

RAN KIVETZ and ITAMAR SIMONSON\*

Although frequency programs (FPs) have become ubiquitous in the marketplace and a key marketing-mix tool for promoting customer relationship and loyalty, little is known about the factors that determine how such programs are evaluated by consumers. The authors investigate the impact of the level of effort participants must invest to obtain the reward on the types of rewards they prefer and, consequently, on the decision to join the FP. In particular, the authors propose that higher required effort shifts consumer preferences from necessity to luxury rewards, because higher efforts reduce the guilt that is often associated with choosing luxuries over necessities. A series of studies with approximately 3100 consumers demonstrated that (1) higher program requirements shift preferences in favor of luxury rewards, (2) this effect is also observed when consumers choose between luxury and necessity rewards (of the same value) that they themselves proposed, and (3) the effect of program requirements on reward preferences is stronger among consumers who tend to feel guilty about luxury consumption and among those for whom the effort is invested in the context of work rather than pleasure. In addition, contrary to an alternative explanation based on the notion that higher requirements signal higher value of luxury rewards, the authors show that (1) when the program requirements are held constant but the individual consumer's effort is higher, the shift in preference toward luxuries is still observed and (2) increasing the monetary cost of participating in the FP decreases consumer preferences for luxury rewards. The authors discuss the theoretical implications of this research and the practical implications with respect to the design, targeting, and promotion of FPs.

## Earning the Right to Indulge: Effort as a Determinant of Customer Preferences Toward Frequency Program Rewards

Frequency (loyalty) programs (FPs) that recognize and reward frequent customers have become one of the most commonly used marketing tools for retaining customers and stimulating product or service usage. In particular, evidence that customer retention is cheaper than acquisition and that some customers are more profitable than others has led many companies to establish FPs that both reward loyalty and increase the costs of switching for the customer (e.g.,

Kopalle, Neslin, and Singh 1999; O'Brien and Jones 1995; Orr 1995; Raphael 1998). First introduced in 1981 with American Airlines' AAdvantage program, FPs are currently employed by a wide range of consumer goods and service companies and are increasingly popular among business-to-business companies as well (e.g., Barlow 1999; Blattberg and Deighton 1996; Kearney 1990). Schneiderman (1998) reports that nearly half of the U.S. population belongs to at least one FP and that such programs are growing at a rate of approximately 11% a year. Moreover, new technologies (e.g., smart cards, the Internet) facilitate the proliferation of such programs by providing cheaper and more powerful solutions for managing customer relationships.

Despite the growing popularity of FPs, little is known about the factors that influence consumers' perceptions of and responses to such programs and why some programs are highly successful (e.g., frequent flier programs) whereas

---

\*Ran Kivetz is Assistant Professor of Marketing, Graduate School of Business, Columbia University (e-mail: rk566@columbia.edu). Itamar Simonson is the Sebastian S. Kresge Professor of Marketing, Graduate School of Business, Stanford University (e-mail: simonson\_itamar@gsb.stanford.edu). The authors are grateful to Lee Ross, V. "Seenu" Srinivasan, Jennifer Aaker, John Jost, and the anonymous *JMR* reviewers for their helpful comments and suggestions. Special thanks are due to Yifat Kivetz for help and discussions during all phases of this research.

---

other programs fail (e.g., Airmiles-USA). The main goal of the present research is to improve the understanding of consumer preference toward FPs and, more generally, toward streams of efforts that lead to future rewards (e.g., publishing to receive tenure, dieting to become thin). Frequency programs raise a variety of conceptual questions related to such issues as the characteristics of the required efforts, the obtained rewards, the decision to join the program, and the factors influencing the likelihood of reaching the reward. In this research, we examine the relationship between the magnitude and type of effort invested by the participants in complying with frequency program requirements and the types of rewards they prefer. In particular, we propose that the level of the program's requirements has a systematic effect on consumers' reward preferences. In a different article (Kivetz and Simonson 2001), we study the impact of the magnitude of effort on preferences for and likelihood of joining FPs.

We begin with a brief review of relevant prior work on FPs, followed by a theoretical analysis of the effect of the level of program requirements on the type of rewards consumers prefer. This discussion leads to the prediction that higher effort enhances preference for luxury compared with necessity rewards. *Luxury* is defined as a "non-essential item or service that contributes to luxurious living; an indulgence or convenience beyond the indispensable minimum." *Necessity* items, in contrast, are defined as "items (as of food, clothing, shelter, medical care) that cannot be done without; things that must be had for the preservation and reasonable enjoyment of life; essentials" (*Webster's Third New International Dictionary* 1986). We then present a series of studies, with a total of approximately 3100 consumers, that (1) tested this basic proposition in different situations, (2) tested the theory underlying the hypothesis regarding the relation between the level and type of program requirements and the type of rewards preferred, and (3) examined an alternative explanation for the results. We discuss the theoretical and practical implications of this research in the final section.

#### PREFERENCES TOWARD STREAMS OF EFFORTS FOR FUTURE REWARDS

Attaining rewards typically requires consumers to invest effort (see also Drèze and Hoch 1998; Hsee 2000; Soman 1998). In many cases, including FPs, such efforts are extended over time, and rewards are provided only after completion of the required effort stream. Perceived (program) effort is defined here as any inconvenience inherent in complying with the program requirements, such as when consumers make a special effort to buy at a particular store or purchase more than they would have bought otherwise. Perceived effort also includes any substitution costs, that is, the disutility consumers incur by purchasing a particular brand that they would not have bought otherwise (Blattberg and Neslin 1990).

Although there has not been much research on consumer preference toward streams of efforts for future rewards, several branches of literature in psychology have examined the effects of various efforts (means) and rewards (goals) on motivation and behavior (e.g., Brehm and Self 1989; Lepper 1981; Mischel, Cantor, and Feldman 1996). Perhaps the most robust and straightforward finding from these investigations is that rewards and goals can be highly motivating (e.g., Hilgard and Bower 1975; Latham and Locke 1991).

For example, even a single episode of reinforcement (e.g., one pellet of food) in an operant conditioning experiment can lead an animal to persist in the rewarded behavior for a long period (e.g., continue pecking thousands of times). Moreover, research on human behavior has demonstrated that people possess a strong drive to engage in efforts directed at achieving future rewards (e.g., Atkinson 1957; Nicholls 1989). Marketers have been taking advantage of this tendency by using a wide range of promotional devices that offers benefits in return for the expenditure of effort (e.g., rebates, coupons, FPs).

Not all programs are successful; however, an observation of the behavior of many highly motivated FP participants, such as frequent fliers who are willing to tolerate long delays to earn miles (e.g., Rose 1988), suggests that FPs can be highly enticing. One reason some FPs are attractive may be their ability to increase hedonic, luxury experiences without the high psychological cost of such consumption. Previous research indicates that, compared with necessary consumption, buying luxury items is harder to justify and may evoke guilt (e.g., Prelec and Loewenstein 1998; Thaler 1985). Thus, FPs, which provide rewards for the expenditure of effort rather than money, may serve as a compelling justification for obtaining guilt-free luxuries. Next, we examine more closely the preference for luxury versus necessity rewards and how it is affected by the level of the program requirements.

#### REQUIRED PROGRAM EFFORT AND PREFERENCES FOR LUXURY VERSUS NECESSITY REWARDS

Philosophers, sociologists, and political scientists have discussed the lower status of luxuries compared with necessities in terms of basic importance or hierarchy of needs (e.g., Berry 1994; Maslow 1970; Weber 1998). Berry (1994) describes luxuries as objects of desire that provide positive pleasure, whereas necessities are objects that relieve an unpleasant state of discomfort. He argues that societies often adhere to a principle of precedence such that, "when Alan needs something that Brenda wants but does not need, then meeting Alan's need is *prima facie* morally preferable to satisfying Brenda's desire" (Berry 1994, pp. 199–200). The principle of precedence is consistent with some analyses of Western society and, in particular, of American culture (e.g., Scitovsky 1992; Weber 1998). In his influential essay on the Protestant ethic, the sociologist Max Weber proposed that Protestantism inspired a form of rationalized capitalism in which making money and spending it frugally (i.e., on necessities rather than on luxuries) became an ethical obligation.

Consumer and decision researchers have also discussed the inherent disadvantage of luxuries compared with necessities (e.g., Kivetz 1999; Prelec and Herrnstein 1991; Prelec and Loewenstein 1998; Thaler 1980, 1985). A related stream of research has examined consumer trade-offs and choices between hedonic and utilitarian items (e.g., Chandon, Wansink, and Laurent 2000; Dhar and Wertenbroch 2000; Hirschman and Holbrook 1982; Strahilevitz and Myers 1998). Although conceptually, luxuries are not necessarily hedonic and necessities are not always utilitarian, these classifications tend to be correlated: Most luxuries are associated with hedonic experiences, and most necessities represent utilitarian items. The correspondence between these two classifications is also reflected in the dictionary defini-

tions of luxuries and necessities (presented previously) and in a pilot study described subsequently. It should be emphasized, though, that the more relevant distinction is between ordinary, necessary items and "special," luxury items that customers do not normally consume and have more difficulty justifying (e.g., Berry 1994; Weber 1998).

Recent research has examined the notion that some consumers may overconstrain their purchases and consumption of luxuries (e.g., Kivetz and Simonson 2002; Prelec and Loewenstein 1998; Thaler 1980, 1985, 1999). Prelec and Loewenstein (1998) point out that consumers making purchases often experience an immediate pain of paying, which can weaken the pleasure derived from consumption and/or discourage consumption altogether. The pain of paying is likely to be more pronounced for luxuries, which are often difficult to justify and, by definition, are not essential. Moreover, if choice is viewed as based on reasons (e.g., Shafir, Simonson, and Tversky 1993), luxuries are at a natural disadvantage compared with necessities because the latter have the ultimate justification—a person cannot do without them.

Furthermore, purchasing and consuming luxuries can evoke guilt (e.g., Lascu 1991; Prelec and Herrnstein 1991; Strahilevitz and Myers 1998; Thaler 1980). In particular, consumers may feel guilt about purchasing hedonic luxuries with out-of-pocket monetary costs when doing so may be construed as wasteful. The consumption or anticipation of hedonic luxuries, such as vacations and gourmet restaurant dinners, may evoke guilt even when the luxuries are offered at no cost, if consumers believe that the items will take away from their work or add to their waistlines. As Lascu (1991) asserts, consumers often feel guiltiest about the things that provide them with the highest pleasure. Indeed, research on mental accounting (e.g., Thaler 1985, 1999) and mental budgeting (e.g., Heath and Soll 1996) suggests that people do not buy enough luxuries even when they would provide more pleasure or satisfaction than could be achieved by saving money. Next, we discuss some mechanisms consumers might use to enhance and justify luxury consumption.

#### *Mechanisms for Reducing the Guilt Associated with Luxury Consumption*

The literature suggests several mechanisms that can reduce the guilt that is often associated with consumption of luxuries and thus increase the likelihood that consumers will choose luxuries. Thaler (1980) proposes that, in the recreation industry, which sells hedonic luxuries, there are market institutions that are designed to take choice out of the hands of consumers. For example, he cites the case of Club Med vacations that are mostly prepaid before the consumers arrive. By prepaying most of their expenses, consumers eliminate the guilt associated with costly, pleasurable activities during their vacations. Kivetz and Simonson (2002; see also Thaler 1985) suggest that many consumers recognize their attraction to necessities and the tendency to deprive themselves of luxuries and hedonic experiences. Therefore, when given the opportunity, consumers may precommit to indulgence to ensure that the goal of having more fun and luxury is realized. In a series of studies in which respondents chose between a luxury item and a cash amount of equal or greater value, many respondents (between 13 and 39% in the various conditions) selected the luxury over the cash and explicitly explained their decision as a precommitment to indulgence.

Prelec and Herrnstein (1991) argue that people may sometimes hold moral or prudential rules against hedonic experiences, especially when the experiences come at the expense of more noble activities (e.g., work). However, consumers can earn the right to indulge and choose hedonic over utilitarian options. For example, Strahilevitz and Myers (1998) show that promised donations to charity are more effective in promoting frivolous luxuries than in promoting practical necessities, presumably because charitable giving reduces the guilt associated with hedonic consumption. Similarly, according to a 1996 *Wall Street Journal* article (cited by Dhar and Simonson [1999a]), the decision of the American Red Cross to stop serving butter cookies generated a major donor backlash. The article quotes two disappointed blood donors who said that, "As an adult, how better to indulge in a low-guilt plunge off the low-fat wagon than after an act of self-sacrifice" and "It [giving blood] was an excuse to splurge." Thus, overcontrolled, pleasurable luxuries that evoke guilt and require special reasons and justifications might benefit from coupling with more "virtuous accounts" such as charitable giving, work, and effort (see also Kivetz 1999). As discussed next, the notion that luxuries need to be earned to alleviate the guilt that tends to be associated with such consumption has implications for consumer evaluation of FPs and, in particular, for the relation between program requirements and preferred rewards.

#### *The Effect of Program Requirements on Preferences Between Luxury and Necessity Rewards*

In the context of FPs, anticipating the completion of a long effort stream may serve as a compelling script or reason for choosing and consuming luxury rewards. That is, increasing the magnitude of program requirements may reduce the guilt that is often associated with choosing and consuming luxuries. For example, when a grocery store requires 40 instead of 10 shopping visits for a customer to earn a reward, the perceived effort is higher, which in turn may increase the preference for luxury over necessity rewards. The effect of increasing the program requirements on the preferred rewards is expected to apply both when consumers choose among rewards and when they decide whether to join an FP that offers a particular award. With respect to the latter, luxury (relative to necessity) rewards are expected to have greater (positive) impact if the program requires greater effort. By examining both choices between programs (or rewards) and decisions whether to join a particular FP, we can rule out the possibility that the effect of the level of program requirements on reward preferences is limited either to situations in which consumers compare two FPs or to cases in which they evaluate each program individually (see, e.g., Hsee and Leclerc 1998; Nowlis and Simonson 1997).

The discussion leads to the following hypothesis:

- H<sub>1</sub>: Increasing the magnitude of program requirements will increase preference for FPs that offer luxury rather than necessity rewards.

#### *OVERVIEW OF STUDIES*

We conducted a series of studies to test H<sub>1</sub> and the hypotheses discussed subsequently. The participants in these studies were approximately 3100 travelers who were waiting for their flights at domestic terminals in a major airport.

They were between 18 and 80 years of age and represented a wide range of demographic characteristics. In each study, respondents were randomly assigned to conditions.

In each study, a written introduction explained the general concept of frequency (loyalty) programs, using the example of frequent flyer programs, and asked respondents to indicate their preferences toward or likelihood of joining the described FPs. The programs used in the study were based on actual FPs available in the marketplace. The descriptions of the relevant FPs specified the program requirements (e.g., number of purchases before reward attainment) and presented the rewards (in some cases, with color photographs).

The rewards we used were either hedonic luxuries or utilitarian necessities. We pretested these rewards in a pilot study in which one group of respondents rated each of several rewards on a luxury–necessity scale (using the dictionary definitions mentioned previously) and a second group rated these rewards on a hedonic–utilitarian scale.<sup>1</sup> The items rated included the rewards used in this research. In all cases, the products and services designated as luxury/hedonic or as necessity/utilitarian rewards were rated as such by respondents. Furthermore, the correlation between the

means of the rewards rated on the two scales was .975, indicating that all luxury (necessity) items were also perceived as hedonic (utilitarian). Although the observed correlation between the luxury and hedonic dimensions may not generalize to the entire universe of items, in most cases—including the rewards used in this research—luxury items are hedonic, whereas necessity items are utilitarian.

#### EFFECTS OF HIGHER PROGRAM REQUIREMENTS ON PREFERENCES BETWEEN LUXURY AND NECESSITY REWARDS: TESTS OF $H_1$

##### Tests of the Effect of Program Requirements on Choice Between Programs Offering Luxury Versus Necessity Rewards

**Method.** We tested  $H_1$  in two studies using choices between programs, involving a car rental FP (180 respondents) and a Macy's store FP (294 respondents). As shown in Figure 1, the two problems had a similar format, in which respondents chose between two identical programs, one offering a luxury reward and the other offering a necessity reward of the same value. In the car rental FP, respondents also had the option not to join either program (see Dhar and Simonson 1999b). The level of program requirements was

<sup>1</sup>More details can be obtained from the first author.

Figure 1  
FREQUENCY PROGRAMS USED IN THE TESTS OF  $H_1$

#### Frequent Car Renter Program

Imagine that your favorite car rental company offers a choice between the following two loyalty reward programs:

##### Program A:

After you rent a car 10 [20] times, you will earn your choice of either a luxurious 1-hour facial cosmetic treatment or a 1-hour pampering Swedish or Sports massage (retail value = \$70).



OR



##### Program B:

After you rent a car 10 [20] times, you will earn \$70 of credit toward a future grocery bill at your favorite local grocery store.

Circle the program you would prefer to join:

A    B    Wouldn't join either program

#### Frequent Macy's Shopper

Imagine that Macy's offers the following reward programs for its frequent customers:

**Program A:** After you accumulate \$1,000 [\$2,000] of purchases, you get \$100 of credit good for two tickets at the San Francisco Symphony, the SF Opera, or any play theater in the city.

**Program B:** After you accumulate \$1,000 [\$2,000] of purchases, you get \$100 of credit good for purchases in any grocery store in your area (such as Lucky, Safeway, Whole Foods, Draeger's, and Andronico's).

Which program would you prefer to join?    A    B

manipulated between subjects: 10 versus 20 car rentals and \$1,000 versus \$2,000 in store purchases.

**Results.** In the frequent car renter program, when program requirements were low (i.e., "rent a car 10 times"), the relative choice share of the program offering the luxury reward was 26% (i.e., 22 of 84 respondents who chose a program). Conversely, when program requirements were high (i.e., 20 rentals), the relative choice share of the program offering the luxury reward increased to 41% (i.e., 31 of 75 respondents who chose a program). This result supports  $H_1$  ( $\chi^2 = 4.1, p < .05$ ).

This test and the analyses reported subsequently are based on the relative shares of the luxury and necessity rewards, excluding respondents who indicated that they would not join either program. For example, in the car rental problem, we did not include in the analysis the 10% (in the low-program requirements version) and 14% (in the high-program requirements version) of the respondents who selected the no-choice option ("wouldn't join either program"). However, our focus here is on the effect of program requirements on the relative preference between luxury and necessity rewards, rather than on the share of respondents that choose to participate in the program (which depends on unrelated factors, such as taste heterogeneity). Nevertheless, it is noteworthy that the results support our hypotheses also when the no-choice option is included and the tests are based on the absolute choice shares; however, at very high-effort requirements, it is expected that the no-choice option will decrease the absolute choice shares of all other options (though luxury rewards are still expected to gain share compared with necessity rewards).

In the frequent Macy's shopper program, when program requirements were relatively low (i.e., \$1,000 of purchases), the choice share of the program offering the luxury reward was 34% (50 of 149 respondents). However, when program requirements were high (\$2,000), the choice share of the program offering the luxury reward increased to 45% (65 of 145 respondents). This increase is statistically significant and consistent with  $H_1$  ( $\chi^2 = 3.9, p < .05$ ).

Overall, the results of the two studies support  $H_1$ , indicating that higher program requirements shift consumers' preferences in favor of FPs that offer luxury rather than necessity rewards. Next, we describe studies that are designed to test  $H_1$  by examining the effect of program requirements on the likelihood of joining FPs that offer either luxury or necessity rewards.

#### *Tests of the Effect of Program Requirements on the Likelihood of Joining Programs That Offer Luxury or Necessity Rewards*

In the previous tests of  $H_1$ , we asked respondents to choose between two FPs. However, in many situations, the decision facing consumers is not which of two or more FPs (or rewards) to choose but whether to enroll in a particular FP that offers either a luxury or a necessity reward. Accordingly, in the following tests of  $H_1$ , we asked respondents to indicate the likelihood that they would join particular FPs, which had either high or low program requirements and offered either luxury or necessity rewards.

**Method.** Two studies tested  $H_1$  using a separate-evaluation design and the same car rental (345 respondents) and Macy's store (364 respondents) FPs discussed previ-

ously.<sup>2</sup> In each study, respondents evaluated one of four versions of the FP, in a 2 (program requirements: low versus high)  $\times$  2 (reward type: luxury versus necessity) between-subjects design. They were then asked to rate the likelihood that they would join the program, compared with typical other programs with which they were familiar. Ratings were made on an 11-point scale ranging from "very unlikely to join" (0) to "very likely to join" (10).

**Results.** When the car rental FP offered the luxury reward, increasing program requirements from 10 to 20 car rentals did not have a significant effect on the reported likelihood of joining the program ( $\bar{X} = 2.9$  versus  $\bar{X} = 3.3$ ,  $t = .8$ ; degrees of freedom [d.f.] = 173;  $p > .1$ ). However, when the FP offered the necessity reward, increasing program requirements from 10 to 20 car rentals led to a significantly lower reported likelihood of joining the program ( $\bar{X} = 4.2$  versus  $\bar{X} = 3.1$ ,  $t = 2.1$ ; d.f. = 168;  $p < .05$ ). The interaction between reward type and program requirements was statistically significant and in the hypothesized direction ( $F = 4.2$ , d.f. = 1;  $p < .05$ ). That is, consistent with  $H_1$ , higher program requirements had a positive effect on the relative preference for the luxury versus the necessity reward.

Similarly, when the Macy's program offered the luxury reward, increasing program requirements from \$1,000 to \$3,000 did not have a significant effect on the reported likelihood of joining the program ( $\bar{X} = 3.6$  versus  $\bar{X} = 3.4$ ,  $t = .4$ ; d.f. = 180;  $p > .1$ ). However, when the program offered the necessity reward, increasing program requirements led to a significantly lower reported likelihood of joining the program ( $\bar{X} = 4.5$  versus  $\bar{X} = 3.0$ ,  $t = 2.9$ ; d.f. = 180;  $p < .01$ ). The interaction between reward type and program requirements was marginally significant and in the direction predicted by  $H_1$  ( $F = 3.4$ , d.f. = 1;  $p < .07$ ).

**Discussion.** Using both choices between FPs and evaluations of individual FPs, the results support  $H_1$  and indicate that increasing program requirements enhances the relative preference for luxury compared with necessity rewards. The studies presented so far, however, did not test directly the theoretical explanation we proposed. Specifically, we argued that the effect of the level of effort on preferences between luxury and necessity rewards reflects consumers' need to justify and alleviate the guilt inherent in choosing nonessential over essential items. Next, we describe studies that address more directly the mechanism underlying the impact of program requirements on reward preferences. Specifically, we test whether the impact of program requirements on the preferred reward is more pronounced among consumers who are more inclined to feel guilty about luxury consumption. We also examine the theoretical explanation by testing whether the effect of program requirements on the preferred reward is moderated by whether the effort involves work as opposed to pleasure.

#### *Higher Program Requirements and Choice of Luxuries: The Role of Guilt and Effort Type*

We predicted the effect of program requirements on preference for luxury rewards on the basis of the notion that

<sup>2</sup>In the frequent Macy's shopper program, there was a minor variation in the level of high program requirements (compared with the value used in the choice study; see Figure 1). Specifically, the level of high program requirements was the accumulation of \$3,000 (rather than \$2,000) of purchases at Macy's.



higher effort serves as a guilt-reducing justification for choosing luxuries over necessities. This account implies that consumers who are more predisposed to feeling guilt when consuming luxuries should be particularly sensitive to the level of effort when considering alternative FP rewards. Specifically, we expect that the preference shift in favor of luxury rewards when the perceived effort is higher should be more pronounced for those for whom luxury consumption elicits guilt feelings. Therefore,

H<sub>2</sub>: Higher program requirements will have a stronger positive effect on preference for luxury over necessity rewards for consumers with a higher tendency to feel guilt when purchasing luxuries (than for consumers with a lower tendency to feel guilt when purchasing luxuries).

Consistent with the idea that a person deserves the "good life" only after hard work (e.g., Weber 1998), investing relatively high consumption efforts to obtain a reward serves as a compelling justification for choosing luxuries. However, when more "work" (in the present context, higher effort involved in complying with an FP) involves pleasure, it is likely to be less effective in reducing the guilt associated with choosing luxuries over necessities and therefore have a weaker effect on FP reward preferences. Accordingly, we expect that higher program requirements will have a stronger positive effect on the relative share of luxury rewards when consumption is related to work rather than to pleasure.<sup>3</sup> This leads to two related hypotheses:

<sup>3</sup>The idea that led to this test was proposed by George Loewenstein.

H<sub>3</sub>: Consumers will be more likely to prefer luxury over necessity rewards when they are rewarded for purchasing products or services for work-related reasons than when they are rewarded for purchasing the same products or services for pleasure-related reasons.

H<sub>4</sub>: The positive effect of program requirements on the preference for luxury over necessity rewards will be stronger for work-related consumption effort than for pleasure-related consumption effort.

We examined H<sub>2</sub>–H<sub>4</sub> in the following series of studies. We begin with tests of the moderating effect of consumers' predisposition to feel guilt about choosing luxuries.

#### *Luxury Guilt as a Moderator of the Effect of Program Requirements on Preferred Rewards*

**Method.** A total of 117 respondents were randomly assigned to low- (12 purchases) or high- (24 purchases) program requirement levels related to an online FP. For reasons discussed subsequently, respondents were first asked to list one luxury item and one necessity item (both with a retail value of approximately \$50) that they would like to receive as a reward (see Figure 2). They received definitions of luxury and necessity products and services that were adopted with minor adjustments from Strahilevitz and Myers (1998). After listing the two rewards, respondents considered an online FP, which offered a choice between the two rewards they had listed earlier (they also had the option of not joining the program).

After making a choice in the online FP scenario, respondents received three pages with "filler" problems from unrelated studies. Finally, respondents were asked to rate whether they tended to feel guilty when considering "spend-

Figure 2

#### FREQUENCY PROGRAM IN WHICH RESPONDENTS DEFINE THEIR OWN LUXURY AND NECESSITY REWARDS

##### *Rewards: Part I*

1. Please think of one luxury product or service that you would like to receive as a reward. The retail value of this luxury product or service should be approximately \$50. This luxury product or service should be pleasurable but not really necessary; something fun, experiential, and perhaps even "decadent." Purchasing such a luxury product or service for oneself may sometimes bring on feelings of guilt, and this "acquisition guilt" may diminish the pleasure of consumption. List the luxury reward you thought about in the box labeled "Reward A" (bottom left).
2. Please think of one necessary product or service that you would like to receive as a reward. The retail value of this necessary product or service should be approximately \$50. This necessary product or service should be practical; something which one ordinarily buys to carry out a necessary function or task in one's life. No guilt is associated with purchasing such a necessary product or service, and relatively little pleasure is associated with its consumption. List the necessity reward you thought about in the box labeled "Reward B" (bottom right).

##### Reward A

Enter the luxury reward you thought about in this box:

##### Reward B

Enter the necessity reward you thought about in this box:

##### *Frequent Online Shopper: Part II*

Now, please imagine that an online (Internet) frequency program offers rewards for shopping online (over the Internet). According to this program, you earn a reward after making twelve [twenty-four] online purchases (each purchase must be over \$15). The program offers a choice between the two rewards you listed above (Reward A and Reward B).

Circle the reward you prefer to earn when you reach the required twelve [twenty-four] online purchases:

A    B    Wouldn't join either program

Table 1  
LUXURY AND NECESSITY REWARDS LISTED BY  
RESPONDENTS

Rewards Listed as Luxuries	Frequency	Proportion
Massage/spa package	42	31%
Wine or liquor	22	16%
Vouchers for designer clothes, wallets, and sunglasses	12	9%
Jewelry/watch	9	7%
Gourmet foods, (e.g., chocolate, salmon, deluxe cheese)	8	6%
Restaurant	8	6%
Golf lesson or equipment	7	5%
Perfume	5	4%
Tickets to entertainment or outdoor events	5	4%
Facial	6	4%
Music compact discs and movie digital versatile discs	3	2%
Credit toward vacation	3	2%
Plane upgrade	2	1%
Other (e.g., flowers)	4	3%
Rewards Listed as Necessities	Frequency	Proportion
Vouchers for groceries	48	35%
Necessary merchandise (e.g., vacuum cleaner, calculator)	24	18%
Vouchers for gasoline	21	15%
Basic clothes	12	9%
Free train and bus rides, discount on plane tickets	9	7%
Credit toward telephone bills	5	4%
Cash back and money for bills	4	3%
Dry cleaning	4	3%
Car tune-up/oil change	4	3%
Other (e.g., medicine)	5	3%

ing money on luxurious products and services that are pleasurable but not really necessary." Ratings were made on a seven-point scale ranging from "never" (1) to "always" (7).

**Results.** An analysis of the rewards listed by respondents (see also Table 1) reveals that the three luxury rewards (valued at \$50) mentioned most frequently were massage or spa package (31% of respondents), wine or liquor (16%), and vouchers for designer clothes/wallets (9%). The three necessity rewards mentioned most frequently were grocery vouchers (35%); items such as vacuum cleaners, suitcases, and calculators (18%); and gasoline vouchers (15%). It is noteworthy that these rewards were used in several of the studies we conducted and that none of the respondents listed a reward used in our studies as the opposite type of reward.

Consistent with the prior studies, the relative choice share of the luxury reward was higher in the high-program

requirements (73%) than in the low-program requirements (51%) condition ( $\chi^2 = 5.2, p < .05$ ).<sup>4</sup> We used a logistic regression to test H<sub>2</sub>, which predicts that the positive effect of program requirements on the choice share of the luxury reward will be stronger for respondents with a greater tendency to feel guilty when considering luxuries. The (dummy) dependent variable received a value of 1 if the luxury reward was chosen. The independent variables included the program requirement level (12 or 24 online purchases), guilt rating (on a continuous seven-point scale), and the interaction of the guilt rating and requirements level. As shown in Table 2, the interaction between guilt and the level of program requirements was statistically significant and in the hypothesized direction ( $\chi^2 = 4.7, p < .05$ ).<sup>5</sup> That is, consistent with H<sub>2</sub>, higher program requirements had a stronger positive effect on the preference for luxury over necessity rewards for respondents with a higher tendency to feel guilty when purchasing luxuries. In addition, we classified respondents into two groups, high and low guilt, on the basis of a median split of their guilt scores (the mean and standard deviation [S.D.] of guilt ratings in the high- versus low-guilt groups were 5.2 [S.D. = .89] versus 2.1 [S.D. = .83], respectively). Consistent with H<sub>2</sub>, the positive effect of program requirements on the choice share of the luxury reward was significantly stronger for high-guilt respondents. Specifically, greater program requirements increased the share of the luxury reward by 28% in the high-guilt group, compared with an increase of only 12% in the low-guilt group.

In summary, consistent with the guilt-based account of the effect of effort level on reward preferences, the results indicate that the impact of program requirements on preferred rewards is significantly stronger among respondents who tend to feel guilty when spending money on luxuries. Note that unlike the main effect of feeling guilty about luxury consumption on the likelihood of choosing luxuries, the observed interaction between the program requirements level and guilt cannot be explained on the basis of other factors such as income. Furthermore, given that the guilt ratings were separated from the online FP choice by three pages with filler problems, it is highly unlikely that demand effects and/or a desire to appear consistent can explain the interaction between guilt and program requirements. Next, we fur-

<sup>4</sup>The analyses were performed only on the 106 subjects who provided all required responses, including the listing of self-generated luxury and necessity rewards, choice, and guilt rating.

<sup>5</sup>Wald  $\chi^2$  is the statistical test used in logistic regressions throughout the article.

Table 2  
RESULTS OF LOGISTIC REGRESSION IN ONLINE FP

	B	S.E.	Wald	d.f.	Significance	Exp(B)
Program requirements <sup>a</sup>	1.222	1.062	1.326	1	.249	3.395
Guilt <sup>a</sup>	.258	.205	1.574	1	.210	1.294
Program requirements × Guilt <sup>a</sup>	-.563	.261	4.666	1	.031	.569
Constant	.008	.806	.000	1	.992	1.008

<sup>a</sup>Variables entered in Step 1.

Notes: Low versus high program requirements were coded as 1 and 0, respectively.

ther examine the role of luxury guilt and test  $H_3$  and  $H_4$ , which predict that pleasurable effort has a weaker effect than work-related effort on preferences for luxury rewards.

*The Impact of Pleasure- Versus Work-Related Efforts on Preference Between Luxuries and Necessities ( $H_3$  and  $H_4$ )*

We tested  $H_3$  and  $H_4$  in two studies. In the first study, we manipulated the type of consumption effort (i.e., work versus pleasure related) and examined the interaction between the type and level of effort. In the second study, we measured whether respondents tended to engage in the consumption efforts in question (i.e., staying at hotels) in the context of work or pleasure and again tested the interaction between the type and level of effort with respect to preferences between luxury and necessity rewards.

**Method.** In the first study, 389 respondents were randomly assigned to one of four conditions in a 2 (program requirements: low versus high)  $\times$  2 (effort type: work versus pleasure) between-subjects design. Specifically, respondents considered the car rental FP described previously and were asked to assume that they typically rented cars from this company for work-related or pleasure-related travel (between-subjects). Respondents were asked to choose between two alternative rewards (shown in Figure 1). With respect to the second (between-subjects) factor, the magnitude of program requirements was renting a car either 10 (low) or 20 (high) times. Respondents were also given the option of not joining the program.

After indicating their choice in the car rental FP scenario, respondents received other filler problems from unrelated studies. Then, at the end of the questionnaire, respondents were asked to rate whether they tended to feel guilty when spending money on pleasurable luxuries (using the seven-point guilt scale described previously). Finally, respondents were asked to indicate their income level.

In the second study (with 273 respondents), the type of consumption effort was not manipulated, rather measured. Respondents were randomly assigned to one of two conditions, representing the two levels of program require-

ments. The respondents considered a hotel FP (see Figure 3), which offered a choice between a luxury reward (a bottle of red wine) and a necessity reward (a prepaid fuel card). The magnitude of program requirements was manipulated between subjects, with either four- or eight-night stays. Respondents could also choose not to join the program.

After respondents made a choice in the hotel FP scenario, they were asked (on a different page of the questionnaire) to rate whether their hotel stays tended to be for work or for pleasure. These ratings were made on a 15-point scale ranging from (1) "all of my hotel stays are work related" to (15) "all of my hotel stays are pleasure related." Respondents also rated the degree to which they or their employer typically paid for their hotel stays, using a 15-point scale ranging from (1) "I pay for all of my hotel stays" to (15) "my employer pays for all of my hotel stays." Respondents then received other filler problems from unrelated studies. At the end of the questionnaire, respondents were asked to rate their tendency to feel guilt when spending money on luxuries and to indicate their income level.

**Results.**<sup>6</sup> In the car rental problem, the main effect of the type of effort (work versus pleasure) on preferred rewards was not significant ( $\chi^2 = .5, p > .1$ ), and thus  $H_3$  was not supported in this study. Pooling across the level of program requirements, the relative choice share of the luxury reward was not higher when respondents were told to assume that they typically rented cars for work-related travel than when they were told that they typically rented cars for pleasure-related travel (32% [56 of 175] versus 37% [62 of 169], respectively).

However, consistent with  $H_4$ , the interaction between the type of efforts and program requirements was significant and in the hypothesized direction ( $\chi^2 = 4.0, p < .05$ ). In particular, when respondents were told to assume that they typically rented cars for work-related travel, higher program

<sup>6</sup>There were no significant differences in the magnitude and direction of effects when respondents' income levels were included as a covariate in the various analyses (in both the car rental and hotel FPs).

Figure 3

TESTING THE IMPACT OF DIFFERENT TYPES OF EFFORT BY MEASURING WORK- VERSUS PLEASURE-RELATED CONSUMPTION

*Frequent Hotel Guest*

Imagine that your favorite hotel chain offers a choice between the following two rewards:

**Reward A:** After you stay 4 [8] nights (not necessarily on one occasion) at the chain's hotels, you will earn a stellar bottle of red wine (retail value = \$50).

1997 Morey-Saint-Denis, "Les Ruchots," Arlaud: Grand Cru flavors in a Premier Cru red Burgundy from one of the best Côte de Nuits villages made by a great producer from a top vineyard.



**Reward B:** After you stay 4 [8] nights (not necessarily on one occasion) at the chain's hotels, you will earn a \$50 prepaid fuel card (valid at all major gasoline chains).



Fuel up fast with these convenient cards!

Circle the program you would prefer to join:

A B Wouldn't join either program



requirements increased the relative share of the luxury reward from 27% (24 of 89) in the low-program requirements condition to 37% (32 of 86) in the high-program requirements condition. Conversely, when respondents were told to assume that they typically rented cars for pleasure-related travel, higher program requirements decreased the relative share of the luxury reward from 42% (36 of 85) in the low-program requirements condition to 32% (27 of 84) in the high-program requirements condition. In addition, although this was not the main purpose of the car rental FP scenario, this study also enables us to retest  $H_2$  regarding the moderating role of the tendency to feel guilty about acquiring and consuming luxuries. Consistent with  $H_2$ , the interaction of program requirements and guilt was significant and in the hypothesized direction ( $\chi^2 = 6.5, p < .02$ ), which indicated that the positive effect of program requirements on the relative choice share of the luxury reward was stronger for high-guilt respondents.

To analyze the results of the hotel FP scenario, respondents were divided into two groups on the basis of a median split of their scores on the question whether their hotel stays tended to be for work or for pleasure. Consistent with  $H_3$ , there was a significant main effect for the type of effort ( $\chi^2 = 20.9, p < .001$ ). In particular, pooling across the level of program requirements, the relative choice share of the luxury reward was higher for respondents who tended to stay at hotels for work-related reasons than for respondents who tended to stay at hotels for pleasure-related reasons (33% [51 of 155] versus 10% [10 of 100], respectively). This result cannot be explained as reflecting an income effect or the impact of the party paying for the hotel stays (i.e., the consumers or their employers), because including in the analysis income level and the measure of who typically pays for respondents' hotel stays did not attenuate the main effect of effort type.

Consistent with  $H_4$ , the interaction between the type of efforts and program requirements was significant and in the hypothesized direction ( $\chi^2 = 5.1, p < .05$ ). In particular, for respondents who indicated that they tended to stay at hotels for work, greater program requirements increased the relative share of the luxury reward from 24% (19 of 78) in the low-program requirements condition to 42% (32 of 77) in the high-program requirements condition. Conversely, for respondents who indicated that they tended to stay at hotels for pleasure, greater program requirements had no effect on the relative share of the luxury reward (11% in the low-program requirements condition compared with 9% in the high-program requirements condition). Again, this interaction was also statistically significant when the model included the respondents' income level and the measure of who typically pays for hotel stays. That is, although the measure of who typically pays for hotel stays was significantly correlated ( $r = -.67$ ) with the type of hotel stay (work versus pleasure), even after the former measure was included in the logistic regression, both the interaction of the type of efforts with program requirements and the main effect of the type of efforts remained statistically significant ( $\chi^2 = 3.7, p = .05$  and  $\chi^2 = 11.1, p < .001$ , respectively). Finally, a logistic regression based on respondents' raw guilt scores again showed that, consistent with  $H_2$ , the positive effect of program requirements on the relative choice share of the luxury reward was stronger for high-guilt respondents

( $\chi^2 = 4.0, p < .05$ ). In addition, pooling across the type of effort and respondents' guilt ratings, there was a significant main effect of program requirements on the relative share of the luxury reward in the direction predicted by  $H_1$  (18% versus 30%;  $\chi^2 = 4.4, p < .05$ ).

#### *The Role of Effort Type and Luxury Guilt: Discussion*

Using two quite different methodologies, we demonstrated that the positive effect of higher required effort on preference for luxury rewards is weaker for pleasure-related effort than for work-related effort. The two methods have different strengths and weaknesses. A manipulation of the effort type has the advantage of minimizing the risk of confounding effects due to unobservable differences between experimental groups. However, this approach assumes that respondents adopt their assigned role (e.g., "your hotel stays are work/pleasure related") and behave as they would if that was indeed the case. The second approach, based on measurement of the respondents' "state" (i.e., whether they usually stay at hotels for work or pleasure), is less intrusive and does not require the respondents to adopt roles that may or may not reflect reality. And although the respondents' state is measured rather than manipulated, as we showed, income cannot account for the finding that, compared with work-related effort, pleasure-related effort has a weaker positive effect on preference for luxury rewards.

The results are also consistent with the finding (replicated in the work-pleasure studies) that the effect of higher effort on preference for luxuries is most pronounced for consumers who tend to feel guilt when spending money on luxuries. Thus, the evidence provides strong support for our basic proposition that the impact of program requirements on reward preferences is driven by the effect of effort on guilt. Next, we examine an alternative explanation for the effect of program requirements on preferences for luxury versus necessity rewards.

#### *A SIGNALING-BASED ALTERNATIVE EXPLANATION FOR THE EFFECT OF PROGRAM REQUIREMENTS ON REWARD PREFERENCE*

Although the results presented so far support the guilt-based explanation of the observed effect of higher program requirements on preference for luxury rewards, there is an alternative account (hereafter, the "signaling" account) that needs to be examined. A great deal of research has shown that higher cost (e.g., higher price) sometimes signals higher quality or value (e.g., Zeithaml 1988). Furthermore, it might be argued that luxury items (e.g., a massage) are associated with greater value uncertainty than are necessity items (e.g., gasoline). It is therefore possible that higher program requirements have greater impact on the perceived value of luxury than do necessity rewards, which could account for the positive impact of higher FP requirements on preference for luxury rewards. This account cannot explain the findings regarding the role of guilt and the differential impact of requirements that are associated with work versus pleasure. Furthermore, in each case, we provided the retail value of both the luxury and necessity rewards, which should reduce the uncertainty about their values. Still, we wanted to investigate more directly the notion that the effect of program requirements on reward preference is due to the differential signaling effect of the requirements level on the perceived

value of luxury compared with necessity rewards. Accordingly, we conducted the following tests of this account: (1) We asked respondents to suggest luxury and necessity items of a particular value and then gave them a choice between the two, assuming that they can be obtained as rewards for participation in an FP that requires either low or high effort; (2) we replaced the manipulation of program requirements with a manipulation/measurement of the effort for the individual participant (e.g., based on distance from the store or the consumer's purchase frequency); and (3) instead of increasing the effort required for fulfilling the FP requirements, we raised the monetary cost of enrolling in the program. We next describe the reasoning underlying these tests and the studies conducted.

#### *A Test of the Signaling Account Using Rewards Proposed by Respondents*

One way to reduce any (asymmetric) uncertainty about the perceived value of luxury and necessity rewards is by asking respondents to propose the luxury and necessity items of a particular value (e.g., "both rewards should cost \$50") and then giving them a choice between the two items they indicated (with the standard program requirements manipulation). With this procedure, the signaling-based account cannot easily explain a finding that higher program requirements enhance preference for luxury rewards. Asking respondents to suggest the luxury and necessity rewards has additional benefits: (1) It reduces any "noise" resulting from taste heterogeneity (e.g., some respondents do not like massages regardless of the level of program requirements), and (2) it reduces any ambiguity as to whether the obtained results regarding the effect of program requirements on reward preference is due to the luxury and necessity nature of the rewards rather than some other characteristic of these rewards. In addition, although there is little doubt that gasoline or supermarket purchases are perceived by most people as more necessary than a massage or an expensive bottle of wine, asking respondents to list luxury and necessity rewards (using the provided definitions) can validate the classification of items as representing luxury or necessity.

Previously, we described the study in which respondents listed luxury and necessity items of a certain value and later chose between the rewards that they themselves had listed. As shown previously, contrary to the value signaling account, the results again showed that higher program requirements shifted preferences in favor of luxury rewards. Also, the results confirmed that the items we have used to represent luxury and necessity rewards were perceived as such by consumers.

#### *The Effect of the Difficulty in Complying with Program Requirements on Preferences Between Luxury and Necessity Rewards*

According to the signaling account, program requirements have a differential impact on the perceived value of luxury and necessity rewards. This explanation suggests that unlike raising the stated program requirements, a higher idiosyncratic effort for an individual consumer should not affect the perceived value of rewards and, consequently, should not lead to a shift in preferred rewards. Indeed, there is no logical reason to believe that the value of the reward is

higher just because complying with program requirements happens to be more difficult for an individual consumer (e.g., because he or she lives far from the gas station or makes infrequent purchases). Conversely, the guilt-based account suggests that higher individual effort, similar to higher program requirements, will enhance the relative preference for luxury rewards. That is, when complying with program requirements is more difficult for the consumer, it becomes easier to justify choosing luxury over necessity rewards.

This prediction was investigated in two studies that, in addition to testing the effect of program requirements ( $H_1$ ), examined whether higher effort for an individual consumer (the stated program requirement being held constant) shifts preferences toward luxury rewards. In the first study, we manipulated the level of difficulty in complying with the program requirements by varying the individual distance from a store offering an FP. In the second study, we measured the level of difficulty based on the individual consumer's purchase frequency.

*Method.* In the first study, 351 respondents were randomly assigned to one of four conditions in a 2 (program requirements: low versus high)  $\times$  2 (difficulty of complying with program requirements: low versus high) between-subjects design. In all four conditions, respondents were asked to choose between two alternative loyalty programs offered by a department store (see Figure 4). Within the same experimental condition, the two alternative programs were identical in all aspects, except that one program offered a luxury reward (i.e., a Hawaiian vacation package with retail value of \$1,200), and the other program offered a necessity reward (i.e., \$1,200 of credit toward gasoline purchases). Respondents could also choose not to join any program. The difficulty of complying with program requirements was manipulated by varying the store's distance from the respondent's house. Specifically, respondents were told that the department store was located either close to their house and they shopped there regularly (low difficulty) or 25 miles from their house (high difficulty). The amount of program requirements involved accumulating either \$2,500 or \$5,000 of purchases at the department store.

In the second study, the level of individual difficulty in complying with program requirements was not manipulated but rather measured. Of the 187 study participants, 52 respondents were not included in the analysis (leaving 135 respondents), because these respondents indicated that they did not own a car, and therefore the necessity reward (a Jiffy Lube car service) was irrelevant for them. Respondents considered an Internet shopper FP (see Figure 5) and were asked to choose between a luxury reward and a necessity reward (respondents also had the option not to join the program). The level of program requirements was manipulated between-subjects: Participants were required to accumulate either 300 or 1500 e-points (each e-point was equivalent to one dollar spent online).

At the end of the questionnaire, respondents were asked to indicate how many times they shopped online in a typical month. As a check for the program requirement manipulation, respondents also rated the degree to which accumulating 300 e-points (or 1500 e-points) involved effort for them, using an 11-point scale ranging from "no effort at all" (0) to

Figure 4

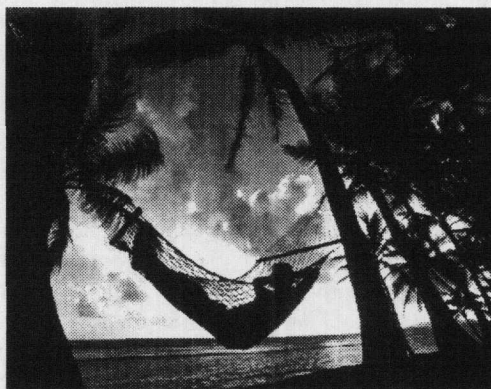
TESTING THE EFFECTS OF THE DIFFICULTY IN COMPLYING WITH PROGRAM REQUIREMENTS BY MANIPULATING STORE DISTANCE

*Department Store Program*

Imagine that your favorite department store offers a choice between the following frequency reward programs. This department store is close to your house and you shop there regularly.

[This department store is located 25 miles away from your house.]

**Program A:** After you accumulate ~~\$2,500~~ ~~[\$5,000]~~ of purchases at the department store, you will earn a 4-day/3-night vacation package for two in Hawaii, including air and ground transportation and hotel accommodations (valued at \$1,200).



**Program B:** After you accumulate ~~\$2,500~~ ~~[\$5,000]~~ of purchases at the department store, you will earn \$1,200 of credits toward free gasoline (valid at all major gasoline chains).

Circle the frequency program you would prefer to join:    A    B    Wouldn't join either program

Figure 5

TESTING THE EFFECTS OF THE DIFFICULTY IN COMPLYING WITH PROGRAM REQUIREMENTS BY MEASURING PURCHASE FREQUENCY

*Frequent Internet Shopper*

Imagine that an Internet (online) frequency program offers rewards for shopping online (over the Internet). According to this program, you earn one "e-point" for each dollar you spend shopping online. The program offers a choice between the following two rewards (participation in this program is free):

**Reward A**

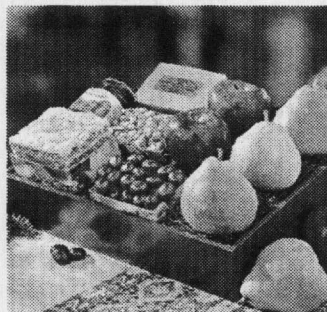
Accumulate 300 [1,500] e-points, and you will earn a Jiffy Lube Signature Service<sup>SM</sup> for your car (valued at \$30).



Jiffy Lube's Signature Service<sup>SM</sup> includes: changing the vehicle's oil with top-quality motor oil; installing a new oil filter; lubricating the chassis; checking and filling the fluids in your transmission, differential, power steering, window washer, and battery; checking the brake fluid, air filter, and wiper blades; inflating the tires to proper pressure; washing exterior windows; and vacuuming the interior.

**Reward B**

Accumulate 300 [1,500] e-points, and you will earn a Harry and David<sup>®</sup> Deluxe Banquet (valued at \$30).



Harry and David<sup>®</sup> Deluxe Banquet delivers a luxurious variety of gourmet treats. From fruits to nuts—beginning with famous quality Pears and Apples. You'll also enjoy an irresistible fair of rich Cheddar Cheese, Wild 'n Rare<sup>®</sup> Strawberry Preserves, Baklava, Honey Roasted Peanuts, and Bing Cherry Chocolates. Net wt. 3 lbs. 14 oz.

Circle the reward you prefer to receive if you reach 300 [1,500] e-points:

A    B    Wouldn't join either program

"very high effort" (10). Finally, respondents were asked to rate their tendency to feel guilt when spending money on luxuries and to indicate their income level.

*Results.* In the department store problem, consistent with the guilt-based account and contrary to the signaling account, the effect of the individual consumer's difficulty of complying with program requirements was significant and in the hypothesized direction ( $\chi^2 = 7.3, p < .01$ ; using logistic regression). Pooling across program requirements, the relative choice share of the program offering the luxury reward was 58% (74 of 128) when respondents were told that the store was located 25 miles from their house, compared with 47% (73 of 156) when the store was close.

In addition, consistent with the guilt-based account and contrary to the signaling account, the interaction between store location and stated program requirements was statistically significant ( $\chi^2 = 4.1, p < .05$ ). In particular, when respondents were told that the store was located 25 miles from their house (high difficulty), greater program requirements increased the relative share of the program offering the luxury reward from 47% (29 of 62) in the low-program requirements condition to 68% (45 of 66) in the high-program requirements condition. Conversely, when respondents were told that the store was close to their house (low difficulty), greater program requirements did not affect the relative share of the program offering the luxury reward (48% [36 of 75] versus 46% [37 of 81]). The null effect of program requirements in the low-difficulty condition may indicate that accumulating an additional \$2,500 of purchases in that condition was not perceived by respondents as a significant incremental effort. That is, when consumers shop at a nearby department store regularly, a \$2,500 difference in required spending may not reach the level at which it makes a difference.

In the Internet FP problem, respondents' effort ratings confirmed that the manipulation of program requirements affected the perceived effort in the expected direction. Specifically, increasing program requirements from 300 e-points to 1500 e-points led to significantly higher perceived effort ratings ( $\bar{X} = 6.7$  versus  $\bar{X} = 5.7, t = 1.7, d.f. = 133; p < .05$ ). Also, consistent with  $H_1$ , the relative choice share of the luxury reward was higher in the high-program requirements (51%) than in the low-program requirements (32%) condition ( $\chi^2 = 4.0, p < .05$ ).

To examine the impact of individual difficulty in complying with the program requirements, we divided respondents into two groups on the basis of a median split of the number of times they shop online in a typical month (the mean and S.D. of times shopping online per month in the high- versus low-shopping frequency groups were 4.7 [S.D. = 4.8] versus .3 [S.D. = .5], respectively). Consistent with the guilt-based account and contrary to the signaling account, the effect of the individual difficulty rating was significant and in the hypothesized direction ( $\chi^2 = 5.8, p < .02$ ; using logistic regression). Pooling across program requirements, the relative choice share of the luxury reward was 50% (28 of 56) for respondents who shop online infrequently compared with 34% (19 of 56) for respondents who shop online frequently.

Furthermore, consistent with the guilt-based account, the interaction between individual difficulty and stated program

requirements was marginally significant ( $\chi^2 = 3.5, p < .07$ ). Specifically, for respondents who shop online infrequently (high individual difficulty), greater program requirements increased the relative share of the luxury reward by 26% (from 35% in the low-program requirements condition to 61% in the high-program requirements condition). Conversely, for respondents who shop online frequently (low difficulty), greater program requirements increased the relative share of the luxury reward by only 9% (from 30% to 39%). We obtained similar results when we used the continuous measure of online purchase frequency in the logistic regression analysis as well as when we included income level as a covariate.

Finally, this study also enables us to retest  $H_2$ , regarding the moderating role of the tendency to feel guilty about acquiring and consuming luxuries. The interaction of program requirements and respondents' raw guilt scores (on a continuous seven-point scale) was significant and in the hypothesized direction ( $\chi^2 = 5.2, p < .03$ ), which indicated that the positive effect of program requirements on the relative choice share of the luxury reward was stronger for high-guilt respondents. Furthermore, respondents were classified into two groups, high and low guilt, on the basis of a median split of their guilt scores (the mean and S.D. of guilt ratings in the high- versus low-guilt groups were 5.2 [S.D. = .99] versus 1.9 [S.D. = .85], respectively). Consistent with  $H_2$ , greater program requirements increased the share of the luxury reward by 30% in the high-guilt group compared with an increase of only 6% in the low-guilt group.

Overall, the results of the department store FP and the Internet FP show that even when higher (individual) effort cannot reasonably affect the perceived value of rewards, we still observe that higher efforts enhance preference for luxury rewards. This finding provides further evidence that the signaling account does not explain the impact of program requirements on preferred rewards.

#### *The Impact of Higher Monetary Costs on Preference Between Luxuries and Necessities*

The positive effect of program requirements on preference for luxury over necessity rewards was predicted on the basis of the notion that greater consumption efforts serve as a guilt-reducing justification for earning the right to indulge in luxuries. That is, after what seems to be hard work, obtaining and consuming pleasurable luxuries evoke less guilt and are easier to justify (to others and the self). Suppose, however, that instead of raising the level of required effort, the monetary cost of joining the FP is increased. According to the signaling account, higher monetary cost should differentially affect the perceived value of luxury and necessity rewards, thus enhancing the preference for the former. That is, on the basis of the price-perceived quality relationship (e.g., Zeithaml 1988), the asymmetric signaling account predicts that increasing the monetary costs required to obtain rewards will enhance the perceived relative value of the higher variance (ambiguous) reward, presumably the luxury. Conversely, unlike working harder and expending more effort, spending more money is unlikely to reduce guilt or earn the right to indulge. Higher monetary cost might be perceived as a waste and might be difficult to justify—the more out-of-pocket costs a consumer expends for luxuries,

the fewer resources there are for obtaining necessary goods that he or she cannot do without. Thus, contrary to higher program requirements (consumption efforts), when rewards are contingent on the investment of relatively high monetary costs, consumer preference is expected to shift away from luxuries and toward necessities. Thus, the signaling and guilt-based accounts lead to conflicting predictions regarding the effect of higher monetary cost of joining an FP on preferences between luxury and necessity rewards.

*Method.* Respondents were randomly assigned to one of two conditions, representing the two levels of monetary costs (low versus high). In one study (with 185 respondents), monetary cost was operationalized through the membership fees required for consumers to join one of two alternative car rental FPs. The two programs were similar in all aspects to the car rental FPs described previously, in which greater program requirements enhanced the preference for the luxury over the necessity program (see Figure 1). The only differences were that, in the current study, the level of program requirements was held constant across all conditions (i.e., at 20 car rentals), and joining a program was not free but rather involved a membership fee of either \$1 or \$10 (manipulated between subjects).

In a follow-up study (with 227 respondents), monetary cost was operationalized through the fees required for consumers to participate in one of two alternative department store lotteries. Respondents were randomly assigned to one of two conditions, which represented the two levels of monetary costs (i.e., \$1 versus \$10 participation fee). The department store lottery problem was similar in all aspects to the department store FP described previously (shown in Figure 4), in which a higher magnitude of and difficulty in complying with program requirements increased the preference for a luxury over a necessity reward.

*Results.* In the frequent car renter program, when membership fees were low (\$1), the relative choice share of the program that offered the luxury reward was 36% (23 of 64 respondents). Conversely, when membership fees were increased to \$10, the relative choice share of the program offering the luxury reward decreased to 19% (10 of 53 respondents). This decrease is statistically significant ( $\chi^2 = 4.2, p < .05$ ).

In the department store lottery problem, when participation fee was low (\$1), the relative choice share of the program offering the luxury reward was 66% (67 of 102 respondents). However, when participation fees were increased to \$10, the relative choice share of the program that offered the luxury reward decreased to 51% (37 of 73 respondents). This decrease is statistically significant and in the hypothesized direction ( $\chi^2 = 4.0, p < .05$ ).

In summary, the results of both studies indicate that, unlike greater consumption efforts (e.g., higher program requirements), higher monetary costs of obtaining rewards (e.g., higher FP membership fees) shift preference away from luxury rewards and toward necessity rewards (for evidence on luxuries' greater price elasticity of demand, see Kemp 1998; Lipsey 1989). This pattern is inconsistent with the signaling account, whereas it is consistent with the premise that purchasing luxuries with out-of-pocket costs requires special justification (to the self and others) and may evoke guilt. That is, increasing the monetary costs of obtain-

ing rewards further diminishes the ability to justify choosing a luxury over a necessity because such a choice can now be construed as a greater waste and may accentuate feelings of guilt.

#### *The Signaling-Based Alternative Explanation: Discussion*

The evidence from several studies is inconsistent with the notion that higher program requirements enhance the preference for luxury rewards because they have greater impact on the perceived value of luxury versus necessity rewards. First, we showed that even when respondents propose their own luxury and necessity rewards (both valued at approximately \$50) and are therefore unlikely to perceive the value of the luxury reward as more uncertain, increasing program requirements enhances the preference for luxury. Second, we demonstrated that even when higher individual effort cannot asymmetrically affect the perceived value of luxury versus necessity rewards, we still observe the positive impact of effort on preference for luxuries. Third, increasing the monetary cost of obtaining rewards (through higher FP membership fees) decreases the preference for luxury over necessity rewards. This result is inconsistent with the signaling explanation because, similar to higher program requirements, higher monetary costs can serve as a quality signal. Finally, note that the observed effects of guilt and effort type (i.e., work versus pleasure related) are inconsistent with the signaling account. That is, the signaling-based alternative explanation cannot account for the results whereby program requirements had a stronger positive effect in the case of work-related consumption and for high-guilt consumers.

#### GENERAL DISCUSSION

Frequency programs have become a key component of the marketing strategies of companies in a wide variety of industries, serving a critical role in developing relationships and retaining customers. In addition, FPs raise conceptual issues regarding the impact of an effort stream and reward characteristics on consumers' evaluation of and participation in such programs. In the present research, we investigated the effect of the level of required effort on reward preferences. In this section, we briefly review the key findings and discuss their theoretical and practical implications.

#### *Main Findings and Their Theoretical Implications*

The findings indicate that higher FP requirements shift consumer preference in favor of luxury rewards. Specifically, we showed that when program requirements are higher, consumers are (1) more likely to prefer luxury over necessity rewards and (2) more likely to join an FP that offers a luxury reward. Building on prior research and analyses regarding people's and society's perceptions of necessity versus luxury consumption and the belief that necessities should be accommodated before luxuries (e.g., Berry 1994; Scitovsky 1992; Weber 1998), we proposed that the effect of program requirements on reward preferences reflects the difficulty of and need for justifying the choice of luxuries over necessities. Furthermore, given the "pain" associated with paying out-of-pocket for hedonic luxuries (e.g., Prelec and Loewenstein 1998; Thaler 1980, 1985, 1999), con-



sumers appear to be willing to "pay" in other currencies (i.e., effort) and to bear increases in such nonmonetary costs more readily for luxuries than for necessities. Moreover, consumers may believe they are more entitled to luxury goods when they earn them by exerting more effort (earning the right to indulge through hard work)—even if the effort is not labor per se, but rather purchase requirements.

The notion that higher effort helps justify and alleviate the guilt associated with choosing luxury over necessity was tested in two ways. First, the results indicate that the effect of program requirements on choices of luxuries is most pronounced among consumers who are more likely to feel guilt about luxury consumption. Second, consistent with the intuition that "effort credit" that is earned as a by-product of a pleasurable activity (e.g., staying at a hotel during vacation) is less effective in alleviating the guilt about luxury consumption than is credit earned through work, we showed that (1) higher work-related effort has a stronger positive impact than pleasure-related effort on preference for luxuries, and (2) the effect of program requirements on reward preference is stronger among consumers who usually perform the activity at issue (e.g., stay at hotels) as part of their work.

The role of guilt in moderating the effect of program requirements on reward preferences is consistent with the view of choice as based on reasons or justifications (e.g., Shafir, Simonson, and Tversky 1993). It would be more difficult to account for this effect in terms of value. That a consumer must accumulate more miles or points to obtain a reward is likely to raise expectations with respect to the magnitude or value of the reward, but there is no reason that it would change the perceived value of one reward versus another. If a relaxing massage has value higher than \$70 in supermarket coupons, the massage should be selected regardless of whether the program requirements involved 10 or 30 gasoline purchases. However, the finding that higher program requirements enhance preference for luxuries can be readily understood if we consider the difficulty of justifying choosing a luxury over a necessity. More generally, our account explains the finding that preferences between two options can be changed by raising the effort (or cost) required to obtain them. Note that such a preference structure violates the normative assumption of separability or independence (e.g., Loewenstein and Prelec 1993), which implies that the utility of rewards should not depend on the effort level.

Our results are consistent with the concept of "Puritanic reward self-gifts," which are self-indulgences justified by effortful behavior (see, e.g., Mick and DeMoss 1990). Consumers purchasing such reward self-gifts often invoke a theme of deserving and a conviction that the self-gift was earned. Indeed, FPs that enable consumers to earn luxury rewards by complying with difficult requirements may represent "authentic self-gifts [that] are a sincere personal attempt to rectify the persistent urge to say 'no' to ourselves in daily life" (Mick 1996, p. 116).

An alternative explanation for the effect of program requirements on reward preference, the signaling account, was not supported. Specifically, the notion that higher program requirements have greater impact on the perceived value of luxuries than on that of necessities was contradicted

by the following results: (1) The effect was replicated when the consumers themselves proposed luxury and necessity rewards of a prespecified value; (2) increasing the difficulty of complying with the program for an individual consumer (e.g., the store is located 25 miles rather than 1 mile away), while holding the program requirements constant, generated a similar effect on preference for luxuries; (3) increasing the monetary cost of joining the FP without changing the requirements for obtaining the reward decreased the preference for luxury rewards, consistent with the notion that higher price exacerbates the guilt associated with luxury consumption; and (4) the signaling account cannot explain the moderating role of guilt or effort type (work versus pleasure related).

The results of this research might be contrasted with studies that have examined the impact of windfall gains on consumption behavior. We have argued that FPs can serve as a compelling justification for obtaining guilt-free luxuries. Previous research indicates that another way to increase hedonic, luxury consumption without the typical pain of paying (Prelec and Loewenstein 1998) may be through windfall gains (e.g., winning a lottery). That is, resources that are perceived as windfalls are less painful to match with hedonic, luxury consumption (Arkes et al. 1996; Kivetz and Simonson 2002; O'Curry 2000; O'Curry and Strahilevitz 2000; Thaler 1985; Thaler and Johnson 1990). The coexistence of two routes for justifying luxuries, one through effort and the other through windfall gains, deserves further study. For example, further research might investigate the relations between effort- and windfall-based justifications for luxury consumption. It might also be interesting to examine the factors that moderate the weight of each mechanism, such as context and task characteristics (e.g., type of consumption, cognitive and/or motivational resources), individual differences (e.g., demographics, time perspective, religious beliefs, propensity to feel guilt), and cultural norms.

In the context of FPs, both routes to luxury consumption might be operating. On the one hand, by expending effort to comply with the program requirements, consumers earn the right to indulge with luxuries. On the other hand, FP rewards might be perceived as windfall gains, because they do not involve out-of-pocket monetary expenses (i.e., the rewards are "free"). That is, although consumers spend money on purchases to consume various products and services, the associated FP rewards are both free and a byproduct of the consumption efforts. Further research could examine whether the impact of effort on preference toward luxury and necessity rewards is moderated by whether the rewards are the primary or the secondary motivation for engaging in the activity.

The factors that moderate the relation between efforts and rewards deserve further study. One question involves the factors that determine consumers' perceptions of the magnitude of required efforts and the influence of such perceptions on preference between luxury and necessity rewards. For example, in addition to the nominal (required) effort (e.g., 20,000 miles for a free ticket) and the difficulty of complying with the program for an individual consumer, the perceived effort is likely to be influenced by the period of time within which the effort needs to be completed and

whether the consumer is allowed to switch to competing suppliers while participating in the program.

### Practical Implications

As several FP experts have argued, many programs are structured with a limited understanding of consumer preference (e.g., Kearney 1990; O'Brien and Jones 1995). Indeed, whereas some FPs have been highly successful (e.g., frequent flier programs), others have been resounding failures (see, e.g., Barlow 1999; Dowling and Uncles 1997). Although a complete understanding of the determinants of FP success requires additional study, our research provides insights regarding the matching of efforts and rewards and some of the factors that affect consumers' evaluations of alternative reward types. These findings have implications with respect to the design, targeting, and promotion of FPs.

Regarding the design of FPs, a straightforward implication of the findings is that as the level of program requirements increases, marketers should enhance the relative share of luxury rewards in their "reward mix." For example, a supermarket FP might offer \$50 in supermarket vouchers for consumers who spend a total of \$2,000, whereas consumers who spend \$20,000 would be given the option of earning a three-day trip to Las Vegas. Marketers can also offer simultaneously two or more FPs with different levels of program requirements and reward types.

A related implication is that FPs can require more effort or points for luxury rewards than for necessity rewards of the same dollar value (without highlighting the similar monetary values). Although existing FPs do not permit a rigorous test of this recommendation, there are indications that luxury rewards are particularly effective in motivating program participants. For example, the Chart House Aloha Club program rewarded customers who dined at all 64 Chart House restaurants in 21 states around the country with a trip for two around the world. However, this reward was subsequently dropped from the program because of the surprisingly high number of eligible winners (Colloquy 1997).

The finding that the relative effectiveness of luxuries (compared with necessities) in promoting participation increases when the FP requirements are high is also relevant to the debate regarding the use of cash as a reward. Currently, some companies advocate cash as the best FP reward currency (e.g., Discover Card Cashback Bonus Award, Cybergold.com, iGain.com), whereas other FPs emphasize more luxurious rewards (e.g., American Express Membership Rewards, Web-based loyalty programs such as WebMiles.com). Because necessity rewards are essentially cash equivalents, the results of our research suggest that cash will be a relatively more attractive reward when the program requirements are low, whereas the relative effectiveness of luxury rewards of equivalent or even lower value will increase when programs are highly demanding.

The findings of our research also suggest bases for segmenting customers and customizing FPs to match their individual profiles. In particular, marketers might offer customers different rewards depending on the level and type of effort that they individually would need to expend to comply with the program requirements. Thus, for example, customers for whom fulfilling the program requirements is more difficult and/or involves work rather than pleasure will

be enticed by luxury rewards more than by necessity rewards. Furthermore, if marketers can obtain, through surveys or other means, information regarding the degree to which individual customers need a special justification for choosing luxuries over necessities, the FP (i.e., the requirements and corresponding rewards) can be accordingly tailored to these consumers. Even if such information is unavailable for individual customers, it is reasonable to expect that the degree to which consumers tend to feel guilty about luxury consumption correlates with certain socio-demographic and cultural characteristics. Using such readily available segmentation information, marketers can tailor the program requirements and corresponding rewards to each group.

Finally, the findings of this research provide some general guidelines regarding the manner in which FPs can be promoted. For example, when promoting programs that offer luxury rewards, as opposed to cash or other necessities, marketers can emphasize the notion that, through their sustained efforts, participants will earn the right to indulge and fully enjoy the luxury they deserve.

In summary, this research provides some guidelines with respect to the design, targeting, and promotion of FPs—and, in particular, regarding the match between the promised reward and the level and type of required effort. However, more research is needed to further improve the understanding of customers' evaluations of FPs and the various moderators and determinants of the success or failure of such programs.

### REFERENCES

- Arkes, Hal R., Cynthia A. Joyner, Mark V. Pezzo, and Jane Gradwohl Nash (1994), "The Psychology of Windfall Gains," *Organizational Behavior and Human Decision Processes*, 59 (September), 331-47.
- Atkinson, John W. (1957), "Motivational Determinants of Risk-Taking Behavior," *Psychological Review*, 64 (November), 359-72.
- Barlow, Richard G. (1999), "Frequency Marketing in the Twenty-First Century," *Colloquy*, 7 (2).
- Berry, Christopher J. (1994), *The Idea of Luxury*. Cambridge, UK: Cambridge University Press.
- Blattberg, Robert C. and John Deighton (1996), "Manage Marketing by the Customer Equity Test," *Harvard Business Review*, 74 (July/August), 136-44.
- and Scott A. Neslin (1990), *Sales Promotion: Concepts, Methods, and Strategies*. Englewood Cliffs, NJ: Prentice Hall.
- Brehm, Jack W. and Elizabeth Self (1989), "The Intensity of Motivation," in *Annual Review of Psychology*, M.R. Rozenzweig and L.W. Porter, eds. Palo Alto, CA: Annual Reviews, 109-31.
- Chandon, Pierre, Brian Wansink, and Gilles Laurent (2000), "A Benefit Congruency Framework of Sales Promotion Effectiveness," *Journal of Marketing*, 64 (October), 65-81.
- Colloquy (1997), "Frequent-Dining Programs—Missing Some Key Ingredients," 5 (4).
- Dhar, Ravi and Itamar Simonson (1999a), "Making Complementary Choices in Consumption Episodes: Highlighting Versus Balancing," *Journal of Marketing Research*, 36 (1), 29-44.
- and ——— (1999b), "The Effect of No Choice on Choice," working paper, School of Management, Yale University.
- and Klaus Wertenbroch (2000), "Consumer Choice Between Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 37 (1), 29-44.

- Dowling, Grahame R. and Mark Uncles (1997), "Do Customer Loyalty Programs Really Work?" *Sloan Management Review*, 38 (Summer), 71-82.
- Drèze, X. and S.J. Hoch (1998), "Exploiting the Installed Base Using Cross-Merchandising and Category Destination Programs," *International Journal of Research in Marketing*, 15 (5), 459-71.
- Heath, Chip and Jack B. Soll (1996), "Mental Budgeting and Consumer Decisions," *Journal of Consumer Research*, 23 (June), 40-52.
- Hilgard, Ernest R. and Gordon H. Bower (1975), *Theories of Learning*, 4th ed. Englewood Cliffs, NJ: Prentice Hall.
- Hirschman, Elizabeth C. and Morris B. Holbrook (1982), "Hedonic Consumption: Emerging Concepts, Methods, and Propositions," *Journal of Marketing*, 46 (3), 92-101.
- Hsee, Christopher K. (2000), "Myopic Maximization: Medium Effect in Decision-Making," working paper, Graduate School of Business, University of Chicago.
- and France Leclerc (1998), "Will Products Look More Attractive When Presented Separately or Together?" *Journal of Consumer Research*, 25 (September), 175-86.
- Kearney, Terrence J. (1990), "Frequent Flyer Programs: A Failure in Competitive Strategy, with Lessons for Management," *Journal of Consumer Marketing*, 7 (1), 31-40.
- Kemp, Simon (1998), "Perceiving Luxury and Necessity," *Journal of Economic Psychology*, 19 (5), 591-606.
- Kivetz, Ran (1999), "Advances in Research on Mental Accounting and Reason-Based Choice," *Marketing Letters*, 10 (3), 249-66.
- and Itamar Simonson (2001), "The Role of Idiosyncratic Fit and Effort in Preferences Toward Loyalty Programs," working paper, Graduate School of Business, Columbia University.
- and ——— (2002), "Self Control for the Righteous: Toward a Theory of Pre-commitment to Indulgence," *Journal of Consumer Research*, 29 (September), (forthcoming).
- Kopalle, Praveen K., Scott A. Neslin, and Medini Singh (1999), "The Economic Viability of Frequency Reward Programs in a Strategic Competitive Environment," working paper, Tuck School of Business, Dartmouth College.
- Lascu, Dana N. (1991), "Consumer Guilt: Examining the Potential of a New Marketing Construct," in *Advances in Consumer Research*, Vol. 18, Rebecca Holman and Michael Solomon, eds. Provo, UT: Association for Consumer Research, 290-93.
- Latham, Gary P. and Edwin A. Locke (1991), "Self Regulation Through Goal Setting," *Organizational Behavior and Human Decision Processes*, 50 (2), 212-47.
- Lepper, Mark R. (1981), "Intrinsic and Extrinsic Motivation in Children: Detrimental Effects of Superfluous Social Controls," in *Aspects of the Development of Competence: The Minnesota Symposium on Child Psychology*, Vol. 14, W.A. Collins, ed. Hillsdale, NJ: Lawrence Erlbaum Associates, 155-214.
- Lipsey, Richard G. (1989), *An Introduction to Positive Economics*, 7th ed. London: Weidenfeld and Nicolson.
- Loewenstein, George and Drazen Prelec (1993), "Preferences for Sequences of Outcomes," *Psychological Review*, 100 (1), 91-108.
- Maslow, Abraham H. (1970), *Motivation and Personality*, 2d ed. New York: Harper and Row.
- Mick, David Glen (1996), "Self-Gifts," in *Gift Giving: A Research Anthology*, Cele Otnes and Richard F. Beltramini, eds. Bowling Green, OH: Bowling Green State University Popular Press, 99-120.
- and Michelle DeMoss (1990), "Self-Gifts: Phenomenological Insights from Four Contexts," *Journal of Consumer Research*, 17 (December), 322-32.
- Mischel, Walter, Nancy Cantor, and Scott Feldman (1996), "Principles of Self-Regulation: The Nature of Willpower and Self-Control," in *Social Psychology: Handbook of Basic Principles*, E.T. Higgins and A. Kruglanski, eds. New York: Guilford Press, 329-60.
- Nicholls, John G. (1989), *The Competitive Ethos and Democratic Education*. Cambridge, MA: Harvard University Press.
- Nowlis, Stephan M. and Itamar Simonson (1997), "Attribute-Task Compatibility as a Determinant of Consumer Preference Reversals," *Journal of Marketing Research*, 34 (May), 205-18.
- O'Brien, Louise and Charles Jones (1995), "Do Rewards Really Create Loyalty?" *Harvard Business Review*, 73 (May/June), 75-82.
- O'Curry, Suzanne (2000), "Consumer Budgeting and Mental Accounting," *Elgar Companion to Consumer Economics and Economic Psychology*, (forthcoming).
- and Michal Strahilevitz (2001), "Probability and Mode of Acquisition Effects on Choices Between Hedonic and Utilitarian Options," *Marketing Letters*, 12 (February), 37-49.
- Orr, A. (1995), "Customers for Life!" *Target Marketing*, 18 (March), 20.
- Prelec, Drazen and Richard J. Herrnstein (1991), "Preferences or Principles: Alternative Guidelines for Choice," in *Strategy and Choice*, Richard J. Zeckhauser, eds. Cambridge, MA: MIT Press, 319-40.
- and George Loewenstein (1998), "The Red and the Black: Mental Accounting of Savings and Debt," *Marketing Science*, 17 (1), 4-28.
- Raphel, Neil (1998), "The Future of Loyalty Marketing," *Supermarket Business*, 53 (April), 23-30.
- Rose, Robert L. (1988), "Frequent-Flyer Plans Become Obsessions," *The Wall Street Journal*, (September 6), B1.
- Schneiderman, Ira P. (1998), "Frequent Shopper Reward Programs Starting to Fly High," *Daily News Record*, (March 30).
- Scitovsky, Tibor (1992), *The Joyless Economy*, rev. ed. New York: Oxford University Press.
- Shafir, Eldar, Itamar Simonson, and Amos Tversky (1993), "Reason-Based Choice," *Cognition*, 49 (1/2), 11-36.
- Soman, D. (1998), "The Illusion of Delayed Incentives: Evaluating Future Effort-Money Transactions," *Journal of Marketing Research*, 35 (November), 427-37.
- Strahilevitz, Michal and John G. Myers (1998), "Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell," *Journal of Consumer Research*, 24 (4), 434-46.
- Thaler, Richard H. (1980), "Toward a Positive Theory of Consumer Choice," *Journal of Economic Behavior and Organization*, 1, 39-60.
- (1985), "Mental Accounting and Consumer Choice," *Marketing Science*, 4 (3), 199-214.
- (1999), "Mental Accounting Matters," in *Choices, Values, and Frames*, D. Kahneman and A. Tversky, eds. Cambridge, UK: Cambridge University Press, 241-68.
- and Eric J. Johnson (1990), "Gambling with the House Money and Trying to Break Even: The Effects of Prior Outcomes on Risky Choice," *Management Science*, 36 (June), 643-60.
- Weber, M. (1998), *The Protestant Ethic and the Spirit of Capitalism*, 2d ed. Los Angeles: Roxbury.
- Zeithaml, Valarie A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," *Journal of Marketing*, 52 (3), 2-22.