THE EFFECTS OF INFORMATION VALENCE AND CONSISTENCY AND PRODUCT TYPE ON CONSUMER SATISFACTION

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ABSTRACT

In order to develop appropriate strategies for successfully launching new products, advertising and product managers alike must be armed with knowledge about the effects of negative information and the timing of introduction of such information on consumer satisfaction. Additionally, the awareness of the differential effects of the type and timing of information on specific product categories would facilitate development of more effective promotional strategies. In this study, initial exposure to positive or negative product information was followed by exposure to subsequent information with either the same or opposite valence for products representing two products (search and experience). This information was provided prior to actual experience with the products in a behavioral laboratory. Subjects' product satisfaction was used to test hypotheses derived from human judgment theories. As expected, for the product dominated by search attributes, the information treatments did not influence product satisfaction; however, effects were found for the experience product. Moreover, for the experience product, assimilation effects were generally found and, as expected, valence consistency and valence order had a significant impact on the level of subject satisfaction.

INTRODUCTION

When a new brand is introduced, the crucial roles of advertising are to build brand awareness, deliver brand benefit claims persuasively, and create sufficient purchase intentions to achieve target rates of trial purchase (Rossiter and Percy 1987). After its initial introduction and trail, ultimate success of the brand depends on the repurchase rate. New product models reflect (e.g. Pringle, Wilson and Brody 1982) reflect the specification developed in Howard and Sheth's (1969) model and many other consumer models: Repeat purchase depends importantly on consumers' evaluations of the new brand during first usage experience.

Besides developing advertising and marketing programs capable of achieving necessary trial and repurchase rates, managers must also anticipate and react to disruptive competitive tactics and other uncontrollable environmental information sources. For example, deliberate increases in advertising weight for rival brands may interfere with development of new brand of awareness, and competitors' use of promotional tools stimulating "usage" may overload consumers, thus interfering with brand purchase intentions (Rossiter and Percy 1987).

Recent research suggests that intervening negative information from neutral or rival sources such as competitors' advertising (James and Hensel, 1991), unfavorable word-of-mouth (Wilson and Peterson 1989), or reports of testing agencies (Weinberger 1986) may modify or distort initial brand performance expectations prior to trial purchase and use. Decreased trial, less favorable brand evaluation by trier, and lower probability of repeat purchase may occur, since consumers' evaluations of their experience with the new brand may be colored by their expectations for performance (Alloy and Tabachnik 1984; Deighton 1984). However, there is reason to believe that it is possible to mitigate or eliminate the effect of negative information on the evaluation process: in fact, for some product types, the evaluation process may not always be effected by negative information (Churchill and Surprenant 1982; Hoch and Ha 1986; Hoch and Deighton 1989). Hence, the strategic manager must be aware of the properties of the product category in question when planning actions to counteract the effects of uncontrollable information.

The goal of this study was to identify the effects of the type and timing of information on satisfaction with new brands. The study assessed the role of initial and subsequent intervening information (negative and positive) on consumers' evaluations of new brands of both search and experience goods. Results of the study suggest strategies which may facilitate the managerial tasks of correctly predicting and reacting to the effects of negative information.

CONCEPTUAL BACKGROUND AND HYPOTHESES

It is axiomatic to suggest that consumers are not perfect evaluators of new brands. Brand evaluation starts with initial expectations about brand performance (often created by introductory advertising); such expectations are actually hypotheses subject to verification or modification as new information and experience are processed (Deighton 1984) through exposure to sources such as advertising, word of mouth, reports of consumer product testing agencies, etc. (Bettman, John and Scott 1984).

Brand evaluations may be biased by these amended expectations. The interactive effects of prior expectations and current situational information in determining how people judge others are well known (Alloy and Tabachnik 1984); moreover, these factors have been found to influence perceptions of product performance, too (Woodruff, Cadotte and Jenkins 1983). However, exceptions to the influence of prior information have been noted. For example, Churchill and Surprenant (1982) found satisfaction was influenced by prior information for a non-durable, but not for a durable good. Hoch and Ha (1986) found advertising-induced expectations influenced product evaluation only when product characteristics were ambiguous, where ambiguity was defined in terms of perceived quality variability. Hoch and Deighton (1989) conclude that motivation, product familiarity and ambiguity all influence what consumers learn from experience with new brands.

Nelson's (1970, 1974, 1978) concepts of search and experience qualities of goods offer insights into when expectations will affect new brand evaluations of consumers. Search qualities are those which can be judged by physical inspection before purchase (Nelson 1970, p.312). For products where search qualities predominate, "if advertised properties differ from the actual properties, the consumer will know about that difference prior to purchase" (Nelson 1974 p.730). Nelson's search qualities correspond to Hoch and Deighton's (1989) concept of unambiguous attributes.

Nelson's experience qualities are those that can only be judged after purchase and use of the brand, or that can be more cheaply judged with purchase. However, whereas Nelson assumed product quality for experience goods can be adequately judged after purchase and use, Hoch and Deighton (1989, p.9) point out that he "does not recognize that product experience can be ambiguous". They argue that experience attributes may be "indistinct or difficult to disentangle from one another" and thus may be influenced by contextual factors and outside influences such as advertising (p. 9).

Our conceptualization combined Nelson's definitions with the notion of ambiguity. In this study, search and experience products were measured in terms of two dimensions taken from Nelson: (1) the degree to which consumers think product attributes can be judged before experience and use, and (2) whether consumers feel product information is best obtained by buying and sampling the product or by collecting information and making pre-purchase judgments. Because experience goods are likely to contain elements of ambiguity, it was predicted that subjects' evaluations of experimental experience goods would reflect the assimilation and negativity biases predicted by the human judgment literature (discussed below). However, for the experimental search good, we predicted the effects of initial and subsequent exposures to information on brand evaluation would be overridden by actual experience in a simulated product use setting. These expectations are summarized in Proposition 1 and its associated hypothesis.

P1: A new brand in a product category whose attributes are predominantly those (1) which consumers characterize as capable of being judged before experience and use and (2) for which consumers feel product information can best be obtained by collecting information and making pre-purchase judgments will be evaluated the same in a simulated use setting, regardless of (1) the favorableness or unfavorableness of initial information presented in the experiment or (2) intervening information provided prior to the simulated use experience.

H1: For search goods, subjects' product satisfaction will not be effected by the

type (positive or negative) of information nor the time (initial or intervening) of information.

Consumers' evaluations of such products may reflect individual differences in tastes and experience-based criteria, so we expected some variance in response, but no significant differences in mean evaluations across the various treatment groups were expected.

For a product dominated by experience qualities, we expected product quality could not be determined unambiguously prior to purchase even if the product were to be physically inspected, since here the consumer's experience in examining the product results in a subjective interpretation. Srull and Wyer (1979) explain such an experience can be said to be "open to diverse interpretations", the equivalent of Hoch and Deighton's (1989) use of the concept of ambiguity. Hoch and Ha (1986) show that when a brand is part of a product category where experience is ambiguous, the consumer's tentatively held attitudes are likely to be seen by that consumer as confirmed by experience with the brand. They hypothesized "that product categories providing ambiguous evidence about product quality would support top-down, assimilative processing; subjects would find evidence to corroborate either their idiosyncratic priori opinions (when no advertising was present) or the tentative expectations provided by the ad". (Hoch and Ha 1986). These observations are summarized in Proposition 2.

P2: A new brand in a category whose attributes are predominantly those (1) which consumers characterize as capable of being judged only after product purchase and use (2) for which consumers feel information can best be gathered by buying and sampling the product will be evaluated differently in a simulated use setting, depending on (1) the favorableness or unfavorableness of initial information presented in the experiment and (2) intervening information provided prior to product use.

Hypothesis 2a gives predictions when prior and subsequent information exposures are of similar valence (consistent), and Hypothesis 2b deals with mixed valence treatments (inconsistent). Predictions when treatments were both positive or both negative were based on the concept of assimilation effects, defined as the case where judgements (here, product satisfaction) are consistent with the "primed category" (here, the prior information treatments) (Herr, Sherman and Fazio 1983; Srull and Wyer 1979, 1980). As Herr, Sherman and Fazio (1983) explain, "the ambiguity of a stimulus is typically defined in terms of its being open to diverse interpretations. Such stimuli are assimilated toward the context provided by the primes". An assimilation effect would result in product satisfaction reflecting the valence of the prior information treatments.

H2a: For experience products, when initial and subsequent information treatments are of the same valence, product satisfaction when both treatments are positive will be higher than brand evaluations when both treatments are negative.

In making evaluations, relatively heavier weight is often given to negative information in human judgment tasks (Alloy and Tabachnik 1984; Fiske 1980; Kanouse and Hanson 1971, Lynch 1979; Skowronski and Carlston 1987), and Mizerski's (1982) research confirmed results in five earlier studies finding consumers also tend to weight negative information more heavily than positive information.

For both types of mixed cases (i.e., initial negative information followed by intervening positive information and vice versa), our predictions were based on this dominance of negative information. Negativity dominance can be explained in terms of the anchoring effect of first information exposure and the ensuing adjustments that may be brought about by subsequent information exposure (Slovic and Lichtenstein 1971; Tribe 1971). When initial information is negative, the anchor resists important change when subsequent information is positive. Therefore, the information sequence, negative followed by positive, results in only a modestly better brand evaluation than the case where both initial and subsequent information exposures are negative. When initial information is positive, the positive

anchor created is susceptible to important change when subsequent information is negative. Therefore, the information sequence, positive followed by negative, results in a much lower brand evaluation than when both initial and subsequent information exposures are positive. These relationships are formally stated in Hypothesis 2b.

> **H2b:** For experience products, when initial information is positive, negative subsequent information will result in a much lower product satisfaction rating than when both initial and subsequent information are positive. When initial information is negative, positive subsequent information will result in product satisfaction that is only somewhat more positive than when both information exposures are negative.

Thus, we expected the difference between the positive- negative treatment and the positive-positive treatment to be greater in absolute terms than the difference between the negative- positive treatment and the negative-negative treatment (an interaction effect).

EXPERIMENTAL DESIGN

A 2X2 between subjects factorial design was applied twice, once for each product type. The independent variables were: (1) consistent information, exposure to initial information and subsequent information sets that were either both positive or both negative and (2) inconsistent information, exposure to initial information and subsequent information sets that were mixed, either positive-negative or negative-positive. Disguised brands of luggage (search product) and instant glue (experience product) were employed to operationalized product type. Subjects mean response to a series of evaluative questions served to operationalize the single dependent variable, product satisfaction.

Pretesting

Product Selection. Eight candidate products were initially selected. Each had primarily either unambiguous or ambiguous attributes. All could be appropriately experienced within the time frame of the experiment and were familiar to students. Each category had brands having the same attributes but in differing degrees and new brands appeared frequently within categories. Attributes were determined by reviewing research and consumer literature and in informal group interviews. A questionnaire administered to 65 subjects determined attribute importance. Then, questions rating each attribute for each of eight products on 1) ability to judge outcomes in relationship to pre-purchase information, and 2) preferences for collection of information were administered to 123 subjects. These two dimensions are consistent with a wide variety of research which has considered search and experience as a classification (Cave 1985; Bowen and Jones 1986; Darby and Karni 1973; Nelson 1970; 1974; 1978; Sheffet 1983; Zeithamel 1981).

Ranking comparisons for each indicator of product type were calculated; these comparisons were then used to determine the predominant type of attributes (search or experience) comprising the product. Luggage ranked first in subjects' belief in their ability to evaluate the product using pre-purchase/pre-use information (i.e., information on "search" attributes); subjects also rank ordered luggage as the product for which they most preferred to personally collect prepurchase information. Hence luggage was selected as the search product. Instant glue was chosen as the experience product because it ranked first in subjects' belief that the product could only be successfully evaluated after purchase and use and because it was ranked first in subjects' preference for collecting information by buying or sampling the product. The same pretest was used to select four attributes of statistically equal importance for each product. For luggage these were packing convenience, design of straps and handles (carrying comfort), styling, and weight (lbs. to volume). Sturdiness of construction (durability) was also considered an important attribute. However, durability performance was held constant across the four conditions. For glue the attributes were strength of bond, suitability for various materials, convenience of applicator, and appearance of glue when dry.

Initial Information Statements. Favorableness of 34 information pieces was rated by 56 subjects. Statements were selected with high positive and high negative mean values and with low variance around the mean. Paired t-tests were also conducted and pairs of expectation statements were selected based on a significant difference at the alpha = .01 level. Paired t-tests showed that the expectation treatments were of statistically equal magnitude across products at the alpha = .05 level.

Subsequent Information Statements. Pretest subjects also rated sets of statements for consistency with the selected expectation statements. These statements were selected for the subsequent information treatment using the same criteria as employed in selection of the initial statements.

Method

Subjects. Subjects were 103 volunteer upper level undergraduate students. To contribute to strong internal validity and to minimize demand characteristics, subjects were told the study was being conducted for a marketing research firm interested in developing a computerized consumer information service. Both information statements were embedded in larger scenarios. Interviews conducted later indicated no subject guessed the true hypotheses of the study.

Procedure. Each subject was randomly assigned to one of the four experimental conditions. Information was presented via a computer terminal and subjects keyed their responses directly into the computer program. Subjects' initial favorable or unfavorable expectations were manipulated by exposures to statements attributed to the manufacturer, who reputedly was reflecting the results of early consumer research on the new products. Such information is often used as the basis for advertising claims. These statements were not embedded in sample ads or copy to avoid possible contamination by creative variables and to be consistent with the cover story. Subsequent information was attributed to an independent research firm. The actual level of brand performance was constant across all subjects.

Operationalization of overall product satisfaction was assessed using five-point scales, with anchoring phrases rating the brand "very bad" to "very good" and post-use affect "very impressed - very unimpressed", "very pleased - very displeased", "very contented - very frustrated", and "very delighted - very upset". This type of operationalization of product satisfaction is consistent with those used in previous research (Kennedy and Thirkell 1987; Westbrook 1983; Woodruff, Cadotte and Jenkins 1983). Length of time spent examining the stimulus screens and examining the products was assessed. The sequence of activities follows.

1. Subjects were welcomed, introduced to the experimental session and presented with background material on the research.

2. Each subject read a short background sketch on the first product which created either positive or negative pre-use expectations.

3. Manipulation check for the first product. This measure consisted of three questions using five-point scales as follows: Overall, this description indicates that this product is... very bad to very good. If you were going to use this product would you expect it to be... very displeasing to very pleasing. Overall, this product sounds like something I would ... dislike very much to like very much. These measures served as the manipulation checks. (See Table 1).

4. Each subject was then presented with additional information that was reputedly conducted by an independent research firm. This information was either consistent or inconsistent with respect to the initial expectations.

5. The subject was then conducted to a separate room where the product was examined and used. The research assistant handed each subject an instruction sheet which provided detailed directions on examining the products.

Table 1

MEANS (SDs) OF Initial Information

Luggage

	Positive Mean	Negative Mean
Design of Straps and Handles	4.20 (.86)	1.73 (1.10)
Packing Convenience	4.47 (.64)	1.93 (.80)
Weight	4.27 (.46)	1.80 (.86)
Styling	4.46 (.74)	1.93 (1.10)

Glue

	Positive Mean	Negative Mean
Strength of Bond	4.00 (.26)	1.93 (.96)
Suitability For Various Materials	4.60 (.51)	1.57 (1.12)
Convenience of Application	4.66 (.62)	1.66 (.62)
Appearance of Glue When Dry	4.40 (1.05)	1.53 (1.05)

Standard Deviations are in Parentheses
Based on a 5 point scale with 1 being most negative and 5 being most positive

MEANS (SDs) Of Subsequent Information

Luggage

	Positive Mean	Negative Mean
Design of Straps and Handles	4.6 (.65)	2.0 (1.14)
Packing Convenience	4.7 (.61)	1.2 (.59)
Weight	4.8 (.36)	1.0 (.36)
Styling	4.7 (.42)	1.1 (.37)

Glue

	Positive Mean	Negative Mean
Strength of Bond	4.5 (1.15)	1.5 (1.33)
Suitability For Various Materials	4.9 (.27)	1.5 (.85)
Convenience of Application	4.7 (.42)	1.1 (.37)
Appearance of Glue When Dry	4.6 (.85)	1.6 (.93)

Standard Deviations are in Parentheses
Based on a 5 point scale with 1 being most negative and 5 being most positive

For the instant glue, a tube of the glue with the brand name disguised was provided along with some items that were glued with the same glue two days prior to the experiment. Additionally, items for the subjects to glue themselves were provided. Also it was stressed that each of the attributes discussed previously in the information screens was to be evaluated: strength of bond, appearance of glue when dry, convenience of applicator, suitability for various

materials. Subjects were encouraged to try to break apart the materials that had been previously glued and to glue various items together.

For the luggage, it was again emphasized that each of the attributes was to be evaluated: packing convenience, design of straps and handles (carrying comfort), styling, and weight (lbs. to volume). Additionally, typical overnight items for college students were provided for the subject to pack. Subjects were instructed as follows: to pack and unpack the suitcase with the items; to pick up the full suitcase and carry it around; to open up the bag and look inside; to note the number, size and location of compartments as well as the handles and straps.

The research assistant recorded the amount of time each subject spent examining each of the products and noted whether the subject had followed the instructions. She then cleaned up the room and rearranged all items the same for each subject.

6. The subject was asked to respond to a series of structured questions designed to measure the dependent variable.

7. The entire sequence was then repeated using the second product. Product order was counterbalanced. No effect was found for product order.

Responses from three subjects were dropped, since these students spent very little time examining information and products.

Reliability. Alpha coefficients for the product satisfaction measures were .92 for the instant glue and .94 for luggage. Alpha for the three-item scales used as an expectations manipulation check were .94 for luggage and .95 for instant glue, sufficiently high according to Nunnally's (1978) standards.

Table 2
Means (SDs) of Dependent Measure
Product Satisfaction

Initial Information	Subsequent Information	Cell Size	Brand Evaluation
		Luggage	
Positive	Positive	25	2.75 (1.02)
Positive	Negative	25	2.05 (0.69)
Negative	Negative	25	2.37 (0.86)
Negative	Positive	25	2.57 (0.84)
Overall Mean	2.55		
		Glue	
Positive	Positive	25	4.21 (0.36)
Positive	Negative	25	2.45 (0.64)
Negative	Negative	25	1.83 (0.54)
Negative	Positive	25	2.85 (0.71)
Overall Mean	2.83		

Standard Deviations Are in Parentheses

RESULTS

Table 2 contains the means of the product satisfaction measures by attributes for both products. An analysis of variance was conducted on the dependent measure for both product types to determine whether different types of information had an effect.

Luggage

Hypothesis 1 stated that for products whose attributes are dominated by those consumers characterize as capable of being judged before experience and use and for which consumers feel product information can best be obtained by collecting information and making pre-purchase judgments will be evaluated the same regardless of the favorableness or unfavorableness of the initial or subsequent information. This hypothesis was supported as no main effects or interaction were present. See Table 3.

Table 3

ANALYSIS OF VARIANCE: Luggage Product Satisfaction

Source	df	SS	MS	F
Consistent Information (C)	1	.67	.67	.44
Inconsistent Information (I)	1	.01	.01	.01
C X I	1	1.21	1.21	1.55
Residual	96	74.86	.78	
Total	99	76.75	.77	

***p<.001
** p<.01
* p<.05

ANALYSIS OF VARIANCE: Glue Product Satisfaction

Source	df	SS	MS	F
Consistent Information (C)	1	24.40	24.40	73.82***
Inconsistent Information (I)	1	3.46	3.46	10.46**
C X I	1	48.16	48.16	145.68***
Residual	96	31.74	.33	
Total	99	107.76	1.09	

***p<.001
**p<.01
*p<.05

Instant Glue

Consistent with Hypothesis 2, Anova procedures for the dependent measure disclosed main effects for consistent and inconsistent information as well as an interaction between the two effects. See Table 3. Hypothesis 2a stated that for products dominated by ambiguous characteristics, when initial and subsequent information treatments were of the same valence, brand evaluations when both treatments are positive will be higher than brand evaluations when both treatments are negative. There was a significant difference between the two groups receiving all positive versus all negative information ($F=73.82$, $p < .001$).

Examination of the means shows that those receiving all positive information evaluated the product the highest (mean rating 4.21) and those receiving all negative information evaluated the product the lowest (mean rating 1.83). Thus, hypothesis 2a was confirmed. This finding lends support to the notion that, when consistently positive or consistently negative information is received prior to the actual brand experience, assimilation effects are likely to occur. Apparently, subjects interpreted the brand experience (outcomes of brand performance) to be in line with the pre-use information they received.

A main effect for the inconsistent condition was also observed ($F=10.46$, $p < .01$). Within the population of subjects receiving both positive and negative information, those subjects receiving initial positive information and subsequent negative information had **lower** brand evaluations than those subjects receiving negative information followed by subsequent positive information. Thus, for those receiving mixed information (both positive and negative), product satisfaction was lower for those receiving the negative information second. In terms of treatment means alone, the negative-positive sequence appears to dominate, suggesting negative information had somewhat stronger effects when received first.

To test hypothesis 2b, interaction effects were examined. The analysis indicated a significant interaction between consistent and inconsistent information for brand evaluation ($F=145.68$, $p < .001$). Apparently, the effectiveness of information on brand evaluation will vary

depending on whether positive or negative is received first. This effect can be seen by examining the difference between the means of those receiving positive-positive information and the means of those receiving positive-negative information (4.20 minus 2.45 equals 1.76) and comparing that with the difference between the means of those receiving negative-negative information and the means of those receiving negative-positive information (1.83 minus 2.85 equals -1.02). The negative information received after the positive information lowered the ratings an average of 1.76, whereas the positive information received after the negative information only raised the ratings an average of 1.02.

These findings support the prediction of hypothesis 2b that negative information will pull down the positive more than the positive will pull up the negative. In other words, a positive anchor is less likely to hold, whereas a negative anchor is more likely to hold. Those whose initial information is positive are likely to attend to the subsequent negative information and it will influence their brand ratings. However, those who receive initial negative information are more likely to discount the subsequent positive information.

DISCUSSION

The operationalization of Nelson's concepts of search and experience qualities was effective in predicting when product performance would dominate information treatments in determining product satisfaction. Actual perceived product performance appeared to influence product satisfaction for luggage (the search product) where variations in group means for the brand evaluation apparently reflected individual differences rather than the impact of information provided. For instant glue (the experience product) product performance was more likely to be assimilated to fit the information received and incorporated into beliefs. Here, findings were consistent with the idea that experience attributes are ambiguous, and thus subject to assimilation and negativity effects. Our operationalization of ambiguity, using concepts suggested by Nelson, seems more direct than Hoch and Ha's (1986) use of reliability across subjects in a quality judgment task.

The moderating effect of product type on information received prior to actual product exposure is further shown in the range of average brand evaluation scores. For luggage, the range of average scores was much smaller (2.05 to 2.75) than that for instant glue (1.83 to 4.21). The results highlight the danger of failing to consider explicitly how the effects of information on brand evaluation may differ among products. Our results support a post-hoc explanation offered by Churchill and Surprenant (1982) for their findings in satisfaction differences between a durable and non-durable. Our products were carefully selected to reflect the predominance of search (unambiguous) or experience (ambiguous) attributes, and, as predicted, this classification proved to be an important determinant of results.

For instant glue, our study confirmed the strong impact of negative information found in earlier research in human judgement and consumer product evaluation studies. The effect of the sequencing of positive and negative messages was found to depend on the criterion used. In terms of mean evaluations, negative information followed by positive resulted in more favorable ratings than the reverse sequence. On the other hand, when each mixed sequence was compared with treatments where information was either all negative or all positive, the predominance of negative information was strongly supported. Our findings contribute further to this research in that products dominated by characteristics consumers rate as search attributes were shown to be far less susceptible to the impact of such negative information.

LIMITATIONS

In-home use of a new brand may be necessary to obtain accurate consumer evaluations of new brand attributes when reactions of other household members are significant, when other household products must be present for accurate evaluation, when substantial time periods are needed for realistic assessment, or when privacy in use is essential. Although none of these conditions holds for luggage or glue, it could be argued our lab simulation did not provide realistic evaluation. Lab evaluations may be higher because of the absence of improper use or unfavorable conditions

that may exist at home, and lower because of lower subject commitment. Since relative measures were of interest, however, neither of these may amount to serious limitations.

A second possible limitation is the use of only two products for hypothesis testing. While the two used were carefully selected, the generalizability of our findings can be understood only after replications with other products have been undertaken. Thirdly, the use of student subjects restricts somewhat the range of products that can be appropriately used. Research using other exemplars of search and experience goods may well require the use of subjects representative of other consumer groups and other research settings as well.

It should also be recognized that consistent or inconsistent information found in word-of-mouth communication, or with advertising and other sources identified with sellers may not have the same effects as information identified with an objective testing source. This difference does not detract from the usefulness of our results, since objective sources are commonly used by consumers, but it is important to recognize that our findings may not extend to confirming or disconfirming information provided by a seller or another consumer. This issue deserves further research investigation.

There may be alternative explanations for the findings that should be explored in other research. Students may have been less familiar with glue (and thus more open to suggestion) or there may have been differences in the strength of information statements made for the two product classes. Although efforts were made to make use experiences with the two products comparable, the glue experience may have been somehow more involving.

Finally, initial evaluations of the products were based on information identified with the "company" as its source, and subjects were asked to take a stance on these products by entering their evaluations. Exposure to the consumer-testing information came only a short time after the formation of expectations. Thus, our results need to be interpreted in light of this expectation formation process and the "public confirmation" of these initial expectations, conditions that are not always met in a real product evaluation situation. Our results may not be replicated in situations where expectations carry less commitment, and where confirming or disconfirming information follows only after some length of time has elapsed. They also may not apply when expectations are based on experience rather than information. Several additional research questions clearly need to be explored.

IMPLICATIONS AND AVENUES FOR FUTURE RESEARCH

The results of this study indicate that two possible boundary conditions should be taken into consideration when examining judgment biases: product type and the presence of negative information. For products that consumers characterize as capable of being judged before experience and use and for which consumers feel product information can best be obtained by collecting information and making pre-purchase judgments (i.e., search products), performance is much more likely to determine evaluation. This suggests that marketing communications should aim benefit claims at an acceptable level of brand performance, neither over-or under-claiming brand benefits. For products judged by consumers to be capable of being judged only after purchase and use and for which consumers feel information can best be gathered by buying and sampling the product, information received prior to actual use experience may have a more lasting effect. Thus, our findings strongly suggest that carefully building favorable brand expectations is especially important for sellers of experience goods. Benefit claims should be stated extremely, although information provided should not be too extreme, lest a contrast effect occur.

The second meaningful implication centers on the importance of negative information. For experience goods, results shown here suggest that negative information received after initial positive expectations have been formed through exposure to advertising may have an unfavorable impact on how the product is evaluated after actual trial use. Additionally, and more difficult to counter, positive information received after initial negative expectations have been formed tends to be discounted and negative information received after positive information will be attended to.

Nevertheless, product trial may reduce initial negative beliefs if additional information is presented about alternative attributes.

One possible strategy may be to re-focus information away from experience attributes toward search attributes of the product. A second strategy may be to structure the brand trial in such a manner as to make product performance less ambiguous. If product outcomes are structured rather than ambiguous, consumers' preexisting beliefs are less likely to rule. Clearly, further research is needed to learn how marketers of experience products can counter the detrimental effects of negative information in the environment.

Theoretically, our results confirm predictions from social psychology that people will assimilate information in an outcome situation that is ambiguous (subject to multiple interpretations) and that negative information will dominate in mixed information situations. Such situations may be common in consumer purchasing, where advertising, for example, may create positive expectations and trigger the initiation of search and shopping. During this phase, experts and other consumers may be consulted, and such "objective" sources may well provide negative information.

Finally, this study should arouse interest in methodological procedures and their subsequent impact on experimental results in consumer behavior research. A common hypothesis proposed in the psychology and consumer-behavior literature is that different types of information processing mechanisms occur under various conditions. However, the product as one of these conditions is frequently ignored or not carefully controlled. Products to be included in experiments are frequently chosen on the basis of convenience or interest with little regard to other factors. This study shows that information will have different effects depending on the product category involved. When choosing products to use in experiments, researchers need to be cognizant of possible interactions between their manipulations and the products chosen. Furthermore, the same argument can be extended to include the attributes of the products. Only careful selection and pretesting of products and their attributes can ensure what conditions the experimenter is isolating and, thus, allow researchers to truly assess the effects of various information manipulations.

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