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The Journal of Consumer Research, Volume 24, Issue 1 (Jun., 1997), 105-117.

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The Journal of Consumer Research
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Mere-Possession Effects without Possession in Consumer Choice

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In this article we examine whether and why preference for a good produced by its mere and arbitrary possession (i.e., a mere-possession effect) occurs even in the absence of actual possession. In two experiments, we demonstrate that merely possessing a coupon for a product, as opposed to the actual product, can increase consumers' preference for that option over its competitors' in real choices from meaningfully comparable choice sets. In addition, a characterization of the cognitive processes underlying this phenomenon, and its variation with individual perceptions of task meaningfulness, provides support for a loss-aversion account of consumers' possession-induced preferences for goods they do not actually possess.

The objects we possess exert an inordinate influence on our subsequent consumption decisions. In categories ranging from frequently purchased grocery products to expensive durables, we often adhere to previously owned brands in subsequent choices even when these brands are no better than their competitors on relevant attributes. Many factors contribute to such possession effects. Over time, consumers may adapt to the owned good, develop a sentimental attachment for it, or, more generally, incorporate it into their extended selves (Belk 1988). Possession effects can also stem from psychological commitment to prior decisions arising from undue attention to sunk costs implicit in these decisions, regret avoidance, or the desire to make consistent decisions over time (see Samuelson and Zeckhauser [1988] for a review). Moreover, it may be rational to adhere to the owned good if the choice set remains unchanged over multiple choice occasions or if there are substantial decision costs (e.g., search, cognitive, and/or transaction costs) associated with the evaluation and consumption of new options.

In certain cases, however, possession effects persist even when these numerous factors are controlled for. In fact, evidence suggests that possession-induced preference is often unrelated to a consumer's behavior both

prior and subsequent to the act of possession (Beggan 1992; Kahneman, Knetsch, and Thaler 1990; Thaler 1980). The *mere-possession effect* refers to those instances of possession-induced preference that occur instantaneously and can be induced through random assignment of the good or happenstance.

Heider (1958) was one of the earliest to suggest that merely possessing an object produces greater liking for it. Since then, research has documented three different expressions of the mere-possession effect. First, consumers' choices from a set of options that includes one product that they already own or consume reveal a status quo bias: consumers are inclined to retain their status quo option or prefer smaller deviations from the status quo to larger ones (Ritov and Baron 1992; Samuelson and Zeckhauser 1988). Status quo biases have been demonstrated in a wide variety of hypothetical and real choice sets in domains ranging from health care plans to automobile insurance (Johnson et al. 1993a; Samuelson and Zeckhauser 1988). Second, in both experimental markets for consumer goods (Kahneman et al. 1990) and the valuation of public goods (Brookshire and Coursey 1987), the amount of money people demand to sell an owned good is often 2–10 times greater than the amount buyers are willing to pay to acquire it. Such buyer-seller gaps violate the standard economic theory assumption that buying and selling prices should, under most circumstances, be approximately equal. Of particular relevance is the *endowment effect* (Thaler 1980), which refers to buyer-seller gaps that are induced instantaneously through random assignment of ownership to a subset of the population. Third, mere possession appears to lead to higher attractiveness ratings of certain common consumer goods. In a series of experiments, Beggan (1992) demonstrated that people who, at random, were given one of nine consumer

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goods prior to their evaluations rated that good more favorably, in terms of attractiveness, value, and quality of design, than those who were not given any good prior to the evaluation task.

In sum, prior research indicates that merely possessing a good can lead to an instantaneous increase in preference for it. This article is motivated by the question, Does such an instantaneous and arbitrary possession-induced preference for real consumer goods generalize to contexts in which the consumer does not actually possess the product? Evidence and an understanding of mere-possession effects in the absence of possession (i.e., possession-without-possession effects) can have significant implications in several domains of consumption behavior. For instance, the success of most promotional tactics are believed to stem from the rational advantages that accrue to the consumer as a result of such activities, such as greater value (in terms of reduced price, higher number of products for the same price, or product-related advantages associated with frequent purchase), and/or awareness of a product and its key attributes. However, if the mere-possession effect can occur in the absence of possession, then promotional tactics, such as coupons, gift certificates, or free trial offers, may actually create such a possession-induced preference for the promoted product, calling into question the pervasive perception that promotions, contrary to advertising, weaken brand preference by creating only temporary increases in a product's value (Kotler and Armstrong 1996). Notably, as marketers increasingly promote products through the Internet, we can expect promotional tactics that confer possession of a good without actually providing it to the consumer to become more widespread in the near future.

More generally, if the mere-possession effect does not require physical possession, then its preference-enhancing effect would generalize to the numerous consumption contexts where consumers have or experience ownership of a good without actually physically possessing it. For instance, the increasing prevalence of direct marketing, through both print and electronic media, has contributed to an often large time gap between ownership of a product and its physical possession or consumption. Understanding whether possession-induced preference can occur in the absence of physical possession can provide insights into consumers' preferences for products they own but do not yet possess. Such insights are particularly relevant in situations where consumers have the opportunity or desire to actually engage in further evaluations of the choice set after gaining ownership of one of the options in the set.

In this article, we investigate possession-without-possession effects in a promotional context. In particular, we examine whether promotional devices, such as rebate coupons or gift certificates, can produce a mere-possession effect for the promoted product that exceeds the utility stemming from its objective attributes (including the reduced price). Prior research has examined such possession effects among either hypothetical options (Sam-

uelson and Zeckhauser 1988) or real goods that are not readily comparable on relevant attributes (Beggan 1992). However, in a promotional setting, particularly for new products, unfamiliarity with the promoted brand, as well as one or more of the remaining brands in the category, may induce consumers to compare the couponed brand to its competitors on relevant attributes prior to choice. Moreover, if coupons produce a mere-possession effect for the promoted option, then we are most likely to replicate this effect in efficient choice sets, where no option is unequivocally superior (i.e., dominating) on all relevant attributes. Therefore, we monitor people's real choices from two- and three-option efficient choice sets after giving them a gift certificate for one of the choice options. We expect that giving consumers such a coupon to any of the choice options in these efficient sets prior to choice should result in an instantaneous increase in preference for that option.

In addition, we try to understand what drives these possession-without-possession effects in such choice contexts by tracking consumers' choice processes as they search for and evaluate attribute-level information describing the choice options. It is unlikely that this phenomenon is uniquely determined; possession effects are consistent with multiple mechanisms ranging from simple affective ones to complex motivational ones such as self-enhancement through one's possessions (see Beggan [1992] for a review). Of these multiple accounts some, such as self-enhancement, can be expected to play only a minor role in a couponing context where consumers evaluate choice options from the same category based on comparable attribute information. However, one explanation that is particularly relevant in such contexts is loss aversion (Tversky and Kahneman 1991). Specifically, even when consumers own only a coupon for a choice option, they may prefer this option if they are more averse to incurring the losses or disadvantages associated with switching from it to one of its competitors than they are to seeking any equivalent gains or advantages that the competitor might offer. In this article, we undertake a detailed characterization of the choice process with the goal of assessing the adequacy of loss aversion as an explanation for such possession-without-possession effects.

Finally, we explore how differences among consumers with regard to the meaningfulness of the decision task affect the degree to which their preference for a couponed brand is enhanced by mere possession. Task meaningfulness, which often stems from consumer-specific factors such as expertise in and/or overall liking for the product category, is frequently associated with well-articulated decision goals, clear and often strong preferences for different combinations of attribute values, and a more careful consideration of choice set information. Examining how individual differences in task meaningfulness moderate a coupon-induced mere-possession effect may shed light on whether such an effect represents a decision bias.

TABLE 1
STUDIES 1 AND 2: PREDICTIONS, MEASURES, AND RESULTS

Predictions	Measures	Results	
		Study 1	Study 2
Mere-possession effect of coupon	Choice _{COUPON-CONTROL}	.11*	.28*
	Points _{COUPON-CONTROL}	2.33*	7.25*
	Price _{COUPON-CONTROL}	.37*	3.88*
Loss-aversion predictions:			
Choice process:			
More focus on couponed option (advantages)	Looking time _{COUPON-CONTROL}	.76 (0.14)	3.55* (2.10*)
	Dimensional transitions _{COUPON-CONTROL}	.82* (0.64*)	.88* (0.74*)
More focus on disadvantages of noncouponed options	Looking time _{COUPON-CONTROL}	1.18*	3.01*
	Dimensional transitions _{COUPON-CONTROL}	.64*	.74*
More dimensional processing	Search Index _{COUPON-CONTROL}	-.02	-.13
Task effort:			
More total decision time	Total looking time _{COUPON-CONTROL}	5.03*	10.60*
Higher perceived difficulty of task	Task difficulty rating _{COUPON-CONTROL}	-.20	.54*
Moderating effect of task meaningfulness:			
Positive moderator of the mere-possession effect	"High" meaningfulness:		
	Choice _{COUPON-CONTROL}	.16*	.51*
	Points _{COUPON-CONTROL}	3.90*	16.60*
	Price _{COUPON-CONTROL}	1.50*	8.60*
	"Low" meaningfulness:		
	Choice _{COUPON-CONTROL}	.09	.03
	Points _{COUPON-CONTROL}	.08	2.50
	Price _{COUPON-CONTROL}	-.08	-1.10

NOTE.—Values in parentheses represent advantages.
* $p < .05$.

THE CHOICE PROCESS

To obtain insights into the choice process we rely on people's patterns of search for choice set information that is displayed in a brand-by-attribute matrix (see Carroll and Johnson [1990], chap. 5, for a review). In particular, we characterize the choice process in terms of the extent and pattern of attention and comparison among the different choice options. How consumers attend to, and compare, information about the couponed brand and its competitors is likely to depend on the mechanisms underlying possession-without-possession effects. Next, we focus on loss aversion and delineate its implications for the choice process. These predictions, their measures, and results of their tests from two experiments are summarized in Table 1.

Consumers often evaluate the attribute levels of choice options as advantages or gains and disadvantages or losses relative to reference levels of these attributes. Moreover, consumers are loss averse in making such relative judgments of attribute-level value: they weigh the losses more heavily than equivalent gains (Tversky and Kahneman 1991). Notably, consumers can be differentially loss averse on the different attributes defining the choice options (Hardie, Johnson, and Fader 1993; Tversky and Kahneman 1991).

If possessing a coupon for one of the choice options leads consumers to designate that option as a reference in a subsequent choice task, then the remaining options,

at least in efficient sets, will be coded as advantages on certain attributes and disadvantages on others. And if consumers are loss averse, then the advantages will not adequately compensate for equivalent disadvantages, leading them to prefer the couponed option, which, by definition, has no advantages or disadvantages. Most demonstrations of the status quo bias and the endowment effect (Kahneman et al. 1990; Ritov and Baron 1992; Samuelson and Zeckhauser 1988) are consistent with a loss-aversion explanation (Loewenstein and Kahneman 1991).

How might consumers process information when making choices in a loss-averse manner? Loss aversion among multiattribute choice options is typically conceptualized in terms of attribute-specific loss-averse utility functions, with the reference option defining the zero point (e.g., Hardie et al. 1993; Tversky and Kahneman 1991). Although many cognitive processes may underlie the assessment of these attribute-specific utilities, research on feature-matching models of similarity and preference judgments (Houston, Sherman, and Baker 1991; Tversky 1977) suggests that consumers use the reference option as a template against which they review the features of the remaining choice set options. And since every option is compared to the reference, it is not surprising that consumers tend to pay more attention (e.g., in terms of the total thoughts in verbal protocols) to the reference option than to nonreference options (Dhar and Simonson 1992).

Thus, if couponing of an option leads to its designation as the reference, it is plausible that loss-averse consumers will compare all the choice options to the couponed option on each of the relevant attributes. This has two direct implications for information search. First, people will attend more to an option's attribute information when it is couponed prior to choice. In particular, greater attention may be devoted to the advantages of the couponed option because loss aversion is likely to make people focus on what they have to lose (i.e., the relative advantages of the reference option) if they switch to a nonreference option. Second, an attribute-specific comparison of all the choice options to the reference option in a brand X attribute matrix should result in more dimensional (i.e., within-attribute) comparisons involving an option when it is couponed. In turn, this should lead to a more general shift toward more dimensional processing.

A preoccupation with the forfeiture of the reference option's relative advantages also entails greater attention to the disadvantages (losses) of the noncouponed options. Moreover, some research suggests that negative information, in general, produces more cognitive activity than positive information (see Peeters and Czapinski [1990] for a review). For instance, not only are negative stimuli perceived as more complex than positive ones of equivalent informational value but they also receive greater attention and preferential weighting in people's evaluations of others' likability (Fiske 1980). Now, a disadvantage does not necessarily convey negative information per se, but it may be viewed as such because it results in adverse outcomes relative to the reference. In sum, loss aversion suggests that consumers will be more likely to attend to information when it is perceived as a disadvantage relative to the couponed option.

Finally, negative information, by itself, appears to evoke a more effortful, controlled mode of cognitive processing (Dunegan 1993). In addition, a reference-dependent choice process may involve more computational activity than the more holistic, compensatory choice processes consumers tend to use in relatively small, efficient choice sets (Lussier and Olshavsky 1979). In general, a reference-dependent choice process implies calculating differences between the reference and nonreference options on relevant attributes and trading off the resulting advantages and disadvantages for each nonreference option. Therefore, in addition to the elementary calculations that typically constitute a compensatory decision strategy (see Bettman, Johnson, and Payne [1990] for an overview), such as summing an option's value on relevant attributes and perhaps weighting these values by respective attribute importances, a reference-dependent choice process includes others, such as comparing different options on relevant attributes and calculating the size of the resulting differences. Thus, a loss-averse choice process is likely to result in an increase in cognitive effort. This is also likely to be reflected in consumers' perceptions of greater task difficulty (Hogarth 1975; Wright and Ayton 1988).

MODERATING EFFECT OF TASK MEANINGFULNESS

The final question we focus on is, who is most likely to display possession-without-possession effects? In particular, we examine whether and how the meaningfulness of the choice task to an individual consumer moderates her possession-induced preference for the couponed option. In this section, we explore the implications of loss aversion for the moderating role of task meaningfulness.

The extant mathematical formulation of attribute-specific loss aversion among multiattribute choice options (Hardie et al. 1993; Tversky and Kahneman 1991) helps us understand how task meaningfulness might interact with loss-averse preferences.¹ If, for instance, in a two-option efficient set, X is superior to Y on attribute 1 but inferior on attribute 2 and loss aversion is represented as $\lambda (>1)$, then the difference between the utilities for X and Y when X is couponed can be expressed as $\lambda[u(x_1) - u(y_1)] + [u(x_2) - u(y_2)]$. However, when X is not couponed, this difference is $[u(x_1) - u(y_1)] + [u(x_2) - u(y_2)]$. Within this framework, the difference between consumers' relative preference for X (over Y) when it is couponed and when it is not couponed, $\{(\lambda - 1)[u(x_1) - u(y_1)]\}$, represents the magnitude of the coupon-induced mere-possession effect. Thus, consumers' preference for the couponed option over the noncouponed options depends on two attribute-specific factors: their loss aversion and the perceived differences in attribute-specific utilities between the couponed and the noncouponed options. Consequently, the effect of task meaningfulness depends on whether and how it affects these two determinants of the mere-possession effect.

The extent to which a choice task within a product category is meaningful to consumers depends largely on one or more, typically correlated, individual-specific factors such as their knowledge about and liking for the product category. And while higher levels of these individual-level variables may not necessarily be accompanied by greater loss aversion, λ , on the relevant attributes, they may inflate the perceived difference between the attribute-specific utilities of the couponed and noncouponed options, $u(x_1) - u(y_1)$. For instance, more knowledgeable consumers are able to make finer distinctions between different levels of an attribute (Park and Lessig 1981). Moreover, based on their developed product category-specific knowledge structures (Alba and Hutchinson 1987; Chi, Feltovich, and Glaser 1981), experts are better able than novices to elaborate meaningfully and vividly on these attribute-level differences. Similarly, consumers with greater liking for a product category will be more motivated to better distinguish and more meaningfully evaluate the consequences associated with different levels of a product attribute (Petty, Unnava, and Strathman 1991). Further, if consumers with greater cate-

¹We are grateful to a reviewer for this insight.

gory liking tend to get more out of products in that category, then these people may, in general, have higher utilities for the different attribute levels. In sum, the ability and/or desire to make finer and more meaningful distinctions between different levels of a particular attribute, coupled with the more general tendency to ascribe higher utilities to these levels, may contribute to larger, attribute-specific utility differences between the couponed and noncouponed option for consumers who have greater knowledge of or preference for a product category. From a loss-aversion perspective, then, consumers who find the choice task more meaningful may actually be more likely to display a mere-possession effect for the couponed brand.

Next, we describe two experiments designed to test these outcome, process, and moderation predictions (see Table 1 for summary).

STUDY 1

This study has two goals. First, we want to demonstrate, through the use of a couponing scenario, that products can benefit from a mere-possession effect even when consumers do not actually possess these products. Second, we want to characterize the choice process underlying this phenomenon and explore the moderating role of task meaningfulness with the objective of assessing the adequacy of loss aversion as an explanation for such possession-without-possession effects.

Method

Stimuli Development. The stimuli consisted of four sets of three restaurants described on two attributes: quality of food (food) and service and atmosphere (atmosphere). To ensure that the choice task had real consequences, we used 12 actual local area restaurants and the only compensation subjects received was a \$15 gift certificate to one of the restaurants they chose. However, we minimized asymmetric information effects by picking restaurants that were unfamiliar to our population. The descriptions were created based on the attribute-importance ratings obtained from a pretest, knowledge regarding the actual restaurants, and the need to locate, on aggregate, the three restaurants in each choice set on the efficient frontier of a two-attribute space.

We picked four categories, American, Chinese, Italian, and international, based on 36 pretest subjects' liking for the different restaurant categories and their familiarity or experience with the specific local area restaurants in that category. In each category, we selected three restaurants based on three criteria: (1) that subjects be unfamiliar with the restaurants, (2) that the cost of dining at the restaurants be roughly equivalent, and (3) that the three restaurants approximate an efficient set based on their reputation for food, service, and atmosphere.

Information about the attributes, food and atmosphere, was provided in the form of short verbal excerpts from restaurant reviews. In a second pretest, 43 subjects rated

the importance of the two attributes, as well as several individual descriptions of these attributes. These descriptions reflected, as accurately as possible, the 12 restaurants selected in the first pretest. For each attribute, we selected a set of descriptions whose ratings differed significantly from each other. These food and atmosphere importance and description ratings were combined to create several full profiles.

A third set of 49 pretest subjects then provided preference ratings for these full profiles. In each category, we selected three profiles (see App. A) based on two criteria: (1) that the overall preference ratings of profiles, A (low food, high atmosphere), B (medium food, medium atmosphere), and C (high food, low atmosphere), not be significantly different from each other and (2) that within each attribute, the description ratings for the three options be significantly different from each other (i.e., the food [atmosphere] rating for A would be significantly higher [lower] than that for B, which, in turn, would be significantly higher [lower] than that for C).

Design. The effect of couponing on choice was tested using a 4×4 Latin square design. The two factors were couponing (coupon) and restaurant category (category). The four coupon conditions were (1) restaurant A couponed, (2) restaurant B couponed, (3) restaurant C couponed, and (4) control, where no restaurant was couponed. Subjects chose in all four coupon conditions, each in a different category. Since we did not anticipate a significant interaction between the two factors, we used a randomized incomplete-block design in which this interaction was partially confounded. This allowed a reduction in experimental error within the constraint that each subject could not possess a coupon to more than one brand in a given restaurant category. A balanced design required a set of three different Latin squares and, thus, 12 (4×3) subjects (see Cochran and Cox [1957], plan 6.12, p. 241). We ran three replications of this design.

Procedure. Thirty-six undergraduate subjects participated in the main experiment in individual, one-hour sessions. Upon arrival, we told subjects that over the course of the study, they would receive \$15 gift certificates to several local area restaurants of their choice. However, at the end of the study they would get to pick and take home only one of those certificates through a lottery process.

All subjects made four choices. Prior to three of these choices, they were given a gift certificate to one of the choice options. To minimize any potential demand effects stemming from subjects' inferences regarding the relative desirability of the couponed option, they were asked to pick one of three sealed but unmarked envelopes. While subjects were told that each envelope contained a different gift certificate, all envelopes contained the same coupon. Once subjects opened the envelope, they were told that the gift certificate belonged to them and they wrote their names on it and signed it. We subsequently apprised subjects of the choice task and told them that if they preferred

another restaurant in the choice set to the one for which they had a gift certificate, they could exchange their certificate for the restaurant of their choice.

Subjects obtained choice set information from a brand X attribute matrix (see Fig. 1) using Mouselab (Johnson et al. 1993b), a computer-based process tracing technique. Information regarding all options was concealed behind boxes. Subjects could view a particular item of brand information by moving a mouse-controlled cursor into the relevant box. The software recorded the order and length of time for which each unit of information was accessed.

In each category, subjects provided three measures of preference: (1) *choice*, the restaurant they chose; (2) *points*, the number of points assigned to each restaurant out of a constant sum of 100 points; and (3) *trading price*, the value assigned to each of the three restaurants relative to the chosen one. Since subjects got a \$15 gift certificate to their chosen restaurant, it was assigned a trading price of \$15. We also asked subjects to indicate the amount of money (in dollars), if any, that they would need, in addition to a gift certificate worth \$15, in order to trade in the gift certificate to the chosen restaurant for each of the two unchosen ones. The trading price for each unchosen restaurant was calculated by subtracting this positive dollar amount from \$15. For instance, if a subject wanted an additional \$5 to trade her chosen certificate for one she had not chosen (say, B), the trading price for B was \$10.

Subsequently, subjects provided measures of task difficulty and of their confidence that they had made the best choice possible on seven-point scales (1: very difficult, 7: not difficult at all; 1: not at all confident, 7: very confident). Subjects' expertise in and liking for the restaurant category were used as measures of how meaningful the choice task was to them. Consequently, subjects provided

ratings on seven-point scales for familiarity (1: not at all familiar, 7: very familiar) and knowledge relative to the average student at their university (1: not knowledgeable at all, 7: very knowledgeable) as well as their liking for the category (1: do not like at all, 7: like very much). At the end of the study, we screened subjects using a restaurant familiarity task. Five subjects, who said that they had either been to one of the restaurants or had heard of two or more restaurants in the study, were replaced with new subjects. Finally, subjects obtained one of their chosen gift certificates through lottery, were debriefed, and dismissed.

Results and Discussion

Coupon-Induced Mere-Possession Effect. Table 1 shows the difference, across the three options, in choice shares (choice), points, and trading prices (price) between the experimental and control coupon conditions (i.e., $\text{choice}_{\text{COUPON-CONTROL}}$, $\text{points}_{\text{COUPON-CONTROL}}$, and $\text{price}_{\text{COUPON-CONTROL}}$). For example, the first entry in the study 1 column indicates that, on average, the choice share of an option was 0.11 higher when it was couponed prior to choice.

The three preference measures were highly correlated (Cronbach $\alpha = 0.85$). Therefore, to test whether the mere-possession effect can be produced in the absence of possession, we performed a MANOVA on the preference data. Since a model that includes all three options is over-specified for choice and points, all three preference measures were coded in terms of deviations from a base option, A, and its data were dropped from the analysis. We also ran a separate ANOVA for each measure (as well as a multinomial logit for choice) and tested the possession-without-possession hypothesis by contrasting preference for an option when it is couponed with preference in the control condition. As expected, possessing a gift certificate significantly increased preference for an option (choice share: 0.33 [by definition] to 0.44; $F(1, 140) = 3.96, p < .05$; points: 33.3 [by definition] to 35.6; $F(1, 140) = 4.25, p < .05$; price: \$9.28–\$9.65; $F(1, 140) = 8.98, p < .01$).

The Choice Process. To ascertain coupon-induced changes in the choice process and test the loss-aversion predictions, we contrasted several information search measures in the three experimental coupon conditions to the control condition (see Table 1). Attention to choice set information was measured in terms of looking time (seconds) at the six items of brand information and comparisons between these information items were characterized in terms of both the types (i.e., holistic and dimensional) and the number of transitions subjects made between pairs of items (see Fig. 1). Subjects often acquire brand information accidentally, particularly when comparing two nonadjacent items of information (Johnson et al. 1993b; Russo 1978). Since such acquisitions are likely to be brief, we excluded all information acquisitions of less than 200 milliseconds from the analysis.

FIGURE 1

BRAND X ATTRIBUTE DISPLAY OF CHOICE SET
IN MOUSELAB

	Option A	Option B	Option C
SA	SFUZZI Flawless service, chic beautiful crowd in stunning urbane bistro	MEZZANOTTE Tardy but helpful waiters, fun crowd in upbeat, lively setting	RALPH'S Slow rude service, screaming children amid tacky furniture
JP	SFUZZI Average tasting food, small portions, dried commercial pasta	MEZZANOTTE Decent portions, fair food, homemade pasta once in a while	RALPH'S Wonderful taste, hearty portions, daily homemade pasta
Chous	SFUZZI	MEZZANOTTE	RALPH'S

At a more global level, effort was measured in terms of total time spent on the choice task and the overall pattern of comparisons was characterized in terms of the degree to which search is holistic (within-option) versus dimensional (between-option). This was measured using Payne's (1976) Search Pattern Index (Search Index), (holistic transitions - dimensional transitions)/(holistic transitions + dimensional transitions), that ranges from 1 (completely holistic) to -1 (completely dimensional).

We conducted an ANOVA on the attention data with a single item of brand information as the unit of analysis resulting in 864 (36 subjects \times 4 decisions \times 6 items of brand information) observations. Comparisons between the six items were analyzed using an ANOVA with pairwise transitions (t) as the unit of analysis. For instance, in the ANOVA for dimensional transitions, the six possible pairwise dimensional transitions in a three-option \times two-attribute matrix (food: $t(A \leftrightarrow B)$, $t(A \leftrightarrow C)$, $t(B \leftrightarrow C)$; atmosphere: $t(A \leftrightarrow B)$, $t(A \leftrightarrow C)$, $t(B \leftrightarrow C)$) made up the six levels of the transition factor (see Fig. 1). As expected, the time spent looking at an item of information was correlated with the number of dimensional transitions involving that item (correlation = 0.63). However, because the unit of analysis was different for looking time and transitions, these two search measures were analyzed separately. The loss-aversion predictions were tested using a priori contrasts involving the coupon factor and its interactions.

Loss aversion predicts that subjects will pay more attention to an option, particularly its advantages, when it is couponed than in the control condition. Couponing did not significantly increase attention to an option (11.93–12.69 seconds) or even its advantages. If subjects initially scan all the options then they may focus on the couponed option only later in the decision. Greater attention to a couponed option was not evident in separate analyses of the first and second half of the decision. However, the loss-aversion prediction that subjects will conduct more dimensional transitions involving the couponed option was supported (1.77–2.59; $F(1, 210) = 5.25$, $p < .05$). Similarly, the prediction that subjects will focus more on the disadvantages of the noncouponed options is supported in terms of both looking time (12.39–13.57 seconds; $F(1, 210) = 5.38$, $p < .05$) and dimensional comparisons (1.07–1.71; $F(1, 210) = 3.94$, $p < .05$).

Loss aversion also predicts a general increase in dimensional processing in the experimental coupon condition relative to the control. However, couponing did not shift processing to a more dimensional mode (Search Index: 0.12–0.10). It is possible that subjects process information in an intrinsically holistic or dimensional manner and are, thus, unaffected by the couponing manipulation. If so, subjects who are more dimensional in their processing should display a larger mere-possession effect. This is supported, albeit weakly, by our results; the more dimensional subjects (as determined by a median split of subjects' search indices in the different coupon conditions) are somewhat more likely to display significant mere-possession effects (choice: 0.33–0.47; $F(1, 72) = 4.62$,

$p < .05$; points: 33.3–35.9; $F(1, 72) = 2.68$, $p < .15$; price: 8.6–9.6; $F(1, 72) = 6.51$, $p < .05$) than those who are more holistic (choice: 0.33–0.41; points: 33.3–35.1; price: 9.8–9.6; not significant [NS]).

Finally, subjects spend more time making a choice (55.63 vs. 60.66 seconds; $F(1, 210) = 4.56$, $p < .05$) in the couponed conditions than in the control condition. However, this increase in effort is not accompanied by any change in their task difficulty perceptions (couponed: 3.84; control: 4.04, NS) or in their confidence that they made the best decision possible (couponed: 4.55; control: 4.49, NS).

Role of Task Meaningfulness. The category familiarity, knowledge, and liking measures (Cronbach $\alpha = 0.81$) were averaged to form a composite task meaningfulness (meaning) measure. In each coupon condition, subjects were split into two groups around the median meaning value.

As predicted by loss aversion, task meaningfulness was a positive moderator of the coupon-induced mere-possession effect. Whereas the high-meaning group evidenced a strong mere-possession effect (choice: 0.33–0.49; $F(1, 64) = 6.52$, $p < .05$; points: 33.3–37.2; $F(1, 64) = 4.34$, $p < .05$; price: \$8.9–\$10.4; $F(1, 64) = 14.5$, $p < .01$), for the low-meaning group, a nonsignificant effect was found (choice: 0.33–0.42; points: 33.3–34.1; price: \$9.7–\$8.9). At the process level, high meaning was associated with greater attention to the couponed option (9.70–13.55 seconds; $F(1, 192) = 12.42$, $p < .01$), whereas low meaning was associated with significantly less attention (14.13–11.88 seconds; $F(1, 228) = 7.07$, $p < .01$). The comparison results were similar to the attention results. In particular, couponing shifted high-meaning subjects to a directionally more dimensional strategy (Search Index: 0.16–0.02) and low-meaning ones to a directionally more holistic one (Search Index: 0.04–0.16).

Summary. We demonstrated that the mere-possession effect can be produced even when subjects do not actually possess a good; mere possession of only a coupon for one of the choice options leads to an instantaneous increase in subjects' preference for that option. Moreover, the information search and the task meaningfulness results provide some support for a loss-averse choice process leading to such possession-without-possession effects. In the next study, we attempt to replicate these findings. More importantly, we elicit independent loss-aversion measures and postchoice attractiveness and importance ratings of the two attributes describing the choice options to further assess the role of loss aversion in driving such mere-possession effects.

STUDY 2

If loss aversion underlies possession-without-possession effects, then subjects should be loss averse on the attributes defining the choice set. In this study, we measure subjects' loss aversion on food and atmosphere as

attribute-specific buyer-seller gaps. If subjects are loss averse on an attribute, the amount (in dollars) they will want as compensation (selling price) for accepting a deterioration on that attribute will be greater than the amount they will pay (buying price) for an attribute improvement of identical magnitude. As previously mentioned, research indicates that consumers' selling prices are approximately twice their buying prices, particularly for quality-related attributes (Hardie et al. 1993; Tversky and Kahneman 1991). Therefore, at a minimum, we expect subjects' selling prices to be significantly greater than their buying prices. Importantly, we also expect subjects with higher degrees of loss aversion to display larger possession-without-possession effects.

Method

Since the goal of this study was to replicate and delve further into the mechanisms underlying mere-possession effects in the absence of possession, we simplified it in two ways. First, we restricted our stimuli to two-option choice sets of the two most popular restaurant categories: Italian and American. The attribute profiles of the two-option choice sets (see App. A) were based on the two extreme options, A and C, in study 1. The process of picking the final profiles based on multiple pretests was identical to that in study 1. Second, we only couponed the high-food, low-atmosphere option (C) since it displayed the largest mere-possession effect in study 1. Also, we collected attribute-specific loss-aversion estimates and postchoice ratings of attribute importance and attractiveness of the choice options' attribute-level descriptions.

Design. This study used a 2 (coupon) \times 2 (category) between-subjects factorial design. The coupon factor had two levels: (i) couponed and (ii) control. A total of 104 subjects participated in the study. Thirteen were dropped because of their prior familiarity with the restaurants and replaced to obtain 24 replications of the balanced design (96 subjects).

Procedure. The procedure was identical to that in study 1 except in the following ways. After subjects provided the familiarity ratings (the last task within each restaurant category in study 1), subjects rated the importance of the attributes, food and atmosphere, on seven-point scales (1: not at all important, 7: very important). Next, subjects rated the two food and two atmosphere descriptions corresponding to the two choice options on seven-point scales (1: do not like at all, 7: like very much). Finally, subjects provided loss-aversion measures for food and atmosphere. For each attribute, this was measured relative to money by comparing subjects' willingness to accept (in terms of money demanded) a reduction in the level of that attribute (from high to low) to their willingness to pay (in terms of money offered) for an increment of the same magnitude (from low to high). To make this task consistent with the overall study, subjects imagined scenarios that involved trading gift certificates between

pairs of restaurants that were identical except on food *or* atmosphere (see App. B). To reduce the potential transparency of this task, we used similar tasks involving attributes such as dress code, distance, and safety as filler items.

Results

Coupon-Induced Mere-Possession Effect. A MANOVA and separate ANOVAs conducted on the three measures of preference—choice, points, and trading price (Cronbach $\alpha = 0.88$)—reveal that, as in the three-option efficient set, mere possession drives a preference increase. This effect is significant for choice share (0.38–0.65; $F(1, 94) = 6.80, p < .01$); points (44.9–52.2; $F(1, 94) = 3.60, p < .05$); and trading price (\$6.3–\$10.2; $F(1, 94) = 6.35, p < .01$).

The Choice Process. The information processing predictions were tested through ANOVAs that were similar in structure to those in study 1. In line with loss aversion, subjects attend more to option C (13.30–16.85 seconds; $F(1, 190) = 7.05, p < .01$), particularly its advantages (6.00–8.10 seconds; $F(1, 94) = 5.98, p < .05$), and conduct more dimensional transitions involving it (1.72–2.60; $F(1, 190) = 6.40, p < .05$) when they own a coupon for it. They also attend more to the disadvantages of the noncouponed option (6.13–9.14 seconds; $F(1, 94) = 10.14, p < .01$) and conduct more dimensional transitions involving this information (0.77–1.51; $F(1, 94) = 5.46, p < .05$).

We observe a marginal shift toward more dimensional processing (Search Index: 0.32–0.19; $F(1, 94) = 2.44, p = .10$). More generally, subjects spend 10.6 seconds more making a decision (38.99–49.57 seconds; $F(1, 94) = 3.85, p < .05$) and find the decision marginally more difficult (3.44–3.98; $F(1, 94) = 2.80, p < .10$) when option C is couponed. A nonsignificant decrease in subject's confidence ratings (5.03–4.63) is observed.

Loss Aversion on Food and Atmosphere. As predicted, subjects' stated selling prices (SP) were significantly greater than their buying prices (BP) for both food (SP: \$14.12, BP: \$5.52; $F(1, 94) = 56.10, p < .01$) and atmosphere (SP: \$16.77, BP: \$7.75; $F(1, 94) = 37.46, p < .01$). Subjects were directionally more loss averse on food (SP/BP = 2.56) than on atmosphere (2.16).

In making choices in the couponed condition, subjects trade off a loss in food with a gain in atmosphere. Therefore, $SP_{\text{Food}}/BP_{\text{Atmosphere}}$ is a more appropriate measure of loss aversion than $SP_{\text{Food}}/BP_{\text{Food}}$ or $SP_{\text{Atmosphere}}/BP_{\text{Atmosphere}}$ for testing its moderating effect on the mere-possession effect. However, because this measure is potentially confounded with both the importance subjects assign to the two attributes and differences in their perceived values of the two food and atmosphere descriptions used to elicit loss aversion, the final measure was normalized by their importance weights and the perceived value differences, respectively. In other words, loss aversion = $[(SP_{\text{Food}})/$

$(\text{importance}_{\text{Food}})(\text{rating}_{\text{Food}}(\text{high}) - \text{rating}_{\text{Food}}(\text{low})) / [(\text{BP}_{\text{Atmosphere}}) / (\text{importance}_{\text{Atmosphere}})(\text{rating}_{\text{Atmosphere}}(\text{high}) - \text{rating}_{\text{Atmosphere}}(\text{low}))]$. The interaction of loss aversion with the mere-possession effect was assessed by a split of subjects in each coupon condition into two groups around the median value of this loss-aversion measure.

We obtained a positive, albeit weak, relationship between subjects' loss aversion and the magnitude of their coupon-induced mere-possession effect. Although the loss-aversion \times coupon interaction was not significant, subjects with more loss aversion for the food-atmosphere trade-off (as determined by the median split) displayed a significant mere-possession effect (choice: 0.30–0.63; $F(1, 45) = 5.67, p < .05$; points: 45.9–54.8; $F(1, 45) = 3.15, p < .10$; price: \$4.3–\$10.6; $F(1, 45) = 5.39, p < .05$). The mere-possession effect for subjects with lower loss aversion was not significant (choice: 0.45–0.66; points: 44–49.2; price: 8.3–9.8). At the process level, greater focus on the couponed option was significant for the high-loss-aversion group (12.6–16.8 seconds; $F(1, 92) = 5.44, p < .05$) but not the low-loss-aversion one (14–16.8 seconds). This difference was reflected more weakly for transitions involving the couponed option (high loss aversion: 1.63–2.52; low loss aversion: 1.86–2.65).

Role of Task Meaningfulness. As in study 1, subjects with high meaning (as determined by median splits) displayed strong mere-possession effects (choice: 0.26–0.77; $F(1, 47) = 14.13, p < .01$; points: 40.7–57.3; $F(1, 47) = 11.67, p < .01$; price: \$3.2–\$11.8; $F(1, 47) = 14.5, p < .01$), while low-meaning subjects displayed nonsignificant mere-possession effects (choice: 0.52–0.55; points: 46.8–49.3; price: \$9.5–\$8.4). Moreover, we obtain some validation for our assertion that this result stems from the high-meaning group's larger difference in utilities between the food information of the two choice options (i.e., $u(\text{Food}_C) - u(\text{Food}_A)$). The postchoice rating difference between the food information of the two options in the couponed condition was significantly higher ($F(1, 100) = 5.02, p < .05$) for the high-meaning group (food rating difference: 4.03) than for the low-meaning group (food rating difference: 3.09). However, the two groups are not significantly different in their loss aversion for the food-atmosphere trade-off (high meaning = 1.63, low meaning = 2.16).

The moderation result was reflected at the process level more weakly than in study 1. High meaning, but not low meaning, was associated with significantly greater focus on the couponed option (high meaning: 11.2–15.6 seconds; $F(1, 96) = 7.56, p < .01$; low meaning: 15.67–18.25 seconds, NS) and more comparisons involving it (high meaning: 2.03–2.96, $F(1, 96) = 2.97, p < .10$; low meaning: 1.59–2.27, NS).

In summary, the results regarding preference, information search, and the moderating effects of task meaningfulness obtained in the first study replicate in this study. In addition, subjects are not only loss averse on food

and atmosphere but also display marginally larger mere-possession effects when their loss aversion in the food-atmosphere trade-off is greater.

DISCUSSION

This research demonstrates and characterizes a mere-possession effect that occurs in the absence of actual possession. The two studies show that in relatively small efficient choice sets, mere and arbitrary possession of even a rebate coupon for an option prior to choice enhances consumers' preference for that good, even when the choice options are meaningfully comparable on relevant attributes and consumers have considerable liking for and knowledge of the product category. These studies also provide evidence of a loss-averse choice process underlying such effects in this consumer choice context. Interestingly, the results counter pervasive marketing wisdom about the deleterious effects of promotional activity on brand loyalty (Kotler and Armstrong 1996) by establishing previously unexamined possession-based, preference-enhancing effects of promotional tactics that are likely to only be reinforced over subsequent choice occasions if they induce consumers to actually choose, and possess, the promoted product.

Loss aversion is only one of several mechanisms that may underlie possession-without-possession effects in consumer choice. Although we focused on loss aversion, we can examine the data to obtain insights into the status of two alternate viable accounts of such preference-enhancing effects: cognitive economy and confirmation bias.

Cognitive Economy. Since consumers' decision-making endeavors are often motivated by their desire to conserve limited cognitive resources, they may want to minimize cognitive effort even when no substantial search, transaction, or transition costs exist. In such cases, consumers may choose the couponed option merely because it involves less cognitive effort. Such a strategy implies a truncated choice process, perhaps with holistic focus on the possessed option and minimal focus on the remaining choice options. This is clearly not the case in the two- and three-option efficient sets we examined. Also, subjects who find the task more meaningful are, in general, less likely to defer to cognitive economy. Therefore, if the mere-possession effect was based primarily on such effort-saving considerations, then we would expect subjects who find the task to be more meaningful to display smaller effects. This is not supported by our results. Finally, a consumer may defer more to cognitive economy considerations in larger choice sets because they impose a greater cognitive burden. Therefore, if the mere-possession effect is based largely on cognitive economy considerations, then it should increase with increasing choice set size. However, consumers seemed no more likely to retain the couponed option in the three-option choice set than in the two-option one (option C: choice share in-

crease = 0.28 [two-option] vs. 0.30 [three-option], points increase = 7.3 [two-option] vs. 5.6 [three-option], price increase = \$3.9 [two-option] vs. \$2.2 [three-option]). Of course, the incremental contribution of an additional option to cognitive effort may not be substantial, particularly in relatively small set sizes. Thus, effort-saving considerations may play a larger role in such possession-without-possession effects when the choice sets are much larger and/or more complex.

More generally, our results suggest that consumers may actually work harder at making a choice upon possessing a coupon for one of the choice options. Moreover, the mere-possession effects of couponing appear to increase with greater task meaningfulness. Thus, to the extent that greater decision effort and task meaningfulness often mitigate biased decision making (see Wilson and Schooler [1991] for exception), our findings suggest that the mere-possession effect may not necessarily represent a decision bias.

Confirmation Bias. Much research suggests that people are likely to regard information that confirms, rather than disconfirms, their hypotheses or expectations about a product as more relevant to their judgments of its desirability (Alloy and Tabachnik 1984; Fischhoff and Beyth-Marom 1983; Friedrich 1993). If possessing a coupon for one of the choice options either casts the subsequent choice decision in terms of a testable hypothesis about its desirability or creates a preconception that it is indeed a desirable option, then preference for it may result from a confirmation bias in people's processing of choice set information. In particular, people are likely to focus selectively or disproportionately on choice set information that confirms their hypothesis or expectation that the couponed option is indeed desirable (i.e., the advantages of the couponed brand and the disadvantages of the noncouponed brands) rather than on disconfirming information (i.e., disadvantages of the couponed brand and advantages of the noncouponed brands).

At the process level, the confirmation bias is likely to be manifested in people's tendency to oversample confirming information and undersample disconfirming information (Alloy and Tabachnik 1984). Consequently, we can expect a confirmation bias in people's assessment of the couponed option to be reflected in greater attention to its relative advantages (as opposed to its disadvantages) and to the relative disadvantages (as opposed to its advantages) of its competitors. Moreover, for any given level of dimensional comparisons involving the couponed option and its competitors, we expect more comparisons involving the relative disadvantages of the competitors (i.e., confirming comparisons) than their relative advantages (i.e., disconfirming comparisons). These expectations are not borne out in either study; the focus on confirming information (i.e., the advantages of the couponed option and disadvantages of the competitors) is not significantly greater than that for disconfirming information (i.e., the disadvantages of the couponed option and advan-

tages of the competitors) either in terms of looking times (study 1: confirming information = 12.97 seconds, disconfirming information = 13.03 seconds; study 2: confirming information = 17.35 seconds, disconfirming information = 16.82 seconds) or dimensional comparisons (study 1: confirming transitions: 1.71, disconfirming transitions: 1.33; study 2: confirming transitions: 1.51, disconfirming transitions: 1.08).

Moreover, the evidence of a positive moderating effect of task meaningfulness runs counter to what the confirmation bias might predict. Although individual difference correlates of the confirmation bias have received scant attention, some research suggests that consumers who find the choice task less meaningful are more likely to view it as merely a test of the hypothesis that the couponed option is desirable (Harkness, DeBono, and Borgida 1985). In fact, recent conceptualization of the confirmation bias (Friedrich 1993) as an ecologically efficient error minimization strategy implies that lower task meaningfulness may, in general, diminish consumers' ability to conclusively detect, and their desire to minimize the possibility of, false negative errors (i.e., overlooking a desirable noncouponed option), causing them to focus instead on merely confirming the desirability of the couponed option. It is important to note, however, that our process and moderation predictions and results, together, do not unequivocally rule out the confirmation bias as a potential, and perhaps complementary, driver of possession-without-possession effects. Cleaner tests of this alternate account are needed.

Future Directions. Several directions of future research stem from the limitations inherent in this research. First, we measured the moderating effect of task meaningfulness in terms of subjects' category liking and expertise. A cleaner test of moderation requires a more direct measure, if not manipulation, of this individual difference construct. Moreover, to heighten task realism, we intentionally picked product categories that were involving to our subjects. However, since consumers' involvement, as well as expertise and liking for consumer products, in the marketplace spans a much wider range, how the mere-possession effects of coupons vary with category knowledge and involvement needs to be established. Finally, future research needs to determine whether and how mere-possession effects in more tangible product categories, such as supermarket goods, differ from those in experiential categories such as restaurants.

In moving toward generalizability, the differential effects of couponing on the options in the three-option efficient set also need to be investigated further. An important step toward understanding the boundary conditions of such possession-without-possession effects would require examining how couponing option A (low food) in study 2 affects preferences. Our subjects appeared to be similarly loss averse on both food and atmosphere dimensions. Therefore, if the coupon induced mere-possession effect is driven primarily by loss aversion, then we would expect

the preference boosts to the two options in study 2 to be similar. The generalizability of our findings is also restricted by the narrow range of set sizes we examined. For instance, cognitive economy may play a larger role in driving coupon-induced mere-possession effects in more complex choice sets, where the advantages and disadvantages of the options are not as readily apparent. Thus, to further our understanding of possession-without-possession effects, we need to examine not only a larger range of choice set sizes and configurations but also different categories and relevant attributes therein. Finally, consumers are often differentially familiar with the choice options in the marketplace because of prior experience or ownership. How couponed products, particularly new ones, are evaluated in light of previously or currently possessed options in such situations would be of much interest to marketers. Thus, extending our findings from a

stimulus-based choice setting to memory-based or mixed choice situations is an important future research direction.

In conclusion, this article is a first step toward establishing both the boundary conditions and the causes of the preference-enhancing effects of mere possession. We demonstrate that in small, stimulus-based, efficient choice sets, ownership of merely a coupon to one of the choice options enhances preference for that option. Moreover, such possession-induced preference, even when consumers do not possess the actual product, is accompanied by systematic changes in how they process choice set information and is positively moderated by the meaningfulness of the task, providing support for a loss-aversion explanation. A more comprehensive delineation of the sustainability, the generalizability, and the plausibility of alternate causes of such possession-without-possession effects awaits further investigation.

APPENDIX A

TABLE A1
STUDIES 1 AND 2: RESTAURANT PROFILES

Restaurant	Description
Study 1:	
Italian:	
Sfuzzi	Low food—average tasting food, small portions, dried commercial pasta High atmosphere—flawless service, chic beautiful crowd in stunning urbane bistro
Mezzanotte	Medium food—decent portions, fair food, homemade pasta once in a while Medium atmosphere—tardy but helpful waiters, fun crowd in upbeat lively setting
Ralph's	High food—wonderful taste, hearty portions, daily homemade pasta Low atmosphere—slow, rude service; screaming children amid tacky furniture
American:	
Borgia Cafe	Low food—average taste; very small listing of dull, unimaginative entrees High atmosphere—good service, nightly live jazz, one of city's classiest spots
Rose Tattoo Cafe	Medium food—fairly tasty food, few innovative dishes in mainly standard menu Medium atmosphere—snobbish but efficient hostess, live music, nondescript decor
Judy's Cafe	High food—delicious food; extensive menu of diverse, creative dishes Low atmosphere—slow, often pushy, waiters; cramped shabby space; no music
Chinese:	
New Dynasty	Low food—satisfactory, but unoriginal bland versions of true Chinese food High atmosphere—courteous, speedy service; spotless; exotic, ornate Chinese decor
Phan's	Medium food—tasty dishes, but often much too hot and spicy to fully enjoy Medium atmosphere—shabby, poorly lit space; plain tableware; eager, alert service
Tang's	High food—savory tasting food with delicate, subtle, authentic flavors Low atmosphere—slow negligent service, frayed faded drapes, run-down look
International:	
16 th Street Grill	Low food—okay tasting food of only one ethnicity, combo specials rare High atmosphere—impeccable service, no wait, intimate candlelight ambiance
Dmitri's	Medium food—two ethnic cuisines, tasteful food, special meals once a week Medium atmosphere—fast but rude waiters, 10–20 minute wait, authentic ethnic decor
Serrano	High food—superb food of numerous ethnic origins, daily combo specials Low atmosphere—slow, careless waiters; very long wait; often crowded and noisy
Study 2:	
Italian:	
Girasole	Low food—okay tasting food, average portions, use commercial pasta only High atmosphere—flawless service, chic beautiful crowd in stunning elegant bistro
Tiramisu	High food—superb taste, hearty portions, often serve homemade pasta Low atmosphere—curt, unattentive waiters; dirty tablecloths; patrons too noisy
American:	
Lautrec Cafe	Low food—average taste; extremely small menu of dull, unimaginative fare High atmosphere—impeccable service, live jazz music, one of city's classiest spots
Judy's Cafe	High food—delicious food; extensive menu of diverse, creative dishes Low atmosphere—dark and uncomfortable interior, no music, friendly waiters

APPENDIX B

Elicitation of Attribute-Specific Loss-Aversion Measures: Food Attribute

Selling Price

Imagine that you have a \$15.00 gift certificate for RESTAURANT X and are going to eat there tonight. In terms of QUALITY OF FOOD it is: *delicious food, extensive menu of diverse, creative dishes*. Another participant in this study, whom you do not know, has a \$15.00 gift certificate to RESTAURANT Y which is identical to yours EXCEPT that it is WORSE on the QUALITY OF FOOD dimension: *average taste, extremely small menu of dull, unimaginative fare*. As you are about to leave for RESTAURANT X, you bump into this other participant. He tells you that he is willing to pay you some additional cash if you trade gift certificates with him and go to RESTAURANT Y instead. What is the minimum amount of cash he has to pay you for you to be willing to trade gift certificates and accept a resultant loss on the QUALITY OF FOOD dimension.

Buying Price

Imagine that you have a \$15.00 gift certificate for RESTAURANT X and are going to eat there tonight. In terms of QUALITY OF FOOD it is: *average taste, extremely small menu of dull, unimaginative fare*. Another participant in this study, whom you do not know, has a \$15.00 gift certificate to RESTAURANT Y which is identical to yours EXCEPT that it is BETTER on the QUALITY OF FOOD dimension: *delicious food, extensive menu of diverse, creative dishes*. As you are about to leave for RESTAURANT X, you bump into this other participant. He tells you that he is willing to trade gift certificates with you if you pay him some additional money in cash. How much cash are you willing to pay in order to trade gift certificates, and obtain a resultant gain on the QUALITY OF FOOD dimension?

[Received December 1994. Revised November 1996.
Brian Sternthal served as editor and Joseph W. Alba served as associate editor for this article.]

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