. The pattern of means supports this hypothesis (see the bottom half of Table 1). A one-way ANOVA revealed that the mean valence of the first experience reported in the general product condition ($M = 3.06$) was significantly lower than that associated with a personal experience ($M = 4.25$), $F(1, 132) = 11.18$, $p < .01$.

Second, we computed an average rating for each participant across all the experiences reported and averaged this across participants in each experimental condition. This measure indicated the overall accessibility of positive versus negative experiences in memory. The mean rating of product experiences (M = 3.89) was significantly lower than that for personal experiences (M = 4.44), $F(1, 132) = 7.28$, $p < .01$ (see the bottom half of Table 1).

Discussion

The results of Experiment 1 reveal that the positivity effect occurs in recall of personal experiences but not in recall of more unambiguous product experiences Participants were asked to recall as many experiences as they could from the past 5 years, permitting a great deal of subjective selectivity in the task. As an anonymous reviewer noted, the lack of a positivity effect in recall of product experiences despite this selectivity is indeed surprising.

These results provide preliminary support for a construal process partially underlying the positivity effect. Construal could have occurred at the time of recall or at the time of rating the recalled experiences. Two possibilities exist: (a) Participants recalled more positive than negative personal experiences because they truly experienced more positive than negative experiences, or (b) participants were motivated to recall more positive than negative personal experiences to maintain self-esteem (Kunda, 1987; Taylor & Brown, 1988) but were not similarly motivated in the case of product experiences. Experiments 2 and 3 control for actual prior experiences by asking participants to compare their experiences with those of others, and Experiment 4 examines the motivational aspects of the positivity effect.

EXPERIMENT 2: CONSTRUAL PROCESSES IN JUDGMENT OF THE PAST

In addition to positivity in recall, research has also found that people's self-perceptions are, in general, self-enhancing. This finding has been reported in contexts ranging from personality assessments, illusion of control over chance events, and assessments of the future (for a review, see Taylor & Brown, 1988). Some researchers documented this positivity effect by examining the judgments that people make about themselves vis-à-vis other people (cf. Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995) For example, people perceive themselves to be better than average on trait ratings (Dunning et al., 1989) as well as on behavior ratings (Allison, Messick, & Goethals, 1989).

Past research has not examined people's perceptions regarding the overall valence of all their experiences. Based on the positivity in people's specific

judgments, we expect that people would consider their own past as having been more positive than other people's past. This construal is possible because past life experiences are ambiguous and people therefore have the latitude for such construal; however, people are less likely to construe their unambiguous past product experiences as being more positive than those of others. Because each person should have had as many positive or negative experiences as their peers (on average), utilizing such a comparison circumvents the problem faced in Experiment 1 regarding the true number of positive and negative experiences in memory.

The tendency discussed earlier has been labeled the *better-than-average effect* and has been attributed to the tendency to selectively recruit information that favors oneself (Perloff & Fetzer, 1986). Product experiences do not implicate the self as much as personal experiences; hence, this tendency should be attenuated. Alicke et al. (1995) found support for the idea that the better-than-average effect depends on the level of abstraction of the target of comparison—people assume that they are better than others, but this assumption no longer holds in the case of real targets. Other research has also demonstrated that the standard of comparison matters and that people anchor on their judgments about themselves more when they form a judgment about a close other (see Menon, Bickart, Sudman, & Blair, 1995). The difference between people's ratings of themselves and of average others is greater than the difference between self-ratings and ratings of a best friend (Menon, Raghubir, & Schwarz, 1995; Raghubir & Menon, in press). We therefore expect to obtain a similar result for judgments of past personal experiences. However, product experiences should not be subject to these construal processes.

Method

We used a 2 × 3 mixed design. Type of experience was a between-subjects factor and was manipulated at two levels: personal and product Target person was a within-subject factor counterbalanced across participants and was manipulated at three levels: self, best friend, and average undergraduate. We used one's best friend as a manipulation of a similar other, and we used an average undergraduate student at the university as a manipulation of a less similar other. These target persons have been used in previous research as a point of comparison to oneself in establishing biases in the response process (e.g., Menon, Raghubir, et al , 1995; Perloff & Fetzer, 1986; Raghubir & Menon, in press; Weinstein, 1980). The comparison of oneself is to another person in the same social category who can be expected to have the same percentage of positive experiences as oneself.

Forty-nine undergraduate students enrolled in an introductory marketing course at the business school of a major northeastern university participated in this experiment for partial course credit. They were randomly assigned to the product versus personal experience conditions. We used participants' perceptions of the past as the dependent measure. Therefore, participants were told the following:

> This is a study about any kind of personal [or "product"] experiences that you and people like you have had. Out of every 10 events [or "experiences you have had with products"] in your life, how many events would you classify as pleasant in nature?

The students were also asked this same question about their best friend and then about the average undergraduate student. (Half the participants were asked for judgments related to the self first, best friend next, and the average undergraduate last, whereas the other half were asked about the average undergraduate first, best friend next, and the self last. Because there were no order effects, this factor was not used in the analysis.) Then, they rated the similarity of the two other target persons (i.e., best friend and average undergraduate) to themselves: "On a scale of 1 to 7 where 1 is 'not at all similar' and 7 is 'extremely similar,' how similar would you rate the following people to yourself?"

Results

Manipulation checks. Based on the procedure used by Menon, Raghubir, et al. (1995), and using the previously mentioned 7-point scale, we elicited the degree to which participants perceived the best friend and the average undergraduate student as being similar to themselves at the end of the experiment. A 2 (best friend vs. average undergraduate) × 2 (personal vs. product) ANOVA revealed that the main effect of target person was significant, $F(1, 47) = 50.27$, $p < .01$, with the best friend being rated as more similar to oneself ($M = 4.86$) than the average undergraduate ($M = 2.67$). No other effect was significant. Therefore, the manipulation worked as intended.

Moderation of the positivity effect. We expected the two-way interaction to be significant in a 2 (experience) × 3 (target person) ANOVA such that the estimates of positive personal experiences are greatest for oneself, followed by one's best friend, and then the average undergraduate student. Product experiences were not expected to differ across target persons. As expected, this interaction was significant, $F(2, 94) = 4.14$, $p < .01$ (see Figure 1). The main effect of target person was also significant, $F(2, 94) = 4.84$, $p < .05$, but the main effect of experience was not ($p > .10$). Planned contrasts indicated that the interaction was driven by the disparate means in the personal experience condition ($M = 5.84$, 5.36, and 4.52, for self, best friend, and average undergraduate, respectively): For self versus best friend, $F(1, 47) = 9.86$, $p < .01$; for best friend versus average undergraduate, $F(1, 47) = 8.19$, $p < .01$; for self versus average undergraduate, $F(1, 47) = 12.6$, $p < .01$; and for overall simple effect of target person, $F(2, 94) = 9.13$, $p < .01$. The difference across target persons was not statistically significant for product experiences ($M =$

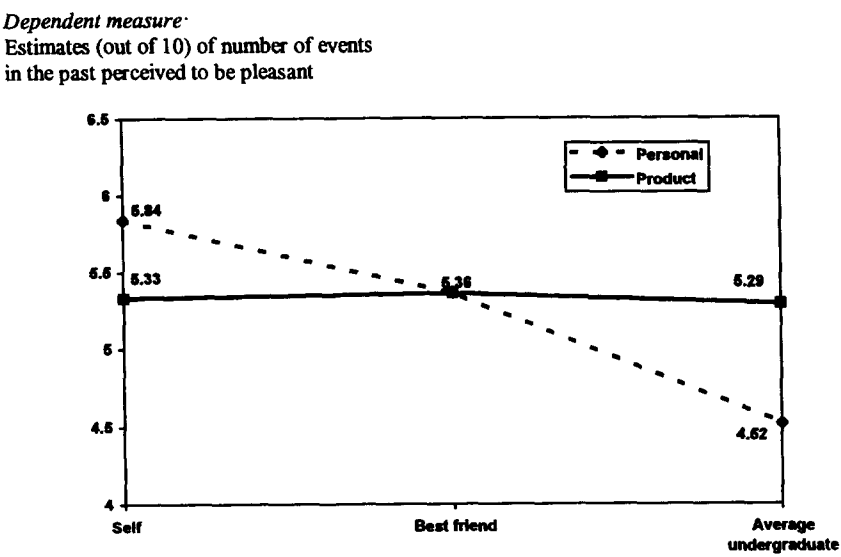


FIGURE 1 Construal processes in judgments of the past for Experiment 2

5 33, 5.36, and 5.29, for self, best friend, and average undergraduate, respectively; contrast Fs < 1.0, ps > .5). The data, therefore, supported our hypothesis.

Discussion

When the stimuli are ambiguous, as is the case with social judgments related to personal experiences, construal processes operate that result in the self being perceived as better than average. This leads to a positivity effect. However, when the stimuli are nonsocial and less ambiguous, these effects do not manifest.

One of the alternate explanations for the existence of the positivity effect in the literature on recall in autobiographical memory is that people experience more positive than negative experiences and that their recall accurately reflects the relative numbers of positive and negative experiences in memory. Researchers have invoked this alternate explanation when discussing the use of life-event recall measures to assess long-term subjective well-being (e.g., Seidlitz & Diener, 1993). If this were the case, the tendency of participants to report more positive than negative events in the case of personal experiences may not be a positivity effect after all but may just be a true reflection of the relative numbers of these events that are stored in memory. The relative number of positive and negative experiences stored in memory may itself reflect motivated encoding of experiences as being positive rather than negative. This may not hold for product experiences; people

may not exhibit such an encoding bias because the consequences of negative product experiences are not as severe as those of personal experiences. Thus, the actual valence of personal and product experiences stored in memory may be reflected in the recall task used in Experiment 1. The findings of Experiment 2 rule out this alternate explanation that the positivity effect is only a reflection of the truth. The comparison of estimates of the number of positive events experienced by oneself versus another circumvents the problem of actual number of positive events in memory.

As an anonymous reviewer noted, the frequency judgment task used in this experiment is related to the recall task used in Experiment 1. When asked to make such estimates, people may try to actively sample from their memory, or they may rely on the ease with which different experiences come to mind (the availability heuristic). The results reveal that only about half of one's product experiences are positive and support Folkes's (1988a) contention that use of the availability heuristic results in overestimation of negative product experiences compared to positive ones.

The next question that arises concerns the nature of the positivity effect for negative personal versus product judgments. Do people perceive themselves as being less susceptible to negative events than others? Furthermore, do the findings obtained so far translate to the domain of judgments of the future? These are the issues addressed in Experiment 3.

EXPERIMENT 3: CONSTRUAL PROCESSES IN JUDGMENTS OF THE FUTURE

Construal processes can explain people's recall and judgments regarding their past experiences as well as predictions of the future (Dunning, Griffin, Milojkovic, & Ross, 1990; Griffin, Dunning, & Ross, 1990; Vallone, Griffin, Lin, & Ross, 1990). Griffin and Ross (1991) noted two aspects of the construal problem as it relates to behavioral prediction. First, to predict one's own or another person's reaction to a situation, one must construe the content and context of the specific situation about which a judgment is being made. Second, one must construe the meaning of the situation for the actor (oneself or another target person). This stream of research has generally found that people's construals fail to make adjustments for uncertainty, resulting in overconfidence relative to objective accuracy in predictions

In terms of valence, extant literature also indicates that people have an illusion of control over future events and tend to assess their future positively (e.g., Weinstein, 1980, 1983, 1984). People appear to construe mostly positive future situations for themselves and less so for others. Underlying such construal lies a motivation to maintain or enhance self-esteem (Taylor & Brown, 1988). For example, Weinstein (1984) found evidence that people unrealistically underestimate their vulnerability to negative events such as alcoholism and drug addiction.

Weinstein (1980) also observed that people "expect others to be victims of misfortune, not themselves. Such ideas imply not merely a hopeful outlook on life, but an error in judgment that can be labeled *unrealistic optimism*" (p. 806). Specifically, Weinstein found that people estimated the likelihood of something pleasant happening (e.g., having a gifted child) as greater for themselves than their peers, whereas they estimated the likelihood of something negative happening (e.g., having trouble finding a job) as lower for themselves than for their peers. Similar effects have been demonstrated for predictions of other negative events such as becoming ill, getting mugged, or having a drinking problem (Perloff & Fetzer, 1986), having an accident (Robertson, 1977), and getting depressed (Kuiper, MacDonald, & Derry, 1983). Similarly, Raghubir and Menon (in press) demonstrated that people tend to judge the risk of other people contracting AIDS as higher than their own.

This literature, together with the differences discussed previously between social and nonsocial stimuli, suggests that results from Experiment 2 regarding positive experiences should carry over to judgments of the future such that predictions of personal (but not product) experiences display a positivity effect. Extending the findings of Experiment 2, we also expect a positivity effect in predicting future negative experiences for personal (but not product) experiences.

Specifically, the person about whom judgments are being formulated is likely to moderate the effects of the type of experience in the manifestation of the positivity effect such that the following occurs for personal and product experiences: For personal experiences, judgments of the likelihood of positive events will be greatest for self, followed by a similar other, and a less similar other, and judgments of the likelihood of negative events will be greatest for a less similar other, followed by a similar other, and then the self For product experiences, judgments of the likelihood of positive and negative events is likely to be invariant across the three target persons.

Method

We used a 2 × 2 × 3 mixed full-factorial design. Type of experience was a between-subjects factor and was manipulated at two levels: personal and product. Valence of the experiences was a between-subjects factor and was manipulated at two levels: positive and negative. Target person was a within-subject factor counterbalanced as in Experiment 2 and was manipulated at three levels: self, similar other, and less similar other.

One hundred five undergraduate students enrolled in an introductory marketing course at the business school of a large northeastern university participated in this experiment for partial course credit. They were divided into groups of 15 to 20 people. On arrival, each participant was randomly assigned to one of the four

between-subjects experimental cells. We used predictions of the future as the dependent measure. Participants were first asked:

> On a scale of 1 to 7 where 1 is "not at all likely" and 7 is "extremely likely," what would you estimate is the likelihood that the following people will have **pleasant** [or **unpleasant**] events happen to them in their **personal life** [or **product experiences**] in the future?

They were asked to report this likelihood for themselves, their best friend, and the average undergraduate student. (Because the order of the elicitation, that is, self first versus average undergraduate first, did not make a difference, we did not include this factor in any further analysis.) Next, as in Experiment 2, we elicited similarity ratings of the target other person to oneself. Participants then took part in another unrelated experiment; thereafter, they were debriefed and dismissed.

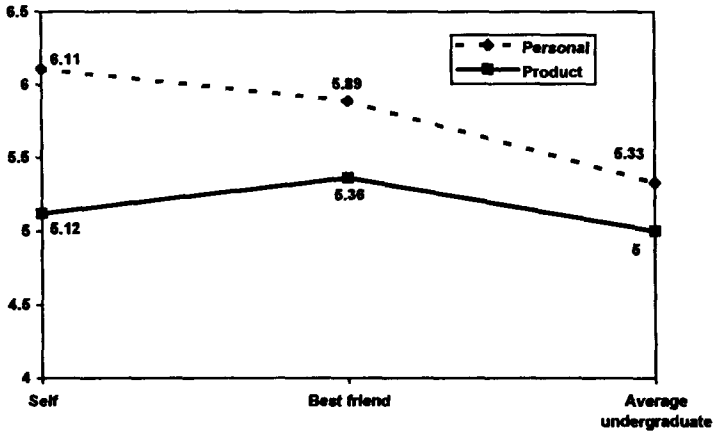
Results

Manipulation checks. The manipulation of the similarity of the target person to oneself worked in the manner intended. A 2 × 2 × 2 multivariate analysis of variance indicated that our manipulation was significant, as was evinced by the main effect of target person similarity to self, $F(1, 101) = 102.91, p < .01$, with best friend ($M = 5.36$) being rated as significantly more similar to oneself than the average undergraduate student ($M = 3.70$). No other effect was significant ($ps > .05$)

Moderation of the positivity effect. Support for our prediction required the following pattern of results: For personal experiences, estimates of likelihood of a positive event should be greater for oneself than others, and estimates of a negative event should be less for oneself than others. For product experiences, there should be no differences across target persons. In sum, a three-way interaction between the factors was predicted

We conducted a 2 × 2 × 3 overall ANOVA using the full mixed design, that is, type of experience and valence were between-subjects factors and judgments about the three people was the within-subject factor, with prediction of the future as the dependent measure As expected, the analysis revealed a significant three-way interaction effect, $F(2, 202) = 4.11, p < .05$ (see Figure 2 for means). Furthermore, when we examined the two-way interactions between valence and target person in the two type of experience conditions, we found that the interaction was significant for personal experiences, $F(1, 51) = 10.30, p < .01$, but not for product experiences, $F(1, 50) = 1.43, p > .10$. The pattern of means presented in Figure 2 support our prediction.

Dependent measure: Likelihood on a 7-point scale of a positive personal vs product experience



Dependent measure: Likelihood on a 7-point scale of a negative personal vs product experience

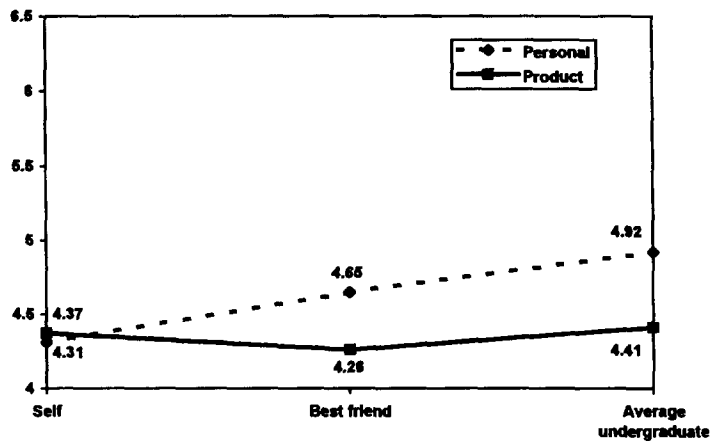


FIGURE 2 Construal processes in judgments of the future for Experiment 3

For personal experiences, participants predicted a higher likelihood that they would have more positive experiences than their best friend or the average undergraduate ($M = 6.11, 5.89$, and 5.33, for self, best friend, and average undergraduate, respectively), $F(2, 208) = 6.90$, $p < .01$. Planned contrasts revealed that all three pairs were significantly different from each other: For self versus best friend, $F(1, 104) = 7.51$, $p < .01$; for best friend versus average undergraduate, $F(1, 104) = 6.34$, $p < .01$; and for self versus average undergraduate, $F(1, 104) = 12.34$, $p < .01$. Furthermore, they reported a lower likelihood of experiencing negative personal events than the other two target persons ($M = 4.31$, 4.65, and 4.92, for self, best friend, and average undergraduate, respectively), $F(2, 208) = 3.83$, $p < .01$. Planned contrasts revealed that the difference between the estimate for the self was significantly different versus best friend, $F(1, 104) = 6.63$, $p < .01$, and versus the average undergraduate, $F(1, 104) = 7.10$, $p < .01$, but the estimate for best friend versus average undergraduate was not, $F(1, 104) = 1.37$, $p > .10$.

On the other hand, for product experiences, there were no differences between means. For positive product experiences ($M = 5.12$, 5.36, and 5.00, for self, best friend, and average undergraduate, respectively), $F(2, 208) = 1.23$, $p > .10$; and for negative product experiences ($M = 4.37$, 4.26, and 4.41, for self, best friend, and average undergraduate, respectively), $F(2, 208) = 0.24$, $p > .10$ (all contrast Fs < 1 0)

Discussion

The results of Experiment 3 corroborate those of Experiment 2 and support the thesis that the positivity effect is more likely to manifest for social versus nonsocial stimuli. The positivity effect has been robustly demonstrated to hold in the perceptions of the past and predictions of the future—but only in the case of personal experiences and not for product experiences.

We demonstrated that the positivity effect holds equally in the case of positive and negative events for personal experiences. Furthermore, although people perceive themselves as being less prone to negative personal events, they also perceive that people they are similar to are less prone to negative events than people they are less similar to. Therefore, although the self-positivity effect exists in the case of personal experiences, it is more generalizable to a positivity effect such that similar others are also perceived to be more shielded from negative outcomes than less similar others. The interesting finding, however, is that none of this positivity seems to come through in people's perceptions of product experiences.

Yet another issue addressed in Experiment 3 is the possible "encoding bias" explanation for the positivity effect in recall. Greater recall of positive rather than negative experiences can be attributed to a tendency to encode personal experiences as positive when they occur, resulting in more positive than negative experiences stored in memory. By using estimates of future positive and negative experiences,

we were able to rule out this explanation that the positivity effect reflects the truth. Parenthetically, the results also replicate those of Experiment 1 regarding positive and negative judgments of one's own personal versus product experiences. The difference between estimating the likelihood of a positive versus negative event is significant for the personal experience condition ($M = 6.11$ and 4.31, for positive and negative, respectively), $F(1, 101) = 17.04$, $p < .01$, as well as for the product experience condition ($M = 5.12$ and 4.37, for positive and negative, respectively), $F(1, 101) = 3.32$, $p < .10$. However, the difference between the two is greater in the case of personal experiences than product experiences.

We hypothesized thus far that social stimuli tend to be more ambiguous than nonsocial stimuli, resulting in the use of construal processes in the case of recall and judgments regarding personal experiences. We alluded to a motivation to maintain self-esteem as the process underlying positivity in construals of personal experiences; such motivation appears to be absent in the case of product experiences. Experiment 4 directly examines the role of motivation by manipulating it in the case of product experiences.

EXPERIMENT 4: MOTIVATIONAL UNDERPINNINGS OF CONSTRUAL PROCESSES

Thus far we have argued that basic differences between social and nonsocial stimuli create differences in the manner in which judgments are formulated. One such basic difference is that social stimuli tend to be more ambiguous than nonsocial stimuli (see Kardes, 1986), resulting in the use of construal processes. In general, people are motivated to maintain a positive sense of well-being and self-evaluation (e.g., Tesser, 1988; Wagenaar, 1986). Hence, construal processes work to maintain self-esteem by producing self-serving judgments such that people perceive themselves as being better than average

Kunda (1987, 1990) argued that construal processes are guided by motivation and demonstrated that self-serving biases do not occur in the absence of motivational pressures. She investigated two sources for self-serving biases: self-serving generation and self-serving evaluation. Self-serving generation assumes that "people use their stored world knowledge to generate theories about the causes of positive and negative outcomes in a self-serving manner, favoring those theories that could help maintain optimism about their own likelihood of incurring such outcomes" (Kunda, 1987, p. 636). Self-serving evaluation assumes that "when confronted with evidence that has implications for optimistic beliefs, people evaluate it in a self-serving manner, applying more stringent criteria to evidence with less favorable implications to the self" (Kunda, 1987, p. 636). Both may contribute to people possessing a biased set of theories that are consistent with optimistic beliefs about their future. Kunda (1987) concluded that "people's

tendency to generate self-serving theories linking their attributes to desirable outcomes does not seem to be due to purely cognitive mechanisms, because this tendency was found only for people who cared about the outcomes" (p. 646).

Further support for such motivated inference comes from research by Dunning, Leuenberger, and Sherman (1995). Whereas Kunda's (1987) results were correlational, Dunning et al. directly manipulated the degree to which participants were motivated to maintain self-esteem. Results were consistent with the idea that people make self-serving judgments because of their desire to bolster self-esteem. Support for the motivational antecedents of construal processes also comes from Weinstein's (1980) research. He found that people are unrealistically optimistic about future events that are within their control. On the other hand, in the case of events that are less controllable (e.g., a genetic medical condition such as high blood pressure), people are more realistic about outcomes related to the self, presumably because the manifestation of these outcomes has little to do with their own self-control and therefore does not reflect on their self-image.

Results of Experiments 1 through 3 demonstrate that construal processes are not engaged in the case of product experiences. We argued that product experiences are less ambiguous than personal experiences and therefore do not necessitate construals. However, if motivation to maintain positive self-esteem underlies construal processes, and people believe that product experiences have consequences for their self-esteem, construals should occur even in the case of less ambiguous product experiences. This is the focus of Experiment 4.

In general, consumers' product experiences can be viewed as an experience that is not relevant to a person's self-evaluation. This is because consumers can hold the manufacturer responsible for problems encountered with a product (Folkes, 1984) and, thus, do not implicate the self in the event (Bradley, 1978; Tetlock & Levi, 1982). The motivation to suppress negative events may be missing because a consumer has the opportunity to attribute product failure and low satisfaction with product performance to the manufacturer (Folkes, 1984, 1988a). Folkes (1988b) suggested that consumers tend to blame others for bad experiences with products. Further evidence comes from Richins (1985), who reported that 90% of the respondents in a survey in The Netherlands attributed at least some blame for their dissatisfaction to marketing companies.

As a specific demonstration of a model by which product failure blame is attributed to the company, Folkes, Koletsky, and Graham (1987) conducted a field study in an airport. They found that consumers' reactions to a product failure (i.e., delayed flights) directly affects their need to complain about the airline as well as their future intentions of using that particular airline. Furthermore, these effects are mediated through the level of anger that consumers feel toward the airline, indicating that consumers are attributing blame to the company offering the product and do not see the failure as reflecting on themselves in any way. This indicates that consumers attribute the blame of failure to the company (See also Johar, 1996). By

attributing product failure away from themselves, consumers can protect their self-evaluation and need not feel negatively about their own life when they recall negative product experiences. As an anonymous reviewer noted, the companies' willingness to accept blame permits such attributions, whereas people are not as willing to accept blame. Companies reveal such willingness in behaviors such as liberal return policies and emphases on customer satisfaction.

The following question then arises: What if consumers could be held responsible for product performance such that their self-evaluations would be affected adversely by bad product performance? A more compelling demonstration of the need to maintain self-evaluations even in the case of nonambiguous stimuli would be to create a situation in which people are made to believe that their product experiences in some way implicate themselves. Such a demonstration would offer a stronger test of the self-evaluation maintenance process posited to underlie construals. Such a test would also indicate that the moderation of the positivity effect by the nature of experiences (personal vs. product) has to do not only with stimuli ambiguity but also with the implications of these experiences for one's self-evaluations.

We hypothesize that when people are made to believe that product experiences implicate the self, then the positivity effect would manifest such that people perceive a more positive future for themselves than others.

Method

We used a 4 × 2 mixed full-factorial design. Target person was a within-subject factor and was manipulated at four levels: self, best friend, average student, and average American. We included the average American as a fourth category of a person who is very dissimilar from oneself (cf. Raghubir & Menon, in press). Self-evaluation implications of product experience was a between-subjects factor and was manipulated at two levels: low and high. Because attribution of blame to the manufacturer is posited to underlie the lack of relevance of product experiences to one self-evaluation, we manipulated high self-evaluation implications by telling participants the following:

> Most consumers believe that they themselves are not directly responsible for these experiences. However, research has shown that consumers themselves are often responsible for their product experiences. The probability of consumers having pleasant experiences is directly related to their handling of products. In the end the individual consumer has some responsibility for whether he or she has pleasant or unpleasant product experiences.

Participants in the low self-evaluation implications condition were not given this information; therefore, there was no manipulation of any kind included in this

condition. This low self-evaluation implications condition is identical to the positive product experience condition in Experiment 3.

Thirty students in a large northeastern university were randomly assigned to the two product experience conditions. They completed the questionnaire while participating in a different unrelated experiment for a monetary incentive. Participants first read the instructions (the self-evaluation implications manipulation was part of the instructions in the high self-evaluation implications condition). They then responded to the same measures from Experiment 3, that is, predictions of positive future events for each of the four target persons and similarity of target other to self.

Results

Manipulation checks. An overall 3 (target other) × 2 (experience) ANOVA indicated that similarity between self and each of the other three target persons was significantly different, $F(2, 58) = 43.68$, $p < .01$. The interaction effect was not significant ($p > .10$). Follow-up analysis of the similarity between self and best friend versus self and average student revealed a significant effect ($M = 5.26$ and 3.74, for best friend and average student, respectively), $F(1, 30) = 26.81$, $p < 01$ Contrast analysis on the similarity between self and average student versus self and average American also revealed a significant effect ($M = 3.74$ and 2.71, for average student and average American, respectively), $F(1, 30) = 15.25$, $p < .01$.

Moderation of the positivity effect. We predicted an interaction effect between self-evaluation implications and target person such that the positivity effect holds in the high self-evaluation implications condition but not in the low self-evaluation implications condition. A 4 × 2 ANOVA revealed that this interaction was indeed significant, $F(3, 87) = 6.12$, $p < .01$ (see Figure 3).

Follow-up analyses revealed that the overall difference in predictions was not significant for the low self-evaluation implications condition, $F(3, 27) = 0.58$, $p > .10$. This finding replicated the results of the positive product condition in Experiment 2. However, as expected, the predictions for product experiences differed in the high self-evaluation implications condition, $F(3, 27) = 7.89$, $p < .01$. The pattern of means was also as expected. The mean prediction of positive product experiences for oneself was significantly greater than the mean prediction for the average student, $F(1, 29) = 16.42$, $p < 01$, and the average American, $F(1, 29) = 23.46$, $p < .01$. The means also revealed that increasing self-evaluation implications has a dual effect: It results in a directionally higher prediction of positive product experiences for oneself ($M = 5.62$ and 4.94, for increasing self-evaluation implications and not increasing self-evaluation implications, respectively), $F(1, 29) = 2.74$, $p = .11$, and in a lower prediction for average students ($M = 4.31$ and 4 78, for increasing self-evaluation implications and not increasing self-evaluation implications, respectively), $F(1, 29) = 3.05$, $p < .10$, and for average Americans ($M = 3.62$

Dependent measure:
Likelihood on a 7-point scale of a positive product experience when self-implications are high vs low

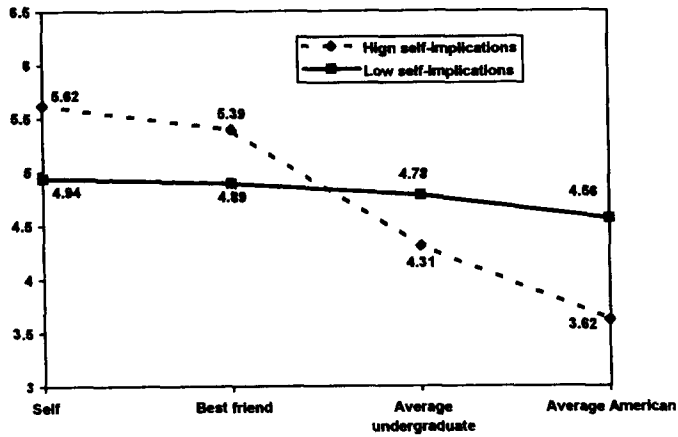


FIGURE 3 Motivational underpinnings of construal processes for Experiment 4

and 4.56, for increasing self-evaluation implications and not increasing self-evaluation implications, respectively), $F(1, 29) = 6.55$, $p < .05$.

Discussion

The results of Experiment 4 support the hypothesis that the positivity effect found in recall and judgments about oneself has motivational antecedents such that it is in operation only when it has implications for self-evaluations. Experiments 1 through 3 demonstrated that the positivity effect may be due in part to the ambiguity of the stimuli being judged. Experiment 4 demonstrated that, given nonsocial stimuli that are relatively less ambiguous, the positivity effect may still manifest when the self is implicated in product performance through an external manipulation.

The findings of this experiment are consistent with those of Kunda (1987). Although her results supported her self-esteem maintenance framework, they were inconclusive because they were based on correlational data. Our experiment affords greater insight about the causal role of self-serving theories in self-esteem maintenance because we experimentally manipulated the self-esteem relevance of nonsocial stimuli. Linking a product to a person via our manipulation changes the way a person thinks about the product.

Apart from making this theoretical point, this finding has an important practical implication. To advertise by evoking product experiences, it may be in the adver-

tiser's interest to implicate the consumer in the product experience so that he or she retrieves a positive experience, and the affect associated with such an experience may transfer to brand and ad evaluations.

GENERAL DISCUSSION

The main objective of this research was to investigate whether judgments related to nonsocial product experiences trigger processes that are different from those established for social stimuli. The results of three experiments indicate that they are. Experiments 1 through 3 demonstrate that product experiences do not trigger construal processes in recall and judgments, whereas personal experiences do. We attributed this difference to ambiguity; product experiences may inherently be less ambiguous that personal experiences, thereby entailing more concrete and less self-referent processing. This, in turn, leads to the manifestation of positivity effects in personal but not product experiences. Finally, Experiment 4 provides direct support for the motivational antecedents of the positivity effect by demonstrating that the positivity effect can be induced for product experiences by manipulating self-evaluation implications of these experiences.

Across the experiments, it is clear that the positivity effect is multiply determined and reflects the joint impact of many different variables. Ambiguity appears to be sufficient to trigger construal processes that are then used to exploit the ambiguity in a self-serving manner. However, Experiment 4 demonstrates that motivation alone also appears to be sufficient to trigger construals even in the absence of ambiguity. Kunda (1987) explained this interplay between cognition and motivational forces: "People use cognitive inferential mechanisms and processes to arrive at their desired conclusions, but motivational forces determine which processes will be used in a given instance and which evidence will be considered" (p. 637).

Construal processes could operate at the time of encoding or at the time of retrieval. Motivation may affect construal processes at the time of encoding, storing, or retrieving beliefs (Kunda, 1990). In the context of experiences, people could encode a negative experience (e.g., denial of tenure) as a positive one (new opportunities), or they could encode it as a negative experience and suppress it via selective retrieval mechanisms. People could also fail to encode information with negative implications by failing to expose oneself to it (selective attention) or by counterarguing with the message (Kunda, 1987). This article does not examine the specific nature of construal processes, and future research is needed to disentangle the manner in which such processes operate.

Implications

Boundary conditions to the self-positivity effect. Past research indicates that, in the case of personal experiences, there is a positivity effect such that positive

experiences are more salient and accessible and are therefore more likely to be recalled than negative ones (e.g., Brewer, 1988; Wagenaar, 1986). The results of Experiments 1 through 3 indicate that this positivity effect is moderated by stimuli ambiguity such that it does not manifest for product experiences. Based on this finding, we contend that consumer researchers need to be cautious in applying person memory literature to product memory. The findings of Experiment 4 indicate that the lack of a positivity effect that is evident in the judgments of product experiences has little to do with product interactions per se but rather has to do with the implications of these product interactions for one's self-evaluations.

The self-positivity effect may be a more generalizable positivity effect. This research provides support for the self-positivity effect in people's judgments of themselves. Furthermore, in keeping with the findings of Raghubir and Menon (in press), the results of Experiment 2 and 3 also demonstrate that the self-positivity effect is a more generalizable positivity effect because people show positive tendencies toward others they consider similar to themselves. This finding also suggests that, although the false-consensus effect (cf. Perloff & Brickman, 1982) holds in judgments about other people, this effect is moderated by the similarity of the other person about whom the judgment is being made to oneself (cf. Menon, Raghubir, et al., 1995). This is another interesting finding that has not received much attention in the literature.

Advertisements evoking product memories. An important practical implication of this finding is that ads that cue product experiences may cue positive experiences as expected and desired, or they may inadvertently cue negative product experiences. Advertisers often cue consumers' memory for past experiences with a brand in an attempt to link the substance of their ads to the lives of consumers—and to thus evoke nostalgia and positive affect (Holbrook, 1993; Sujan, Bettman, & Baumgartner, 1993; Unger, McConocha, & Faier, 1991). The affect associated with past experiences is expected to transfer to the brand so that consumers make more favorable brand evaluation (Johar & Menon, 1997). Clearly, cuing such product experiences in an ad is likely to result in more favorable brand judgments only if consumers recall positive experiences rather than negative ones. For example, if a consumer recalls a favorable experience when primed to do so, such as receiving a complimentary upgrade to business class on British Airways, the consumer is likely to judge British Airways more favorably when a consumer memory is evoked in an ad than when such memory is not evoked. However, if a consumer exposed to an ad priming a memory recalls a negative event, such as being refused boarding for the flight despite holding a valid ticket, then the consumer's judgment of British Airways is likely to become less favorable compared to a situation in which this experience is not evoked by the ad. If the same consumer experienced both these situations, brand judgments are likely to depend

on the relative salience and, hence, accessibility of the positive versus negative experience in memory as well as on the nature of the prime in the ad.

From a practitioner's standpoint, this research suggests that advertisers need to exercise caution when trying to evoke experiences related to the product or brand. The findings of this article suggest that advertisers need to use other additional strategies to ensure the retrieval of positive experiences. Our research suggests that the self-positivity effect in recall and judgments about personal experiences can also occur in product experiences if the advertiser implicates the consumer in the experience. If the ad makes consumers believe that the valence of their past product experience can be attributed to themselves, they are likely to feel the retrieved experience has implications for their self-evaluations. Hence, positive experiences are more likely to be retrieved than negative ones. If this is possible, then advertising evoking a product experience may prove to be a fruitful strategy (see Baumgartner, Sujan, & Bettman, 1992; Sujan et al., 1993).

Future Research

From a theoretical perspective, this research established that the positivity effect found in the literature on person memory does not hold for product memory. Other conditions under which the positivity effect does not hold need to be identified in future research. For example, the valence of the recalled memory may also be related to the mood state of the individual at the time of recall (e.g., Clore, Schwarz, & Conway, 1994, Isen, 1984). Specifically, research is needed to examine whether mood congruent recall would hold in the case of product experiences.

Related to this is the issue of negativity effects (e.g., Herr, Kardes, & Kim, 1991, Skowronski & Carlston, 1989). For example, Klein (1991, 1996) indicated that, in an election scenario, people weigh negative information about candidates much more in their overall evaluations of the candidates and their voting intentions. If negative product experiences are considered more diagnostic than positive ones, they are likely to be processed more elaborately and more likely to be retrieved, resulting in negativity effects (Skowronski & Carlston, 1989). Although our research found a lack of positivity effects in the case of product experiences, there may be situations in which negativity effects manifest. The results of Experiments 1 and 2 reveal a high degree of negativity in product experiences; however, recall and judgments of negative experiences were not significantly greater than positive experiences. However, these findings could still reflect overestimation of negative experiences compared to the truth. This is an avenue worthy of future research.

Furthermore, research is also needed to examine the consequences of priming negative product experiences. Past research has shown that the affect associated with retrieved positive memories cued in an ad is transferred to the advertised brand (Baumgartner, Sujan, & Bettman, 1992). If negative product experiences are more

salient than positive ones, future research could examine the consequences of priming negative product experiences for ad processing and brand evaluations and whether the affect transfer mechanism operates for negative affect.

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