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# Conditions Facilitating Successful Discounting in Consumer Decision Making

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Two types of discounting appeals were tested for effectiveness: an ignore appeal asks consumers to disregard a previously communicated claim because it may not be valid; a refute appeal specifically states that the challenged claim is incorrect. Results from two experiments indicate that the impact of the two appeals on consumer decision making depends on the elaboration the message underwent during encoding. Impact is also mediated by the extent to which a discounting cue provides counterinformation about a product and signals a reinterpretation of non-challenged claims. Refute appeals are more effective due to their specificity and strength.

Often, judgments are challenged not by new evidence, but rather by information impugning the evidence that led to the judgment in the first place. For example, the policy-maker may learn that the forecast data on which a decision was based were not reliable. Or consumers might be informed after viewing a TV commercial that the test performed on the particular product was not valid (e.g., "Research has not established that consuming sugar before meals will contribute to weight reduction or even keep you from gaining weight"; see Wilkie, McNeill, and Mazis 1984 for additional examples). Discounting appeals that instruct individuals to disregard a particular claim are termed *ignore* cues. However, discounting messages may take a different form and provide information that directly refutes one or more of the original claims (e.g., "Listerine will not help prevent colds or sore throats or lessen their severity"; see Wilkie et al. 1984 for more examples). These types of appeals are termed *refute* cues. Both kinds of appeals are prevalent, especially in the context of corrective advertising communicated by an agent such as the Federal Trade Commission (FTC) to remedy false information. The present study compares the cognitive processes involved in both types of discounting.

The processes involved in the use of ignore cues have been systematically investigated in the "belief

perseverance" paradigm. The typical effect found in this line of research is the tendency for people to cling to their old judgments and preserve their initial (pre-discounting) beliefs when faced with an instruction to disregard information (see Ross and Anderson 1982 for a review of the early literature). Whether this prediction extends to refute cues, which not only induce the receiver to disregard a claim but also provide explicit opposite implications, is the prime focus of the present study. In the following analysis, we contend that differential impact of ignore and refute appeals on consumer beliefs may depend largely on the way the initial information was encoded in memory and on the kind of judgment elicited following the delivery of the discounting appeals.

Ignore and refute discounting appeals represent extreme points on a continuum of ambiguity/explicitness. Ignore cues detract from the validity of the challenged claim without offering an alternative position (e.g., "Research has not established whether or not . . ."). As a consequence, the implications of the ignore cue with respect to the qualities of the product are ambiguous and inexplicit. In contrast, the refute cue is explicit and offers unambiguous information that directly contradicts the challenged claim (e.g., "Listerine is not . . ."). The two types of discounting appeals appear to differ in their persuasive potential as well (e.g., Dyer and Kuehl 1974; Hunt 1973), and it seems reasonable that opinion change should be more pronounced following refute cues than following ignore cues.

Recent studies have shown that the impact of discounting messages also depends on the way the message information was originally encoded (e.g., Mazur-

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sky and Schul 1988). The literature on belief perseverance suggests that as the associative network linking the challenged claim with the non-challenged claims becomes more dense, it becomes more difficult to discount the challenged claim, leading to perseverance of the old beliefs (Anderson 1983; Anderson, Lepper, and Ross 1980; Ross et al. 1977; Schul and Burnstein 1985; Wyer and Budesheim 1987). We shall term the encoding in which a large number of associations are generated between the challenged and non-challenged claims *elaborative encoding* to distinguish it from *non-elaborative encoding*, in which relatively few associations link the different claims.<sup>1</sup>

Depending on the context, a claim may have many different interpretations. During encoding of the original message, an interpretation that best fits with those of the other claims is chosen (Higgins and Rholes 1976; Holmes 1979; Zanna and Hamilton 1977). In this sense, following encoding, each claim contains associations and inferences consistent with the other claims in the message. Therefore, to effectively ignore a claim, it is not sufficient to block that particular claim from memory. Rather, one must re-encode the other claims in the message to remove the associations and inferences connected with the to-be-ignored claim (Mazis and Adkinson 1976).

According to this analysis, an ignore cue might be sufficiently strong to block the challenged claim itself. However, since the ignore cue is ambiguous and inexplicit, it is not sufficiently strong to undo the associative network linking the non-challenged claims and to substitute a new inferential network. Because the non-challenged claims still contain meanings consistent with the challenged claim, discounting fails. Furthermore, this failure should be more pronounced following elaborative encoding because the non-challenged claims contain extensive elaborations and inferences consistent with the challenged claims (Schul and Burnstein 1985).

If the above analysis is correct, it follows that refute cues might be more effective than ignore cues in removing the inferences and associations that were consistent with the challenged claims. Under this condition, the typical effect found with ignore cues (namely, that discounting a claim is more difficult following elaborative than non-elaborative encoding) may disappear or even be reversed. This may occur because the strength and explicitness of a refute cue pose a problem for the consumer, who must reconcile the message and the refute cue, which have clearly op-

posite implications. The contrast between the discounting cue and the advocacy of the highly coherent message representation that is likely to be constructed following elaborative encoding (Burnstein and Schul 1983; Fiske and Dyer 1985; Sentis and Burnstein 1979) may highlight the disparity between the message and the refute cue. Under this condition, the refute cue may detract strongly from the effectiveness of the message. This is especially likely to occur when the source of the discounting cue is trustworthy, as is the case with corrective advertising agents such as the court or the FTC.

On the other hand, when one does not elaborate on the message information, the claims in the message might be coded within multiple associative structures with fewer associations among them (Mazursky and Schul 1988). To reconcile inconsistencies between the challenged claim and the refute cue under this condition, one can reinterpret only the discounted attribute, while the other claims still support the original position. Thus, the influence of a refute cue may not differ as a function of the degree of elaboration the message underwent, or the refute cue might even have a stronger influence following elaborative encoding than following non-elaborative encoding of the message. In statistical terms, this analysis implies that the effects of the type of discounting (ignore versus refute cues) and the type of encoding (elaborative versus non-elaborative) interact.

We have so far assumed that the post-discounting judgment is derived from the entire assembly of claims and discounting cue. We shall refer to such judgments as *global* judgments. However, consumers may make two additional types of judgments to which the above analysis may not apply. In challenged attribute (CA) judgments, consumers are queried directly about the attribute that was challenged by the discounting appeal (e.g., "Does Listerine help prevent colds?"). CA judgments are distinct from global judgments, which reflect all the attributes known about the product (e.g., "Would you buy Listerine?"). There are also non-challenged attribute (NCA) judgments. In NCA judgments, people are asked about attributes that are not being directly challenged by the discounting cue (e.g., "Do you like the package of Listerine?").

The distinction among these three types of judgments is critical for interpreting and testing the effects of encoding and types of discounting. Our analysis suggests that the type of encoding and the type of discounting cue may interact in determining global judgments. Since CA judgments reflect a specific attribute, they ought to be influenced mainly by the nature of the discounting appeal and relatively little by the degree of elaborative encoding. In contrast, NCA judgments should be affected much more by the extent of elaborative encoding (especially if one adds

<sup>1</sup>It is important to note that the generation of the elaborations in this line of research is not arbitrary. Rather, associations are generated between the challenged claim and all other claims. Because of this, the challenged claim becomes more central in the representation of the message (cf. Wishner 1960).

valenced inferences to the message by elaborating on the information). Since the discounting appeal does not challenge the attributes underlying the NCA judgments, they should be less influenced by the nature of the discounting cue. This might prove important for policy-makers. When one intends to construct a corrective message following misinformation in an ad, does one try to influence judgments about that particular attribute (i.e., CA judgments), judgments about other attributes as well (i.e., NCA judgments), or global judgments of the product (see Wilkie et al. 1984 for a discussion of side effects of corrective advertisement)?

To summarize, the present study explores the interplay between the way the message is encoded and represented in memory and the type of discounting appeal on different product judgments. Experiment 1 explores the impact of ignore and refute discounting cues on global and CA judgments under conditions of highly elaborative and non-elaborative encoding of the message. Experiment 2 extends the findings of Experiment 1 by utilizing a different product and a different elaborative encoding procedure and by adding NCA judgments to the design.

## EXPERIMENT 1

### Method

One hundred fifty-three individuals participated in the study. All were parents of young children (up to four years of age) at the time of the study. Subjects were contacted at home or in a city park of a large city in Israel. They were paid for their participation. Approximately 75 percent of them were females.

*Design.* The experiment involves six between-subjects conditions. Four of them were created by crossing a discounting cue manipulation (i.e., ignore versus refute appeals) with an encoding manipulation (i.e., elaborative versus non-elaborative encoding). Subjects in the two remaining conditions served as controls and did not receive the discounting cues. In one control condition subjects engaged in elaborative encoding; in the other, they engaged in non-elaborative encoding. The experiment also involves one within-subject factor, namely, type of judgment (global versus CA).

*Procedure.* Subjects were assigned randomly to one of the six conditions by means of the questionnaire they received. The first page of the questionnaire contained a message consisting of eight claims advocating the purchase of a fictitious baby stroller. Then, the elaborative encoding manipulation was delivered. Immediately after, subjects who were not in the control conditions were given the discounting cue in the form of a written claim attributed to the Israeli Con-

sumer Protection Authority. On the next page, all subjects were asked to make five judgments (see the dependent measures in a following section). Finally, they were asked to recall the claims in the message.

*Elaborative Encoding Manipulation.* Subjects in the elaborative encoding conditions were asked to write one sentence explaining how each of the advertised claims might contribute to the durability of the stroller, which was later the target for the discounting manipulation. Similar procedures have been used by Ross and colleagues (e.g., Anderson et al. 1980; Ross et al. 1977) to generate associative links between challenged and non-challenged information.

*Message and Discounting Cues.* The original message informed subjects that the stroller (1) is manufactured in Belgium; (2) was tested by the Belgian Institute and found extremely durable in normal usage; (3) underwent a special anti-rust treatment; (4) has a double spring system; (5) is built from a new alloy that is especially strong and light; (6) can be easily disassembled; (7) can be easily washed; and (8) is reasonably priced. (The price given was the average price of strollers in Israel.) Subjects in the elaborative-encoding conditions received the claims in the listed order to facilitate encoding based on the durability of the stroller. Subjects in the non-elaborative encoding received the claims in a different order (1, 6, 7, 2, 3, 4, 5, 8) so that the organizing theme of the message would not involve durability and strength. Claim 2 was the challenged claim. Note that the procedure confounds the order of presentation of claims and the type of encoding. This confound will be considered in a subsequent section.

In the ignore-cue condition, subjects were told that the Israeli Consumer Protection Authority (ICPA) had stated that the tests performed by the Belgian Institute were not valid in Israel, since usage conditions are different in Israel and Belgium. Not having tested the stroller, the ICPA could not give a recommendation with respect to its durability but recommended that consumers ignore the information about durability provided by the company when considering purchase of the stroller.

In the refute-cue condition, subjects were told that the ICPA had received many complaints about the durability of the stroller from dissatisfied customers in Israel and that the ICPA did not consider the stroller durable in Israel, recommending that consumers take this fact into account when considering the purchase of the stroller.

*Dependent Variables.* Subjects were asked to make judgments on seven-point scales regarding (1) their willingness to use the stroller in the future (a global judgment); (2) durability of the stroller (a CA judgment, since the discounting cue challenged the claim

TABLE 1  
MEANS OF THE DEPENDENT MEASURES (EXPERIMENT 1)

Type of judgment	Type of encoding and discounting cue					
	Elaborative			Non-elaborative		
	Ignore	Refute	No cue	Ignore	Refute	No cue
Global	5.40	3.16	5.72	4.40	3.50	5.34
CA judgment	5.00	3.16	5.20	4.75	2.88	5.32
Reporting bias	3.34	3.62	3.34	2.72	3.96	3.71

NOTE: The global judgment concerned subjects' willingness to use the product; the challenged attribute was durability, and the reporting bias was subjects' belief that the ad was misleading.

about durability in the original message); (3) their belief that the company attempted to mislead the consumer in the message; (4) their belief that the message is biased; (5) and their belief that the ICPA is trustworthy.<sup>2</sup>

## Results and Discussion

Data were first analyzed in a 2 (encoding: elaborative versus non-elaborative)  $\times$  3 (discounting cue: ignore versus refute versus no cue) between-subjects design. The comparisons of interest involve the main effect for discounting cue and the 2  $\times$  2 interaction contrast between type of encoding and type of discounting cue.

Table 1 displays the mean response to the global question inquiring about subjects' willingness to use the stroller. It was proposed that the effect of the discounting cue would differ as a function of the type of encoding. The interaction contrast was significant ( $F(1,145) = 4.36, p < 0.05$ ). Whereas the willingness to use the stroller was higher under elaborative than under non-elaborative encoding with an ignore cue ( $t(145) = 2.13, p < 0.05$ ), it was not significantly lower with a refute cue ( $t(145) = -0.72, p > 0.10$ ).<sup>3</sup> The interaction did not mask the main effect of type of discounting cue,  $F(1,145) = 24.21, p < 0.01$ . Willingness to use the stroller was highest when no discounting

had to be performed (5.53), marginally lower under the ignore cue condition (4.90,  $t(145) = 1.93, p < 0.07$  for the control-ignore difference), and lowest under the refute condition (3.33,  $t(145) = 4.85, p < 0.01$  for the ignore-refute difference). The main effect for type of encoding failed to reach significance ( $F < 1$ ).

Following the judgment about their willingness to use the stroller, subjects indicated their belief about the durability of the stroller—the CA judgment. Means of this judgment also appear in Table 1. A two-way ANOVA (encoding by discounting cue) revealed a significant effect for discounting,  $F(1,145) = 33.76, p < 0.01$ . The stroller was perceived as most durable when no discounting had to be done (5.25), less durable, though not significantly so, under the ignore condition (4.87,  $t(145) = 1.33, p > 0.10$ ), and least durable under the refute cue condition (3.02,  $t(145) = 6.35, p < 0.01$  for the ignore-refute difference). Neither the encoding main effect nor the interaction was significant ( $F_s < 1$ ).

The two analyses suggest that the interplay between the type of discounting appeal (ignore versus refute) and the type of encoding (elaborative versus non-elaborative) differs as a function of the type of judgment (global or CA); i.e., the two factors (type of encoding and type of discounting cue) interact with global judgments but not with CA judgments. Since failure to find interaction does not indicate acceptance of the additive model, it is critical to test whether the two patterns are statistically different from each other.

To test whether the pattern of effects on global and CA judgments are statistically different, a three-way mixed-model ANOVA (type of discounting by type of encoding by type of judgment), with the last factor treated as a repeated measure, was performed on the data. The significant three-way interaction ( $F(1,145) = 4.13, p < 0.05$ ) suggests that global and CA judgments are influenced differently by the type of encoding and the discounting cue and that the changes in

<sup>2</sup>The discounting appeal may affect inferences not only about the product, but also about the source of the information about the product (i.e., the company that manufactures the stroller) and the source of the discounting appeal (i.e., the ICPA). The ICPA was perceived as highly trustworthy ( $\bar{X} = 6.11$  on a seven-point scale), with no significant effects or interaction due to our experimental manipulations. The two judgments regarding the company's attempt to mislead ( $r = 0.68$ ) were averaged to yield a reporting bias index (see Table 1). A higher reporting bias was attributed to the company under the refute (3.79) than under the ignore condition (3.03,  $t(145) = 2.37, p < 0.05$ ). The main effect for encoding and the interaction failed to reach significance.

<sup>3</sup>The error term for all pairwise comparisons reported herein was the within-group mean square from the ANOVA.

global judgments cannot be directly inferred from changes in the challenged attributes.

### Alternative Explanations

An alternative explanation of the results as stemming from an order effect (Dreben, Fiske, and Hastie 1979; Risky 1979) is ruled out by the lack of difference between elaborative and non-elaborative encoding in the control conditions. Remember that subjects in the non-elaborative encoding condition received the claims in a different order than subjects in the elaborative encoding condition. With an order effect, elaborative and non-elaborative encoding would have produced different judgment results in the control conditions, which was not the case ( $t(145) = 0.80, p > 0.20$ ).

The results could also have been attributed to differential recall of the claims in the discounting and encoding conditions. Recall protocols were scored according to meaning criterion (i.e., a claim was coded as being correctly recalled if the subject listed its central meaning elements (for example, "does not rust" for Claim 3). Overall, subjects who underwent elaborative encoding recalled the claims more successfully (5.68 of the eight claims in the message) than those in the non-elaborative encoding condition (4.46,  $F(1,145) = 27.02, p < 0.01$ ). Memory for the non-challenged claims did not vary as a function of the discounting cue. Memory for the challenged claim, in contrast, did differ: Whereas only 40 percent of the subjects in the ignore cue condition recalled the challenged claim, 60 percent of the subjects in the refute condition remembered that the message described the stroller as durable. Thus, the greater persuasive power of the refute appeal was not carried by blocking the durability claim from memory, but rather by highlighting it (Schul and Burnstein 1985).

To summarize, the results of Experiment 1 suggest that for global judgments the impact of ignore discounting cues is weaker following elaborative encoding (i.e., discounting becomes less successful) while that of refute cues shows a non-significant trend in the opposite direction (i.e., discounting becomes easier following elaborative encoding). This interaction, however, occurred only with the global judgment and not with the CA judgment.

## EXPERIMENT 2

Experiment 2 was designed with two purposes in mind. First, it aimed to replicate and generalize Experiment 1 using a different product, a different encoding manipulation, and different discounting cues. Second, Experiment 2 was concerned with whether the effect of elaborative encoding depends on the relevance of the dimension of elaboration to the dis-

counting appeal. To illustrate, consider two messages describing a new brand of facial tissues and differing in one claim only. The claim in one message describes the tissue as "softer and more gentle than any competing brand." The claim in the second message describes the tissue as "strong and does not tear easily." Imagine an elaborative encoding manipulation whereby subjects are given a picture of a fluffy kitten, which has been found to be highly associated with softness but not with strength (Mitchell and Olson 1981), and asked to think about the relationship between the tissue and the kitten. We assume that subjects thinking about the relationship between the fluffy kitten and the tissue tend to link the different message attributes to "softness" (either to the verbal or to the pictorial representation). The non-challenged claims, therefore, ought to contain more inferences and associations consistent with the softness attribute. As a result, discounting of the softness attribute might be more difficult than discounting of the strength attribute.

In addition to the global and CA judgments used in Experiment 1, Experiment 2 utilized NCA judgments. Utilization of these judgments enabled us to explore how elaborative encoding influences the attributes that are not being challenged. According to our analysis, during elaborative encoding the different claims are linked to each other as well as to inferences retrieved from memory. As a result, NCA judgments should be more favorable following highly elaborative encoding than following non-elaborative encoding.

In contrast to global and CA judgments, NCA judgments should be minimally influenced by the nature of the discounting appeal. Past research utilized corrective ads that were, in effect, refute messages to test the effect of corrective campaigns on challenged and non-challenged attributes. In line with this hypothesis, Mizerski, Allison, and Calvert (1980) and Mazis and Adkinson (1976; noncorrective versus FTC corrective conditions) reported that the corrective campaign influenced CA but not NCA judgments. Dyer and Kuehl (1978), in contrast, reported significant effects on challenged and non-challenged beliefs. This latter finding might be attributed to procedural differences between the latter study and the earlier ones (including its repeated measure design).

## Method

One hundred ten undergraduate students enrolled in business and communication courses participated in the study, which was run during the class period. Subjects were assigned to the experimental treatments randomly by means of the questionnaire they received. Approximately equal numbers of males and females participated in the study.

*Design.* The experiment consists of a 2 (type of encoding: elaborative versus non-elaborative)  $\times$  2 (discounting cue: ignore versus refute)  $\times$  2 (message: soft versus strong) between-subjects design with the type of judgment (global versus CA versus NCA) as a within-subject factor.

*Procedure and Stimulus Material.* The study was presented as an investigation of people's responses to an ad for a new brand of tissues. All subjects were first exposed to an ad consisting of a picture of a fluffy kitten accompanied by five claims describing the new (fictitious) tissue. Four of the five claims were common in all experimental conditions. They included information about the package ("available in plastic or cardboard box"), scent ("a superior smell"), availability ("available in any nearby supermarket or pharmacy"), and price ("price is not higher than competing brands").

The fifth claim, which was later the target for the discounting manipulation, was different in the two message conditions. Subjects in the soft message condition were provided with a claim specifying the softness quality of the tissue ("softer and more gentle than any competing brand"). Subjects in the strong message condition received a claim pertaining to the strength of the tissue ("strong and does not tear easily").

Next, the encoding manipulation was delivered. Subjects in the elaborative encoding conditions were again given a picture of the kitten and were told to think about it with regard to the tissues while indicating on a nine-point scale whether the kitten represents innocence, is likable, is cute, and whether it represents gentleness. (Subjects' ratings were uniformly high, around seven on a nine-point scale, with no significant difference among the four conditions). It is assumed that because of the association between the kitten and the message, the formation of the four judgments about the kitten induces subjects to elaborate on the different claims in the message, especially along the softness/gentleness dimension (see Brewer and Nakamura 1984 regarding the influence of schemata on processing of objects).

Immediately afterward, the discounting message was conveyed to all subjects. Four discounting appeals—message (soft versus strong) by type of discounting (ignore versus refute)—were constructed. Each was said to describe the results from trials with 200 customers who were tested by an independent testing company.

The ignore discounting cue delivered to the strong message condition informed subjects that consumers in the survey had agreed that the tissues did not tear or disintegrate when used for wiping hands, but participants had thought that the tissues might tear in other kinds of usage not tested. Therefore, the com-

**TABLE 2**  
MEANS OF THE DEPENDENT MEASURES (EXPERIMENT 2)

Type of judgment	Type of encoding and discounting cue			
	Elaborative		Non-elaborative	
	Ignore	Refute	Ignore	Refute
<b>Soft message</b>				
Global	5.80	5.57	3.84	4.42
CA judgment (softness)	5.20	5.39	3.15	2.53
NCA judgment (strength)	3.73	2.78	4.61	3.85
Reporting bias	5.20	4.21	4.23	5.28
<b>Strong message</b>				
Global	5.92	4.76	3.57	4.23
CA judgment (strength)	3.46	3.38	2.42	2.53
NCA judgment (softness)	6.14	4.92	5.60	5.50
Reporting bias	4.64	4.84	4.07	3.53

pany that administered the test recommended that consumers ought to ignore the claim asserting that the tissues are strong and do not disintegrate. Furthermore, the company suggested that consumers draw their own conclusions as to whether the tissues are strong. The ignore discounting cue for the soft message condition was essentially the same except that the consumers' response was about the softness rather than the strength attribute.<sup>4</sup>

In the refute discounting cue that followed the strong message, it was reported that most consumers who tried the tissues complained that the tissues were not strong and actually did tear in most kinds of usages (e.g., wiping mouth or hands). Therefore, the company that administered the test recommended that new consumers, take into account that the tissues are not strong and actually tear in use when considering the purchase of the tissues. Similarly, the refute cue following the soft message disclosed that consumers complained that the tissues were not soft.

On the next page of the questionnaire, subjects were asked to make judgments on four key issues: Two questions pertained to the perceived softness of the tissues (e.g., "the likelihood that the tissues could be used to wipe babies"). These function as CA judgments for subjects in the soft message condition and as NCA judgments for those in the strong message condition (see Table 2). Two judgments pertained to beliefs about the strength of the tissue (e.g., "the like-

<sup>4</sup>Despite differences in degree of informativeness of the ignore cues in Experiments 1 and 2 (note the wording of the ignore cues in the two experiments), they are similar in two important respects: (1) the ignore cues in both experiments are more ambiguous than the refute cues, and (2) the conclusion of the cues explicitly instructs the consumer to ignore a particular claim in the message.

likelihood of absorbing liquids without ripping"). These serve as CA judgments for subjects in the strong condition and as NCA judgments for those in the soft message conditions. One question assessed the overall quality of the tissue (good/bad dimension) and served as a global judgment for all subjects. Finally, one question inquired about subjects' beliefs that the manufacturer was attempting to mislead consumers in its ad.<sup>5</sup> All judgments were made on nine-point scales. On the last page of the questionnaire, subjects were asked to recall the original five claims.

## Results and Discussion

A three-way ANOVA—type of encoding (elaborative versus non-elaborative) by discounting cue (ignore versus refute) by message (soft versus strong)—was performed on the responses to the global judgment about the overall quality of the tissue. Means are presented in Table 2.

Overall, the tissues were evaluated more positively following an ignore cue (5.53) than following a refute cue (4.01),  $F(1,102) = 21.37, p < 0.01$ . Replicating the finding of Experiment 1, the interaction between the type of encoding and the type of discounting cue was significant,  $F(1,102) = 4.12, p < 0.05$ . The ignore discounting appeal was less effective with the global judgment following elaborative encoding (5.86) than following non-elaborative encoding (5.18,  $t(102) = 1.47, p > 0.10$ ), while the refute discounting appeal was more effective following elaborative encoding (3.70) than following non-elaborative encoding (4.33,  $t(102) = -1.39, p > 0.10$ ). Even though each of these trends was not statistically significant, they generate a statistically significant interaction, which could be highlighted by an analysis of simple effects of discounting cue within level of encoding condition. The analysis reveals only a marginally significant difference between ignore and refute cues following non-elaborative encoding (5.18 versus 4.33,  $t(102) = 1.86, p < 0.10$ ), but a large and significant difference following elaborative encoding (5.86 versus 3.70,  $t(102) = 4.87, p < 0.01$ ). None of the other effects or interactions reached significance.

Next, we explored the CA and NCA judgments. The two questions about the perceived softness of the tissues were highly correlated ( $r(110) = 0.73, p < 0.01$ ) and were averaged to yield a softness score. Similarly, the two questions that assessed the perceived strength of the tissues were correlated ( $r(110) = 0.60, p < 0.01$ ) and were averaged to form a score of tissue strength. Two indices were generated from these scores, one representing CA judgments (the

softness score in the soft condition and the strength score in the strong condition) and one representing the NCA judgments (the softness score in the strong condition and the strength score in the soft condition). These means appear in Table 2.

A three-way ANOVA (encoding by discounting cue by message) performed on the CA judgments revealed a significant difference due to type of discounting cue,  $F(1,102) = 26.5, p < 0.01$ , indicating that the refute cue was more effective (2.65) than the ignore cue (4.39). Judgments of softness in the soft message condition were more positive than judgments of strength in the strong message condition (4.10 versus 2.95,  $F(1,102) = 11.48, p < 0.01$ ). Finally, the effectiveness of the discounting appeal varied according to the message condition, as indicated by a significant discounting cue by message interaction,  $F(1,102) = 5.25, p < 0.05$ . There was little difference between the two message conditions following the refute discounting cue (2.83 versus 2.48,  $t(102) = 0.87, p > 0.10$ ). There was a pronounced difference following an ignore cue (5.29 versus 3.42, for the soft and strong message conditions,  $t(102) = 4.91, p < 0.01$ ). The encoding by discounting cue interaction that was observed with the global judgment, as well as the remaining effects or interactions, failed to reach significance.

A three-way ANOVA (encoding by discounting cue by message) performed on the NCA judgments revealed only two significant effects. Judgments following elaborative encoding were higher than those following non-elaborative encoding (5.00 versus 4.23,  $F(1,102) = 4.04, p < 0.05$ ). Also, judgments of softness in the strong condition (5.55) were higher than those of strength in the soft message condition (3.73,  $F(1,102) = 22.68, p < 0.01$ ).

Finally, a four-way, mixed-model ANOVA (discounting cue by encoding by message by three types of judgments) was performed on the results to explore whether the patterns observed with the three types of judgments are significantly different from each other. This analysis revealed that, as in Experiment 1, the encoding by discounting cue interaction with the global judgments was different from that observed with the CA judgments. This was suggested by a significant three-way interaction contrast between encoding, discounting, and type of judgment (global versus CA),  $F(1,102) = 4.46, p < 0.05$ . Also, the analysis revealed that the effectiveness of the two discounting cues was significantly different between the CA and NCA judgments,  $F(1,102) = 19.42, p < 0.01$ .

Following the judgments, subjects were asked to recall the claims in the original message. As in Experiment 1, recall protocols were scored according to a meaning criterion. Recall of the non-challenged claims did not differ significantly as a function of the elaborative encoding manipulation. Recall of the

<sup>5</sup>There were no significant differences among the eight experimental conditions with regard to this measure. It will not be discussed further.



TABLE 3

PROPORTION OF SUBJECTS RECALLING TARGET ATTRIBUTE  
(EXPERIMENT 2)

Target attribute	Type of encoding and claim			
	Elaborative		Non-elaborative	
	Soft	Strong	Soft	Strong
Softness	.75	.50	.89	.26
Strength	.00	.64	.03	.80

challenged claim did. Table 3 presents the proportion of cases in which subjects mentioned the softness and the strength attributes during recall. Note that virtually no subject who received the soft message mentioned the strength attribute. The proportions of subjects who mentioned the softness attribute in recall were analyzed using a Logit model. The analysis indicates that subjects who received the soft message tended to mention the softness attribute more than those who received the strong message,  $z = 4.43$ ,  $p < 0.01$ . In addition, the effect of encoding manipulation was different in the two message conditions, as indicated by the significant interaction,  $z = 1.94$ ,  $p < 0.06$ . Finally, note that 26 percent of the subjects who did not receive a claim that bore directly on softness and who were not instructed to encode the message elaboratively mentioned the softness attribute.

The findings suggest that there has been an initial elaboration along the softness dimension, possibly induced by the picture of the fluffy kitten, even when no elaborative encoding instructions were given. Elaborative encoding instructions increased the amount of inferences associated with the softness attribute. However, it appears that the relatively extensive initial elaboration in the soft message condition may have limited the opportunity for additional inferences to be formed as a consequence of the encoding manipulation. This may account for the stronger (albeit non-significant) effect of the encoding manipulation in the strong relative to the soft message conditions in the analysis of the global judgments.

## GENERAL DISCUSSION

The study is concerned with the effectiveness of discounting cues in the context of consumers' decision processes. The two experiments suggest that the influence of the type of discounting appeal and the type of encoding differed according to the type of judgment. For global judgments, the type of discounting and the type of encoding interacted so that elaborative encoding weakened the effectiveness of an ignore cue but not that of a refute cue. In contrast, CA judgments

were influenced strongly by the type of discounting (i.e., ignore versus refute) but not by the encoding of the message (i.e., elaborative versus non-elaborative). Finally, NCA judgments were not influenced by the type of discounting cue. They were influenced only by the nature of encoding; to wit, they were more extreme following elaborative encoding of the message.

Our analysis ascribes these effects to the cognitive processes that affect the interpretation of the challenged and non-challenged claims. A discounting cue has two functions: (1) to provide information about the product and (2) to signal a process of reinterpretation of the non-challenged claims. Refute discounting appeals fulfill both functions better than ignore appeals. Moreover, due to their specificity and directness, refute appeals are less sensitive than ignore appeals to the nature of the original encoding, and, if anything, claims are discounted more strongly in more highly elaborated messages.

With CA judgments, the challenged claim becomes highlighted, as does the discounting cue. As a consequence, one can focus on the challenged attribute, and the impact of the non-challenged attributes is minimized. Since the interaction effect between the type of discounting cue and the nature of the encoding depends on the representation of the other claims, it disappears with CA judgments. What remains is an overall effect of the strength and explicitness of the discounting cue. In contrast, when NCA judgments are being made, the impact of the discounting cue is attenuated or diminishes altogether because the cue is relevant primarily to the challenged attribute. NCA judgments, therefore, are guided by the inferences and elaborations along dimensions that are relatively unrelated to the challenged claims. These effects are important in light of the FTC guidelines that the corrective ad campaign be nonpunitive, namely, that it should not affect claims that were not false.

The manipulation of elaborative encoding has theoretical value because it enables us to test the mechanisms or processes involved in discounting. Does it have any field counterparts? We assume that it does. When one of the claims in the message provides the theme for the message (i.e., when it is central), consumers may spontaneously attempt to elaborate on the other claims and interpret them in line with that central claim. In this sense, the central claim may induce consumers to elaborate on the other claims, generate inferences that are consistent with it, and represent them in memory, in much the same way that the elaborative encoding did in the present experiments. This is especially likely to occur with repeated exposure of the message. Our findings suggest that discounting is hindered by elaborative encoding with an ignore cue, but not with a refute cue. If this analysis is correct, then it might be more difficult to ignore a

central claim than a peripheral one. However, refutation of a central claim might be as effective as refutation of a peripheral claim, or even more so.

It could be argued that our findings should be interpreted according to a generalized positive context effect or a halo effect (Kaplan 1975). For example, it might be that the picture of the cute, fluffy kitten in Experiment 2 induced a positive affect and that the post-discounting judgments were contaminated by it. Such an explanation may not easily account for the different patterns in the interplay between the type of encoding and the discounting cue. For example, to predict the interaction between the type of encoding and the discounting cue with global judgments, one must make two assumptions: that elaborative encoding increases the positive affect and that the ignore discounting cue was assimilated to the message whereas the refute cue was contrasted with it (Sherif and Hovland 1961). These assumptions are not unreasonable. However, it is unclear why these mechanisms should operate with global judgments and not with CA or NCA judgments.

It was argued that refute and ignore cues differ in terms of both their ambiguity and their strength; that is, refute cues provide explicit information and have stronger persuasive potential than ignore cues. To gain more understanding of the discounting phenomenon, future research should attempt to untangle these two variables by manipulating the explicitness and the strength independently (e.g., the strength can be manipulated independently from explicitness through the trustworthiness or the expertise of its source; see McGuire 1985 for a review). Dyer and Kuehl's (1974) pioneering effort in studying corrective advertising could provide a starting point for this research. The time lag between the encoding and the presentation of the discounting cue should also be investigated, since the properties of the associative structure representing the message might change with time (Dyer and Kuehl 1978; Mazursky and Schul 1988). Finally, studies should compare and contrast different manipulations that may influence the extent of elaboration and organization of the message, such as repeated exposure (Sawyer 1981) or the order in which different claims in the message are presented.

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