



To Buy or Not to Buy: Response Mode Effects on Consumer Choice

Author(s): Ravi Dhar and Stephen M. Nowlis

Source: *Journal of Marketing Research*, Vol. 41, No. 4 (Nov., 2004), pp. 423-432

Published by: [American Marketing Association](#)

Stable URL: <http://www.jstor.org/stable/30164707>

Accessed: 19/11/2010 11:35

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RAVI DHAR and STEPHEN M. NOWLIS*

This article extends research on evaluation differences in response modes to situations in which the no-choice option is available. Prior research on choice deferral has presented the no-choice option as just another response option (i.e., an unconditional brand-choice response mode), which has its primary focus on the selection decision. However, consumers in many marketplace situations may consider the buy/no-buy decision before the selection decision (i.e., a buy/no-buy response mode). This article examines the differences in evaluation processes and choice deferral for the two response modes. The authors' theoretical account suggests that an initial focus on the buy/no-buy decision activates greater use of alternative-based evaluations, thus making purchase deferral more sensitive to the valence of shared features and category reference information than in the unconditional brand-choice mode. The authors provide process evidence for their account and consider limiting conditions.

To Buy or Not to Buy: Response Mode Effects on Consumer Choice

Consumer decisions often require a choice among several alternatives in the marketplace. In addition, many shopping occasions provide consumers with the option of not buying in order to explore additional alternatives or to wait. Thus, the act of purchase typically entails making both a buy/no-buy decision (whether/when to buy) and a selection decision (which option to buy), such that choice incidence is a joint consequence of the two decisions. The order in which the consumer makes the two decisions in the marketplace can vary across shopping situations. For example, if a consumer is deciding among menus of options (e.g., two malls or two stores) from which he or she will select an item, the consumer might first focus on the buy/no-buy decision and then decide on the specific alternative to be purchased. In contrast, in some shopping situations, a consumer might compare the available options to decide which, if any, item to purchase, such that the initial focus is on the selection decision. The extent to which the two response modes occur in practice (the buy/no-buy mode versus an unconditional

brand-choice mode¹) can depend on consumer goals and on marketer-initiated strategies.

Although the two response modes pose logically equivalent end states, we propose that they activate different evaluation processes that result in systematic differences in purchase deferral. Building on research on evaluation strategies (e.g., Bettman and Sujan 1987; Nowlis and Simonson 1997; Sanbonmatsu, Kardes, and Gibson 1991) and choice deferral (e.g., Dhar 1997; Dhar and Sherman 1996), we propose that the two response modes differ in the degree to which they activate evaluation processes that are attribute based or alternative based. Specifically, when the buy/no-buy decision is the initial focus (referred to hereafter as a buy/no-buy response mode), consumer decision processes are more likely to be characterized by alternative-based evaluations (i.e., whether an option is acceptable). In contrast, consumers who are in an unconditional brand-choice response mode are more likely to compare rival brands with each other, a process that results in more attribute-based evaluations.

That the two response modes activate different comparison processes (i.e., whether options are evaluated comparatively or separately) can affect the relative weight assigned to the different features of the options and, in turn, the magnitude of deferral. We show that compared with an unconditional brand-choice response mode, a buy/no-buy response mode increases the use of alternative-based evaluation

*Ravi Dhar is Professor of Marketing and Co-director of the Center for Customer Insights, School of Management, Yale University (e-mail: ravi.dhar@yale.edu). Stephen M. Nowlis is AT&T Research Professor of Marketing, W.P. Carey School of Business, Arizona State University (e-mail: stephen.nowlis@asu.edu). The authors are listed alphabetically and contributed equally to the research. This article has benefited from the comments of Guest Editor Mita Sujan, the two anonymous *JMR* reviewers, and Itamar Simonson.

¹Note that in an unconditional brand-choice response mode, the consumer has the option not to choose. This is different from conditional brand choice, in which the no-choice option is not available.

strategies and the weight assigned to shared features. Furthermore, the difference in strategies across the two response modes mediates the difference in deferral that is observed. We also show that differences in deferral across the two response modes arise as a result of changes in attribute comparisons, not as a result of a difference in the salience of the buy/no-buy decision. Consequently, we show that when attribute-based comparisons are facilitated in a modified buy/no-buy mode by virtue of consumers making the selection decision before the deferral decision, there is no difference in deferral from that in the unconditional brand-choice mode (for an overview of the different response modes, see Figure 1).

To examine further how comparative processes can affect deferral in the two response modes, we examine the effect of category reference information, such as how the options might compare with other unavailable options. In support of the underlying process that the two response modes alter the degree to which consumers compare options with each other or evaluate them separately, we show that choice deferral is more likely to be influenced by category reference effects in the buy/no-buy mode than in the unconditional brand-choice mode (Bell and Bucklin 1999; Bettman and Park 1980).

In the remainder of this article, we first review prior research that is relevant to comparative processes and choice outcomes, and we then develop several hypotheses that we test across a series of three studies. Using the Mouselab program, we also examine the decision processes that we predict mediate the effect of the two response modes on subsequent deferral. We conclude with a discussion of the theoretical and practical implications of the findings.

RESPONSE MODE EFFECTS ON CHOICE PROCESSES

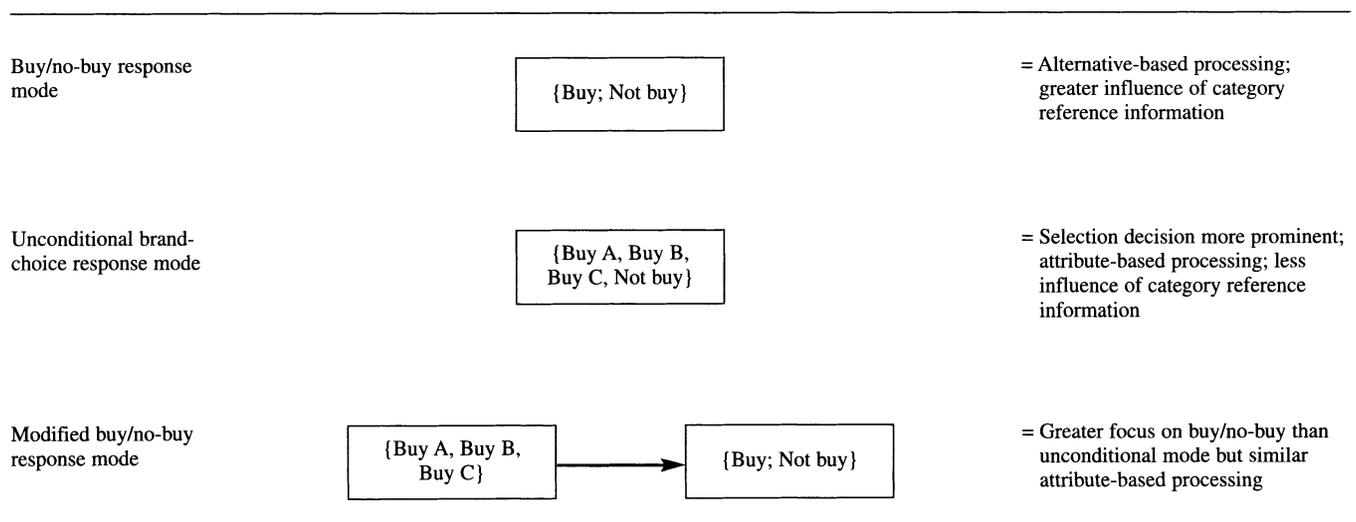
Although quantitative models in marketing have long examined consumer choice that results jointly from decisions about whether, which, and how much to buy (Chiang 1991; Gupta 1988), behavioral choice research has focused mainly on exploring the “which,” or the brand selection question. More recently, behavioral research has indirectly

examined the “whether” question by examining choice processes and outcomes in cases in which consumers are provided with the buy/no-buy option (Dhar 1997; Dhar and Simonson 2003; Tversky and Shafir 1992). The no-buy response in most of these studies was operationalized as the option to defer purchase. The designs of these studies were such that the deferral option was always presented as just another response option to the respondent (e.g., {buy A, buy B, buy neither}).

Although many consumer choices resemble the buying context described by the unconditional brand-choice response mode we discussed previously, another way to confront the same purchase decision is for the consumer to focus first on the buy/no-buy decision (e.g., {buy {A or B}, buy neither}) before choosing a specific brand ({buy A, buy B}). Although the initial focus on purchase incidence in the marketplace might occur for several reasons—such as purchase timing (buying now rather than later), store selection (buying at one store rather than another), or category incidence (buying in a category or not)—we focus on comparing the effect of the two response modes on decision processes and deferral outcomes. Building on previous research on comparison processes (Dhar and Sherman 1996; Sanbonmatsu, Kardes, and Gibson 1991), we propose that the two response modes prompt different comparison processes that result in different degrees of deferral.

The making of comparisons is central to consumer decision making, and several researchers have studied the different evaluation strategies that underlie comparative judgments and the consequence of the comparison processes for decision outcomes (e.g., Nowlis and Simonson 1997). A fundamental dimension on which evaluation strategies differ is whether consumers evaluate information by examining particular alternatives across attributes (alternative based) or by examining particular attributes across alternatives (attribute based). The preferred strategy in these cases is determined through an interaction of consumer goals and task-related factors (Bettman, Luce, and Payne 1999). Although much of this research has been conducted in the domain of forced choice, recent research also has examined the decision processes in the unconditional brand-choice

Figure 1
OVERVIEW OF RESPONSE MODES



response mode. A key finding in this research is that there is an initial focus on the selection decision, which is then followed by a consideration of the buy/no-buy decision.² In other words, consumers first examine attribute-based differences among the alternatives. Because this comparative processing emphasizes unique features, the same features are then more accessible to consumers in making the buy/no-buy decision, which occurs next.

We propose that if consumers focus first on the buy/no-buy decision, they are more likely to use alternative-based evaluation strategies. There are two reasons why the buy/no-buy response mode is more likely to activate an alternative-based evaluation strategy than an unconditional brand-choice mode. First, consumers in this response mode are deciding whether any of the options described meet their purchase criteria, a task that is more easily performed by evaluating each option in isolation. Second, the focus on the selection decision in the unconditional brand-choice response mode increases the use of attribute-wise comparisons because they are easier to perform for the small sets of alternatives examined in previous research. The difference in evaluation strategies in the two response modes is likely to affect deferral when options in the choice sets have some shared and some unique features (e.g., Dhar and Sherman 1996).

The greater use of alternative-based evaluation strategies in the buy/no-buy response mode means that respondents are more likely to take into account both the shared and the unique features of an option. This suggests that the relative weight assigned to the shared features is greater in this response mode than in the unconditional brand-choice response mode, in which the attribute-based evaluation emphasizes unique features. Therefore, when the choice set consists of options with shared bad features, the negative impact of the bad features on deferral is more likely to be underweighted in the unconditional brand-choice response mode than in the buy/no-buy mode. For example, if a consumer is choosing between two microwave ovens that both offer a poor warranty, this information is likely to receive lower weight in the unconditional brand-choice response mode. In turn, this is likely to make the two alternatives appear relatively more attractive and consequently result in a lower likelihood of deferral than in the buy/no-buy mode.

Our pilot study that we describe subsequently tests this prediction, which was implicit in the work of Dhar and Nowlis (1999) but not discussed in that article, which instead focused on the effect of time pressure on deferral, not on the effect of response modes. In addition, an alternative account for the results in that article is that a fraction of the subjects were choosing randomly and thus were more likely to choose the deferral option in the buy/no-buy mode because that mode provided subjects with a choice among only two responses (buy or not buy), whereas the unconditional brand-choice mode provided three response options (choose Brand A, choose Brand B, or not choose). To rule out this explanation, the pilot study also examines binary choice sets in which the two options provided have unique bad features and shared good features. An alternative

account based on random choice again predicts greater deferral in the buy/no-buy response mode, given that this mode has only two options. However, our account predicts just the opposite; namely, greater consideration of the common (good) features result in lower deferral in the buy/no-buy response mode than in the unconditional brand-choice mode. In addition, we include another measure that should be affected by the proposed processing differences across the two response modes. Because we argue that the unconditional brand-choice response mode leads to greater use of attribute-based evaluation that emphasizes the unique aspects of the options, we also predict that the options are rated more favorably in the unconditional brand-choice response mode than in the buy/no-buy mode when the unique features of the options are positive. We predict the reverse when the unique features of the options are negative.

PILOT STUDY: RESPONSE MODE EFFECTS ON CHOICE DEFERRAL

Participants in the pilot study were 143 undergraduate marketing students who were fulfilling a course requirement. In all cases, participants were presented with a binary choice set, wherein each option offered three good features and three bad features. The options shared the bad features, but the good features were unique to the options (e.g., Dhar and Nowlis 1999). Participants were randomly assigned to the unconditional brand-choice and the buy/no-buy response modes. They also rated their liking of each option on a scale from 1 = "strongly dislike" to 10 = "strongly like."

Consistent with our framework, choice deferral was greater in the buy/no-buy response mode than in the unconditional brand-choice mode. As is shown in Table 1, averaged across the two tested categories, 38% of participants chose the deferral option in the buy/no-buy mode, compared with only 23% in the unconditional brand-choice mode ($\chi^2[1] = 7.2, p < .01$). In addition, we analyzed the ratings for liking and found greater liking for the two products in the unconditional brand-choice mode ($M = 6.22$) than in the buy/no-buy mode ($M = 5.74$; $F(1, 284) = 9.61, p < .01$).

We also examined binary choice sets in which the two options had unique bad features and shared good features. As we stated previously, the alternative account based on random choice again predicts greater deferral in the buy/no-buy mode. However, our account predicts just the opposite;

Table 1
RESULTS FROM PILOT STUDY: SHARE OF RESPONDENTS CHOOSING THE DEFERRAL OPTION

<i>Product Category</i>	<i>Unconditional Brand-Choice Mode (%)</i>	<i>Buy/No-Buy Mode (%)</i>
<i>Unique Good and Shared Bad Features</i>		
Vacations	14	31
Restaurants	32	44
Totals	23	38
<i>Unique Bad and Shared Good Features</i>		
Portable computers	67	57
Blind dates	75	61
Totals	71	59

²This finding is supported by an analysis of decision processes that use think-aloud protocols (Dhar 1997) and process tracing (Luce 1998), which demonstrate that respondents who made more relative comparisons were more likely to choose the deferral option.

namely, greater consideration of the common (good) features will result in lower deferral in the buy/no-buy mode than in the unconditional brand-choice mode. Participants were 150 undergraduate marketing students who were fulfilling a course requirement. Averaged across the two tested categories, 71% of participants chose the deferral option in the unconditional brand-choice mode, compared with only 59% in the buy/no-buy mode ($\chi^2[1] = 4.06, p < .05$) (see Table 1). In addition, we found greater liking for the products in the buy/no-buy mode ($M = 4.52$) than in the unconditional brand-choice mode ($M = 4.11$; $F(1, 298) = 4.87, p < .05$).

The results from the pilot study are consistent with the notion that consumers are less likely to consider the shared features of the two options as a result of a greater use of attribute-based strategies in the unconditional brand-choice response mode than in the buy/no-buy mode. Although the choice shares and ratings of the two options are consistent with our theoretical predictions, we did not observe the actual evaluation strategies. For example, it is possible that subjects in the buy/no-buy mode also used attribute-based evaluation processes while taking into account shared features of the alternatives. To overcome this limitation, the next study gathers more direct evidence using the Mouselab program, a process-tracing technique (Payne, Bettman, and Johnson 1988).

An advantage of observing the choice processes is that they can then be used to perform a mediational test for the proposed effect of differences in the evaluation strategies on deferral. Consistent with our theoretical framework, we expect subjects to engage in greater attribute-wise comparisons in the unconditional brand-choice response mode than in the buy/no-buy mode. This focus on attribute-wise comparisons is likely to decrease both the use of alternative-based processing and the relative attention paid to the shared features, compared with respondents in the buy/no-buy mode. Furthermore, this enables us to examine whether the effect on choice deferral is mediated by the proposed differences in comparative processing across the two response modes.

- H₁: Consumers engage in a greater degree of attribute-based processing in an unconditional brand-choice mode than in a buy/no-buy mode.
- H₂: Consumers acquire a greater ratio of unique information to shared information about the alternatives in an unconditional brand-choice mode than in a buy/no-buy mode.
- H₃: The degree of attribute-based processing across the two response modes mediates the subsequent preference for the deferral option.

STUDY 1: PROCESS DIFFERENCES FOR BUY/NO-BUY AND UNCONDITIONAL BRAND-CHOICE RESPONSE MODES

Method

Participants in Study 1 were 67 undergraduate marketing students who were fulfilling a course requirement. In all cases, participants were presented with two options, each of which offered three unique good features and three shared bad features (e.g., Dhar and Sherman 1996). For example, in the restaurant category, Restaurant A offered good desserts and drinks as well as wide selection, and it was easy to get to, whereas Restaurant B offered good appetiz-

ers, good entrées, and plenty of parking. Both restaurants had a long wait, tables close to one another, and below-average service. Each participant made choices in three different categories (vacations, restaurants, and school classes). We counterbalanced the order of the categories and found no significant order effects.

There were two between-subjects conditions. In the unconditional brand-choice mode, the procedure was similar to prior studies on choice deferral. In particular, pairs of options were described at a particular location, and, as in typical purchase situations, participants had the option of not buying and looking for other options at another location. For example, in the category of restaurants, respondents could "Choose Restaurant A," "Choose Restaurant B," or "Choose neither restaurant and go to another mall." In the buy/no-buy mode, the task elicited the buy/no-buy decision. Specifically, participants were told to choose either restaurant from the mall or to choose neither and go to another mall. For example, in the restaurant category, the choices were "Choose a restaurant from this mall" or "Choose neither restaurant and go to another mall."

In addition, we used the Mouselab program. Information was displayed in closed boxes that were presented in an option \times attribute matrix, in which subjects could reveal the information in each box by moving a mouse-controlled cursor to the relevant box. Mouselab recorded which boxes participants opened, in what sequence, and how much time they spent in each box. Participants began the experiment with instructions on how to access information in the boxes by using the mouse. They then completed a practice problem before making decisions in each of the three categories that were tested.

To test H₁, we needed a measure of the degree to which subjects used attribute- or alternative-based evaluation strategies. Thus, we calculated the number of alternative-based transitions minus the number of attribute-based transitions, divided by the total number of alternative- and attribute-based transitions combined, known as PATTERN (see, e.g., Payne, Bettman, and Johnson 1988). PATTERN can range from +1.0 to -1.0; more negative values represent more attribute-based processing. To test H₂, we needed to examine the degree to which subjects attended to common and unique features. Thus, we constructed a value for each participant that was equal to the number of unique features examined minus the number of common features examined, divided by the total number of unique and common features examined, which has been referred to as COMM (Dhar, Nowlis, and Sherman 1999). The value of this number can range from +1.0 to -1.0; positive numbers indicate a greater focus on unique features, and negative numbers indicate a greater focus on common features.

To test H₃, we needed to show through a mediation analysis that the degree to which consumers engage in attribute-based processing is indeed what may drive the difference in the share of the deferral option. In particular, to show mediation, we needed to demonstrate three relationships (Baron and Kenny 1986). First is that the independent variable, response mode, significantly affects the mediator, the degree of attribute-based processing. Second is that the mediator significantly affects the dependent variable, choice deferral. Third is that the effect of the response mode on

choice deferral is reduced or eliminated when the mediator is also included.

Results

Consistent with the results of the pilot study, we found greater choice deferral in the buy/no-buy mode than in the unconditional brand-choice mode for options with shared bad and unique good features. In particular, averaged across the three categories, 25% of participants deferred their choices in the unconditional brand-choice mode, and 52% deferred in the buy/no-buy mode ($\chi^2[1] = 9.9, p < .01$). We obtained similar results across the three tested categories.

H_1 predicts greater alternative-based processing in the buy/no-buy mode than in the unconditional brand-choice mode. To test this, we calculated the degree to which participants focused more on attribute- or alternative-based strategies (PATTERN). We then constructed an analysis of variance (ANOVA) model in which PATTERN was the dependent measure, and response mode was the independent variable. The main effect of response mode, which tests H_1 , was significant ($F(1, 199) = 9.50, p < .01$). Averaged across the three tested categories, this ratio was .383 in the brand-choice mode and .532 in the buy/no-buy mode. Thus, H_1 was supported.

We next investigated the ratio of unique features to common features that were examined (COMM). To test H_2 , we constructed an ANOVA model in which this ratio was the dependent measure, and response mode was the independent variable. The main effect of response mode, which tests H_2 , was significant ($F(1, 199) = 10.27, p < .01$). Averaged across the three tested categories, this ratio was .264 for unconditional brand-choice response mode and .143 for the buy/no-buy mode. Thus, H_2 was supported: We found a greater consideration of the unique features in the unconditional brand-choice mode.

Our theory posits that the effect of response mode on choice deferral is mediated by the degree of attribute-based processing. As we mentioned previously, we found that response mode significantly affected PATTERN, which satisfies the first criterion for mediation. Next, we found that PATTERN had a significant effect on choice deferral ($\chi^2[1] = 4.9, p < .05$), which satisfies the second criterion for mediation. Finally, the third criterion of mediation also receives support; the effect of response mode on choice deferral is weaker when we included PATTERN as a variable ($\chi^2[1] = 5.0, p < .05$ versus $\chi^2[1] = 9.9, p < .01$, as we mentioned previously). Thus, in support of H_3 , the mediation analysis shows that PATTERN at least partially mediates the effect of response mode on choice deferral.

Discussion

Prior research on choice deferral uses an unconditional brand-choice response mode, presenting the no-choice option as just another response option, such that the initial focus of the respondent is on the selection decision. However, the two studies we have reported contrast the degree of deferral in a response mode in which the initial focus is on the buy/no-buy decision. The studies show that decision processes rely to a greater degree on attribute-based processing in the unconditional brand-choice mode than in the buy/no-buy mode. Although these studies compared the unconditional brand-choice mode with a mode in which the

initial focus is on the buy/no-buy decision, the latter response mode simultaneously manipulated two aspects of the decision situation: (1) making the buy/no-buy decision before the selection decision and (2) increasing the salience of the buy/no-buy decision.

Although our proposed underlying mechanism attributes the effect on choice deferral in the buy/no-buy mode to a reduction in attribute comparisons, it is also possible that the mere attention on the buy/no-buy decision itself increases the effort devoted to the deferral decision. This is especially true because previous research presents the no-choice option as another response option in which subjects are less likely to pay attention to the buy/no-buy decision. Thus, the buy/no-buy response mode also may alter the amount of deferral due to increased attention. The next study contrasts the effect as simply due to the greater salience of deferral to a shift in the comparative processes across the two response modes. Specifically, we examine the effect on deferral in a modified buy/no-buy mode, in which participants make the buy/no-buy decision after a forced selection (see Figure 1).³ We then compare the new response mode with the previous two response modes: unconditional brand-choice and buy/no-buy. According to our theoretical account, because the modified buy/no-buy mode also focuses initial attention on the selection decision that activates comparative processes, it will result in deferral levels that are similar to those in the unconditional brand-choice mode. In contrast, an account based on increased attention to the buy/no-buy decision would suggest a similar pattern of deferral in this response mode as the one we observed in the buy/no-buy mode. To test our account against this alternative account, we focus on binary choices in which the brands share bad features. Our account predicts that in this situation, there is greater deferral in the buy/no-buy response mode than in either the unconditional brand-choice mode or the modified buy/no-buy mode, because both of these modes rely more on attribute-based processing and thus give less weight to the common features.

H_4 : In a choice set that consists of alternatives that share bad aspects, consumers in a buy/no-buy response mode are more likely to defer than are consumers in either an unconditional brand-choice mode or a modified buy/no-buy mode.

STUDY 2: CHOICE DEFERRAL IN UNCONDITIONAL BRAND-CHOICE, BUY/NO-BUY, AND MODIFIED BUY/NO-BUY MODES

Method

Participants in Study 2 were 238 undergraduate marketing students who were fulfilling a course requirement. In all cases, participants chose between two options, each of which offered three unique good features and three shared bad features. Participants made choices in three different product categories, and each category appeared on a different page of the experiment: apartments, restaurants, and

³Note that we refer to this as a modified buy/no-buy mode because in the initial stage of the decision, the buy/no-buy option is not available. However, in this mode, the deferral option becomes available in the second stage of the decision (in which the buy/no-buy decision is made).

vacations.⁴ There were three between-subjects conditions (buy/no-buy, unconditional brand-choice, and modified buy/no-buy response modes). We manipulated the buy/no-buy and unconditional brand-choice modes as in Study 1. Participants in the modified buy/no-buy mode were initially forced to choose between two items. After they made their choices in each of the three product categories, they were informed at the end of the survey: "Next, we would like you to imagine that in addition to the option of staying with the item that you previously chose on each page of the survey, you have the option of not keeping this item and going to another store/location. Please consider this option carefully. After careful consideration, if you decide to stay with the item that you selected previously, please write down 'keep choice' next to the category name. Or, if you prefer to go to another store, please write down 'another store.'"

Results

Table 2 shows that averaged across the three tested categories, 53% of participants chose the deferral option in the buy/no-buy mode, only 37% chose the deferral option in the unconditional brand-choice mode, and 32% chose the deferral option in the modified buy/no-buy mode. The results are consistent with H₄. We first tested H₄ by comparing the choice of the deferral option across the buy/no-buy and unconditional brand-choice modes, and we found the difference to be significant ($\chi^2[1] = 12.6, p < .01$). We then tested H₄ by comparing the choice of the deferral option across the buy/no-buy and modified buy/no-buy modes, and we also found this difference to be significant ($\chi^2[1] = 17.3, p < .01$). Finally, the difference between choice of the deferral option across the modified buy/no-buy mode and unconditional brand-choice modes was not significant, as we predicted ($p =$ not significant [n.s.]). Thus, Study 2 provides further evidence that the dampening of the attribute-based comparison process in the buy/no-buy response mode leads to these results.

Discussion

Thus far, the studies show that response mode can influence the degree of purchase deferral. We next show that response modes interact with two other influencers of purchase incidence. First, recent research suggests that the decision whether to purchase is influenced by evaluations made relative to reference points for the category (Bell and

Bucklin 1999). For example, even if one of the brands is better, consumers may opt not to buy if they evaluate the option as below some reference level for that category. The general influence of reference points on forced choice is well established (Kalyanaram and Winer 1995) and can be based on previous experience or on externally available information that provides a natural frame of comparison (Bettman and Park 1980). As we discuss next, the differences in evaluation strategies across the unconditional brand-choice and buy/no-buy modes suggest a differential salience and influence of any category reference information on deferral.

We propose that the buy/no-buy response mode facilitates the use of category reference information. The greater alternative-based evaluation of the options in this response mode makes it easier to compare each option with a category reference. In contrast, consumers in the unconditional brand-choice mode focus initially on differences among the options provided. The category reference information is less relevant to this selection decision. Furthermore, the same information (i.e., differences among the options) is likely to be weighted more in the subsequent decision. Indirect support for this prediction also comes from the work of Hsee and Leclerc (1998), who find that when consumers evaluate two options jointly, they rely less on any reference information that they would otherwise use in evaluating options separately. A key difference between the separate evaluation mode in the work of Hsee and Leclerc and the buy/no-buy mode described herein is that the separate evaluation task did not allow for comparisons in their study. In our studies, it is possible for the respondents to make attribute-based comparisons in both response modes, but as we showed previously, the comparisons are less likely in the buy/no-buy response mode. This analysis suggests that if the options provided are inferior to a category reference, deferral is greater in the buy/no-buy mode than in the unconditional brand-choice mode, as a result of the greater attention to the unfavorable comparison between the available options and the category reference. Accordingly, we hypothesize the following:

- H₅: When the category reference is better than the available alternatives, respondents in a buy/no-buy response mode are more likely to defer than are respondents in an unconditional brand-choice mode.

A second influence on purchase deferral is the degree of conflict or the difficulty of choosing the best option from a set (Dhar 1997; Tversky and Shafir 1992). Although conflict or choice difficulty is treated often as a property of the choice set (i.e., the number of attractive options), it is also affected by the decision rule that is used to make a choice. For example, Dhar (1996) shows that the degree of difficulty associated with choice is higher when participants compare the options with each other using an attribute-based compensatory rule, such as the additive difference rule, than when they evaluate each alternative separately. Because the unconditional brand-choice mode prompts attribute-based comparisons, this suggests that the ease or difficulty of comparisons affects deferral to a greater extent than does the category reference. In contrast, respondents' use of alternative-based strategies in the buy/no-buy mode is less likely to be influenced by comparison difficulty and more by the attractiveness of the category reference.

⁴In between each category, participants made unrelated choices, such that they would be unlikely to anticipate that each tested category would offer the deferral option after forced choice (in the modified buy/no-buy mode). In addition, we counterbalanced the order in which the categories were shown across subjects. We found no order effects.

Table 2
RESULTS FROM STUDY 2: SHARE OF RESPONDENTS
CHOOSING THE DEFERRAL OPTION

Product Category	Buy/No-Buy Mode (%)	Unconditional Brand-Choice Mode (%)	Modified Buy/No-Buy Mode (%)
Restaurants	45	30	29
Vacations	43	27	19
Apartments	70	53	47
Total	53	37	32

In summary, the role of category reference information and decision conflict suggests an interaction in their effect on deferral in the two response modes. Because deferral in the unconditional brand-choice mode is sensitive to the conflict or selection difficulty, the difference in deferral in the two response modes that is due to a superior category reference is moderated by the degree of conflict. Specifically, the difference in choice deferral between the buy/no-buy and unconditional brand-choice modes is greater when the selection decision is easy. In this case, an easier choice results in less deferral than a more difficult choice in the unconditional brand-choice mode, which then results in a greater difference than in the buy/no-buy mode.

H₆: The difficulty of selection moderates the effect of a superior reference on choice deferral. Specifically, there is a greater difference in choice deferral between buy/no-buy and unconditional brand-choice response modes when selection is easy.

STUDY 3: THE EFFECT OF CATEGORY REFERENCE AND CONFLICT ON DEFERRAL IN THE TWO RESPONSE MODES

Study 3A

Method. Participants in Study 3A were 197 undergraduate marketing students who were fulfilling a course requirement. We manipulated two factors in a 2 (mode: unconditional brand-choice or buy/no-buy response mode) × 2 (selection difficulty: high or low) between-subjects design. The task involved a decision among three options, which were each described on two attributes and a price. For example, in the calculator batteries category, participants chose between Batteries A, B, and C, each of which was described in terms of expected life, probability of corrosion, and price (see Figure 2). Participants made choices in three categories (calculator batteries, barbecue grills, and cordless telephones). We counterbalanced the order of the categories and the order in which options were shown, and we

found no significant differences. We provided a superior category reference for batteries by stating that “A friend of yours recently bought calculator batteries. The calculator batteries [he or she] bought have an expected life of 55 hours and a probability of corrosion of 0%.” These attributes were superior to the three batteries from which the participant could choose.

The response mode manipulation was similar to that in Study 1. For example, for batteries, the unconditional brand-choice mode presented the response options as “Buy Batteries A,” “Buy Batteries B,” “Buy Batteries C,” or “Choose none and visit another store.” For the buy/no-buy mode, the response options were “Buy batteries from this store,” or “Choose none and visit another store.” We manipulated choice conflict by providing a choice set of either three options that were relatively equal in attractiveness (i.e., high selection difficulty) or options in which one of the alternatives asymmetrically dominated the other option in the set (i.e., low selection difficulty). This manipulation is based on prior research that shows that providing an asymmetrically dominating option makes the choice of the dominated option easier to justify, and the decision itself is viewed as less difficult (e.g., Dhar 1996). For example, in the category of batteries, in the high-conflict condition, the choice was among batteries offering 30 hours of expected life and a 1% possibility of corrosion, 40 hours of expected life and a 2% possibility of corrosion, and 50 hours of expected life and a 3% possibility of corrosion. Each option was priced at \$3.99. In the low-selection-difficulty condition, one option was constructed to be asymmetrically superior to another option. In batteries, the choice was among 30 hours of expected life and a 1% possibility of corrosion, 25 hours of expected life and a 2% possibility of corrosion, and 50 hours of expected life and a 3% possibility of corrosion.

We pretested the degree of selection difficulty associated with the choice sets using a scale from the work of Chatterjee and Heath (1996). In particular, 80 students participated in a between-subjects experiment in which they evaluated choice sets in either a high- or a low-difficulty condition. After examining the choice set in each category, participants were asked three questions: “How difficult is this decision? How likely are you to regret this decision? and How simple is this decision?” They answered each question, for each category, using a 21-point scale that ranged from -10 (e.g., “not at all difficult”) to 10 (e.g., “very difficult”). Given the high degree of correlation among the three measures of difficulty ($\alpha = .82$), we used a composite score to analyze the effect of the manipulation. As we expected, we found that participants rated the asymmetrically dominating choice sets as less difficult than the choice sets with relatively equally attractive alternatives ($M = 2.2$ for equally attractive sets, and $M = -.7$ for dominating option sets; averaged across categories, $p < .01$ for each category).

Results. We first examine the results that relate to H₅. Averaged across the three choice problems, 39% of participants ($[44\% + 34\%]/2$) selected the deferral option in the unconditional brand-choice mode, compared with 62% ($[60\% + 65\%]/2$) of participants in the buy/no-buy mode (Table 3). Thus, consistent with H₅, the percentage of participants who select the deferral option was greater in the buy/no-buy mode than in the unconditional brand-choice mode. In addition, consistent with H₆, the difference in choice deferral between unconditional brand-choice and

Figure 2

EXAMPLE PRODUCT CATEGORY FROM STUDY 3A: CALCULATOR BATTERIES

Imagine that you need to buy calculator batteries and you find the following options. For comparison purposes, we also show you what a friend has purchased recently. You can choose to buy none of them (and shop at another store) or one of the specific options below. If you choose not to buy any of them, they might no longer be available.

	<i>Expected Life</i>	<i>Probability of Corrosion</i>	<i>Price</i>
Batteries A	30 hours	1%	\$3.99
Batteries B	40 hours	2%	\$3.99
Batteries C	50 hours	3%	\$3.99

A friend of yours recently bought calculator batteries. The calculator batteries he or she bought have an expected life of 55 hours and a probability of corrosion of 0%.

In this situation, I would (please circle your answer below)

- (a) Choose none and visit another store
- (b) Buy Batteries A
- (c) Buy Batteries B
- (d) Buy Batteries C

Table 3
RESULTS FROM STUDY 3A: SHARE OF RESPONDENTS CHOOSING THE DEFERRAL OPTION

Product Category	Three Equally Attractive Options (High Conflict)		Asymmetrically Dominating Choice Set (Low Conflict)	
	Unconditional Brand-Choice Mode (%)	Buy/No-Buy Mode (%)	Unconditional Brand-Choice Mode (%)	Buy/No-Buy Mode (%)
Calculator batteries	48	60	40	71
Barbecue grills	34	49	24	45
Cordless telephones	49	71	39	79
Total	44	60	34	65

buy/no-buy modes was 16% (60% – 44%) under high difficulty, but was 31% (65% – 34%) under low difficulty.

We tested H_5 and H_6 using a logistic regression model. The dependent variable was whether the deferral option was chosen and was modeled as a function of the following independent dummy variables: (1) whether decisions were in the unconditional brand-choice or buy/no-buy mode, which tests H_5 ; (2) whether selection difficulty was high or low; (3) the interaction between the two main effects, which tests H_6 ; and (4) an interaction between the unconditional brand-choice/buy–no-buy manipulations and the three product categories. Consistent with H_5 , the main effect of Variable 1 was statistically significant ($\chi^2[1] = 13.6, p < .01$). Consistent with H_6 , the interaction was also significant ($\chi^2[1] = 6.3, p < .05$). We also found that there were no significant differences in the effects across the categories ($\chi^2[1] = 2.0, n.s.$). Finally, the main effect of difficulty was not significant ($\chi^2[1] = .9, n.s.$).

In this study, we found that when the options are inferior to the category reference, choice deferral was greater in the buy/no-buy mode than in the unconditional brand-choice mode. To gain further support for the difference in comparative processes as the basis of our predictions, we can make corresponding predictions when the available options are better than a category reference. In particular, our framework suggests that when the options are better than the category reference, choice deferral is expected to be lower in the buy/no-buy mode than in the unconditional brand-choice mode. A separate study, which focuses only on the high-conflict choice sets, tested the following prediction; we subsequently describe it briefly.

H_7 : When the category reference is inferior to the alternatives provided, respondents in a buy/no-buy mode are less likely to defer than are those in an unconditional brand-choice mode.

Study 3B

Method. Participants in Study 3B were 145 undergraduate marketing students who were fulfilling a course requirement. There were two between-subjects conditions; participants made choices either in an unconditional brand-choice mode or in a buy/no-buy mode. Participants made choices in three categories (laser printers, lightbulbs, and personal data assistants). We counterbalanced the order of the categories and the order in which options were shown, and we found no significant differences. In addition, unlike Study 3A, in this study, we provided respondents with an inferior category reference. Finally, in Study 3B, we focused on the high-conflict condition of Study 3A.

Results. As is shown in Table 4, the deferral option was selected by 18% of participants in the unconditional brand-choice mode, compared with 7% of participants in the buy/no-buy mode. Thus, consistent with H_7 , the deferral option was more likely to be chosen in the unconditional brand-choice mode than in the buy/no-buy mode. We tested H_7 with the main effect of the same type of model used in Study 3A. In support of H_7 , we found that the main effect of the response mode manipulation was significant ($\chi^2[1] = 4.1, p < .05$). We also found that there were no significant differences in the effects across the categories ($\chi^2[1] = .9, n.s.$).

Discussion of Study 3. Study 3 shows how category reference information and decision conflict influence choice deferral in the two response modes. Specifically, the buy/no-buy mode increased the likelihood of participants comparing each option with information on a category reference. As a result, when participants were provided with a reference option for the product category, the information had a significantly greater influence on deferral in the buy/no-buy mode than in the unconditional brand-choice mode. In contrast, choice deferral was more sensitive to conflict or selection difficulty in the unconditional brand-choice mode.

GENERAL DISCUSSION

Consumer purchases are often the outcome of two decisions: a buy/no-buy decision and a selection decision. Previous research on choice deferral has always provided the no-buy decision as just another response option, such that the initial focus of the consumer is on attribute differences among the options. In contrast, this research examines the effect of unfolding the two decisions, such that the buy/no-buy decision precedes the selection decision. Our main proposition is that the two response modes differ in their effect on deferral. The results of Studies 1–3 indicate that the order of the buy/no-buy decision can change the degree of comparative processing, the relative weight assigned to the shared features of the options, and the influence of a category referent and thereby can affect deferral. In this sec-

Table 4
RESULTS FROM STUDY 3B: SHARE OF RESPONDENTS
CHOOSING THE DEFERRAL OPTION

Product Category	Unconditional Brand-Choice Response Mode (%)	Buy/No-Buy Response Mode (%)
Laser printers	14	6
Lightbulbs	16	5
Personal data assistants	24	11
Total	18	7

tion, we review the findings and discuss their theoretical and practical implications.

Summary of Findings and Theoretical Implications

Prior research has shown that response modes can have an important influence on consumer forced choice (e.g., Hsee et al. 1999; Nowlis and Simonson 1997). In this article, we focus on how two major response modes, one in which the buy/no-buy decision is made first and the other in which the buy/no-buy decision is just another response option, can affect choice deferral. If consumers take into account all the relevant features of the options under consideration, there should be no reason to expect that different response modes lead to differences in deferral. However, we show that consumers are more likely to evaluate alternatives against each other in an unconditional brand-choice response mode and therefore are less likely to focus on certain features. We also show that the buy/no-buy response mode leads to a greater use of alternative-based evaluations than does the unconditional brand-choice mode. Furthermore, the differences in evaluation strategies mediate the differences in deferral in the two response modes.

We explored the boundaries of the phenomena by showing that the differences in deferral between the two response modes arise not simply because of the increased salience of the buy/no-buy decision compared with the unconditional brand-choice mode, but because of the difference in comparative processes when consumers first make the buy/no-buy decision. We show that in the modified buy/no-buy mode, when there is an increased salience of the deferral option but it is considered after a selection is made, the amount of deferral is similar to the unconditional brand-choice mode. Thus, this study provides a further test that the dampening of the attribute-based comparison process in the buy/no-buy response mode is responsible for the results.

Recent research has suggested that purchase incidence should also be sensitive to reference information (Bell and Bucklin 1999). We find that the effect of category reference information also depends on the response modes. Because the buy/no-buy mode prompts more alternative-based evaluation, the attractiveness of a category reference moderated deferral. In particular, we found greater deferral in a buy/no-buy mode than in an unconditional brand-choice mode when the category reference was better than the alternatives. We also found that deferral was lower in the buy/no-buy mode than in the unconditional brand-choice mode when the category reference was worse than the provided alternatives.

A general implication of our findings is that the attribute-wise comparisons in a choice set are more salient unless consumers first consider the buy/no-buy decision. This result has more general implications for the consequence of comparisons on choice. For example, Brenner, Rottenstreich, and Sood (1999) find that alternatives are preferred less when they are placed into comparative groups because comparisons between options make each option appear less attractive. In contrast, Glazer, Kahn, and Moore (1991) find that an option is at an advantage if it is offered as part of a binary set rather than as a single option. The seemingly conflicting results can be reconciled if we consider that the two articles differed in the degree to which the initial task corresponds to an unconditional brand-choice or a buy/no-buy

response mode. For example, Brenner, Rottenstreich, and Sood presented the items in a task that focused on selection between the items in the group. Our results suggest that when consumers first focus on the selection decision, the negative consequences of relative comparisons are more likely to be salient. In contrast, Glazer, Kahn, and Moore (1991) asked subjects first to choose a store in which they would shop. This is similar to our buy/no-buy mode, which makes relative comparisons less likely and increases the preference for the store with more brands.

This research also contributes more generally to the study of hierarchical processing on choice outcomes. Although a major focus of choice research has been on the simultaneous evaluation of options, decisions that involve hierarchical processing of information have also received attention (Bettman and Sujan 1987). Several studies show that constraints in the order of processing can lead to systematically different choice outcomes in comparison with what would be expected in the absence of constraints (e.g., Glazer, Kahn, and Moore 1991). In contrast to previous work that examines the effect of partitioning a larger choice set into subgroups, we examine the effect of shifting the initial focus to one of the two decisions involved in choice incidence (the buy/no-buy and the selection decisions) and compare its outcome with what occurs in the absence of any constraints. Our research adds to this literature by showing that choice outcomes can also be affected by keeping the alternatives constant but by changing the order of the selection and buy/no-buy decisions.

Although the main focus of this research was understanding how the two response modes affect deferral, we did not address two related questions. The first pertains to the conditions under which consumers spontaneously focus on the buy/no-buy mode. The answer to this question might be sensitive to consumer goals with regard to the purchase decision or to marketer-initiated strategies. For example, if the no-buy alternative is framed as a decision to purchase in a different category, consumers might naturally focus first on the buy/no-buy decision. Further research could examine which response mode consumers naturally adopt under different consumer motives and marketer influences. In particular, if consumers are shopping for hedonic items, they might be more likely to consider the buy/no-buy decision; for utilitarian items, they might be more likely to consider the selection decision, because it would be viewed as a necessity (e.g., Shiv and Fedorikhin 1999). A second question pertains to our assumption that the buy/no-buy response mode activates evaluation by alternatives. Although this was true in our studies that involved few alternatives, the actual processing strategy in the different response modes is likely to be contingent on the demands of the task and the choice context as well as on the consumer need for accuracy (Payne, Bettman, and Johnson 1988).

A possible limitation of our studies is that they all involved hypothetical choices. A potential concern with demonstrating deferral effects in the laboratory is that it may not reflect consumer responses when faced with consequential choices in the marketplace. However, the focus of our research was on differences across response modes rather than the absolute level of deferral. Although we believe that, in general, in hypothetical situations participants indicate how they would act, we conducted an additional study in which we tested one of the basic proposi-

tions using real choices. In this study, we replicated the basic result, providing further support that the results based on hypothetical choices are also observed with actual choices involving real consequences.

Practical Implications

A major concern for marketing managers is how priming the order of the buy/no-buy and selection decisions can affect purchase likelihood. In an online shopping environment, marketers have greater control over the sequence of processes by which consumers make decisions. Online retailers that want to increase choice incidence among items with bad aspects that are shared by many category members (i.e., high-calorie, high-fat snacks) should encourage consumers to make direct comparisons rather than evaluate each item separately. This is particularly relevant for stores that might care more about category incidence than about a specific brand purchase. Furthermore, many grocery categories have a dominant manufacturer (e.g., Frito-Lay, Kellogg) that would benefit from expanded sales in the entire category.

This research also complements recent work that finds that the buy/no-buy decision is affected by a category reference (Bell and Bucklin 1999). Our results show that reference effects may be different for response modes and when the reference is better or worse than the available options. For example, attractiveness and choice incidence can be increased for new products that are below a reference performance level by presenting the options in an unconditional brand-choice mode instead of in a buy/no-buy mode.

A key challenge for marketers is that there are many online visitors but few buyers. In addition, many consumers who put items in online shopping carts do not end up buying them. There are several reasons shopping carts might be abandoned. The current studies suggest that shifting the response mode can influence purchase incidence. Specifically, informing consumers that they have the option to defer or cancel purchase at the time of checkout might increase the initial focus on selection. This greater focus on selection makes consumers less sensitive to information that might be different across Web sites, thereby potentially increasing incidence rates. In general, as marketers continue to learn how their customers react to different stages in the purchase process, they will be better able to influence whether items are purchased.

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