INSTITUTE FOR SOCIAL AND ECONOMIC RESEARCH AND POLICY
COLUMBIA UNIVERSITY
WORKING PAPERS

SELF CONTROL FOR THE RIGHTEOUS: TOWARD A THEORY OF LUXURY PRE-COMMITMENT

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August 2001

ISERP WORKING PAPER 01-06

ISERP
Institute for Social and Economic Research and Policy

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Abstract

Prior research has examined consumers' use of self-control to avoid hedonic (myopic) temptations, such as overbuying and smoking. We propose that consumers often exercise the opposite form of self-control, whereby they attempt to avoid default forms of spending on necessities and savings in favor of luxury, hedonic purchases. In particular, given the difficulty of choosing hedonic luxury items over necessities and cash in everyday (local) decisions, under certain conditions, consumers pre-commit to hedonic luxury consumption. Such pre-commitments to hedonic luxuries are more likely to occur when their psychological cost is less concrete. These propositions were tested in a series of studies involving real and hypothetical choices as well as process measures. The results indicate that a substantial segment of consumers choose hedonic luxury prizes over cash of equal or greater value; most of these consumers explain such choices as motivated by the need to pre-commit in order to guarantee a hedonic luxury experience and that the award does not end up in the pool of money used for necessities. In addition, consistent with our analysis, the likelihood of pre-committing to hedonic luxuries is enhanced when (a) the consequences of the decision will be realized farther in the future, (b) the odds of winning the reward are lower, and (c) consumers anticipate how they will use each possible award. We also show that hedonic luxury awards are more effective than cash as incentives for participation in a (real) lottery. The theoretical and practical implications of the results are discussed.

Keywords: decision making; choice; self-control; luxuries and necessities; intertemporal preferences

"It is largely our narrow, individual rationality that makes us miss part of the fun others get out of life."

The Joyless Economy, Tibor Scitovsky (1992)

"Your budget allows for living expenses, but does it allow for living?"

From Citibank's "Live Richly" ad campaign (2001)

A fundamental tradeoff that consumers must often make is between spending money on (what they perceive as) necessities, such as savings, ordinary food, and medical care, or on luxuries, such as an expensive watch, a cruise, and fancy food. Necessities can be defined as "items that cannot be done without; things that must be had for the preservation and reasonable enjoyment of life; essentials," whereas luxuries are "non-essential items or services that contribute to luxurious living; an indulgence or convenience beyond the indispensable minimum" (Webster's Third New International Dictionary 1986). A great deal of prior research has examined consumers' use of self-control to avoid luxuries and other hedonic temptations, such as overbuying, smoking, and eating tasty but unhealthy food (e.g., Elster 1979; Hoch and Loewenstein, 1991; Loewenstein 1996; O'Guinn and Faber 1988; Schelling 1992; Thaler 1980; Thaler and Shefrin 1981; Wertenbroch, 1998). The present research proposes that consumers sometimes exercise the opposite form of self-control, whereby they attempt to avoid default forms of spending on necessities in favor of luxury, hedonic purchases.

Specifically, in tradeoffs between necessities and luxuries, the latter are at an inherent disadvantage because, by definition, necessities are at a higher status in the hierarchy of needs (e.g., Berry 1994; Maslow 1970; Scitovsky 1992; Weber 1998). Consequently, when considering particular choices between a luxury and a necessity (e.g., between going on a cruise and saving money for college), consumers usually select the necessity. However, decision rules that appear locally optimal may generate globally sub-optimal outcomes. In particular, although consumers may find it, in most cases, less painful and easier to justify spending money on a necessity compared to a luxury (e.g., Prelec and Loewenstein 1998), at a global level they may feel that they are over-spending on necessities and under-spending on luxuries and hedonic experiences (e.g., Thaler 1985).

In the present research we examine the proposition that many consumers recognize their tendency to under-spend on hedonic luxuries and seek ways to correct this imbalance in their lives. In particular, given their weakness for necessities and cash, when faced with a choice between receiving a luxury or cash of equal or greater value, many consumers pre-commit to the luxury option. Such pre-commitments are most likely to occur when their psychological cost is less concrete, such as when the decision involves a low probability event (e.g., a lottery) or when the sacrifice of cash or necessary consumption for luxury will take place in the distant future.

These propositions were tested in a series of studies, involving both real and hypothetical choices, with approximately 5,700 respondents. In these studies, we also examined alternative explanations for the results as well as consequences of consumers' desire to experience more hedonic luxuries. The theoretical and practical implications of the findings are discussed.

LUXURY DEPRIVATION AND PRE-COMMITMENT:

CONCEPTUAL FRAMEWORK

Research extending over four decades in psychology and economics, and more recently in marketing, has examined people's use of self-control strategies to avoid hedonic temptations (e.g., Ainslie 1975; Elster 1979; Hoch and Loewenstein 1991; Loewenstein 1988; Mischel et al. 1996; O'Guinn and Faber 1988; Schelling 1978, 1984, 1992; Strotz 1955; Thaler and Shefrin 1981; Wertenbroch 1998). Yielding to hedonic temptations, referred to as "myopia," indicates a very high preference for the present at the expense of the future. For example, a tobacco addict may be unable to resist the temptation of smoking, or a consumer may fail to control an urge to go on a shopping spree. In the present research, we examine what may be considered the opposite form of self-control problems – the challenge that consumers face in deviating from "doing the right thing" and acting responsibly.

We begin, however, with a brief review of the classic self-control problem (i.e., myopia), which is relevant to the form of self-control investigated here. We then proceed with an analysis of the factors that underlie the basic proposition that many consumers have difficulty allocating money and time to hedonic luxury experiences when making specific (or local) decisions, even when they generally (or globally) desire such experiences and can afford them. Next, we test the hypothesis that many consumers recognize this self-control problem and, when given the opportunity, overcome it through pre-commitment to luxury. Furthermore, we examine the moderators of the magnitude of pre-commitment to hedonic luxuries and employ process measures to gain greater insights into the underlying mechanisms and possible alternative explanations. Finally, in the last study, we investigate the consequence of consumers' need to pre-commit to luxuries, and show that hedonic luxury awards are particularly effective inducements for consumer participation in marketing programs. An outline of our analytical framework is presented in Figure 1.

Insert Figure 1 about here

The Classic Self Control Problem

The subject of self-control was examined by Schelling as part of a broader area that he called "egonomics" or "the economics of the self" (Schelling 1984; see also Schelling 1978, 1992). Schelling inferred that a myopic self-control problem exists as a result of people's attempts to restrict, in advance, their future behavior and set of options. Such behavior is termed "pre-commitment" and is part of what Schelling calls "anticipatory self-command." In explaining such pre-commitments, Schelling evoked the notion of two multiple selves that exist at different times within the same individual (but see Hoch and Loewenstein 1991; Loewenstein 1996, 1988 for a reference point account of myopic self-control problems that does not involve multiple-selves). According to Schelling, there is a far-sighted and conservative self that can anticipate that its myopic "twin" will not resist a drink at a party, for example. Therefore, this far-sighted self increases the costs of consuming alcohol by pre-committing to abstinence; it swallows the drug Antabuse that causes nausea and vomiting if alcohol is consumed. Similarly, Thaler and Shefrin (1981) employed a multiple-selves explanation in their planner-doer model of self-control, in which the main method of planning involves limiting the future set of options from which the doer can choose (i.e., a pre-commitment technique).

Relatedly, Ainslie (1975) explains myopic self-control problems using hyperbolic (i.e., non-exponential) time-discounting, which leads to the prediction that preference for delayed-larger rewards over (less optimal) earlier-smaller rewards will reverse as a function of the temporal proximity of rewards (see also Chung and Herrnstein 1967; Strotz 1955). Thus, many people employ a pre-commitment device that irreversibly constrains future behavior so that an earlier-smaller alternative cannot be obtained when it is proximal and preferred (e.g., placing an alarm clock across the room to ensure waking up on time in the morning). Although not explicitly advanced by Ainslie, the non-exponential discounting perspective is consistent with the multiple-selves analogies discussed earlier.

As indicated, we propose that pre-commitment as a means for self-control also applies to the opposite form of self-control, namely, the need to force oneself to splurge and spend on items that one can do without but which enrich and enhance the quality of life. First, however, we need to examine more closely the bases for the proposition that such a (hyperopic or farsighted) self-control problem indeed exists.

Choosing Between Necessities and Luxuries

Philosophers, sociologists, and political scientists have discussed the lower status of luxuries relative to necessities with respect to basic importance in the hierarchy of needs (e.g., Berry 1994; Maslow 1970; Weber 1998). Berry characterizes luxuries as objects of desire that provide pleasure, whereas necessities are utilitarian 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, p. 199). The principle of precedence is consistent with 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 relative to necessities (e.g., Kivetz 1999; Prelec and Herrnstein 1991; Prelec and Loewenstein 1998; Thaler 1980, 1985). A related stream of research has examined consumer tradeoffs 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, with most luxuries associated with hedonic experiences and most necessities representing utilitarian items. The correspondence between these two classifications is also reflected in the above dictionary definitions of luxuries and necessities. In the present research, as shown in the pilot study described later, in virtually all cases luxury items were also perceived as hedonic and necessities as utilitarian.

Prelec and Loewenstein’s (1998) work on the pain of paying suggests that spending money on luxuries is associated with greater pain, which might spoil the consumption experience. In a similar vein, if choice is viewed as based on reasons (e.g., Shafir, Simonson, and Tversky 1993), luxuries are at a natural disadvantage relative to utilitarian necessities because the latter have the ultimate justification -- one just cannot do without them. Furthermore, choosing luxuries over necessities is likely to evoke guilt (e.g., Kivetz and Simonson, in press; Lascu 1991; Prelec and Herrnstein 1991; Strahilevitz and Myers 1998; Thaler 1980). In particular, consumers may feel guilt or at least ambivalence 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 they are offered at no cost, if we feel they will take away from our work or add to our waistline. As Lascu (1991) asserts, consumers often feel the guiltiest about the things that provide them with the highest pleasure.

Research on mental accounting (e.g., Thaler 1985; Thaler and Johnson 1990) and mental budgeting (e.g., Heath and Soll 1996) suggests that consumers do not buy enough luxuries even when these would provide more pleasure or satisfaction than could be achieved by saving money. Thaler (1985) argues that the purchase of hedonically pleasurable luxuries is often over-constrained for self-control reasons (which makes them attractive gifts). Heath and Soll (1996) find that mental budgets cause consumers to be overly frugal in categories such as entertainment. In conclusion, prior research suggests that many consumers tend to over-emphasize necessities at the expense of luxuries. Thus, as we discuss next, consumers might seek opportunities to increase their hedonic luxury consumption.

Conditions Promoting Pre-commitments to Hedonic Luxuries

Previous research has identified conditions that promote choices of hedonic luxuries over utilitarian necessities. Strahilevitz and Myers (1998) show that promised donations to charity are more effective in promoting purchases of frivolous luxuries than practical necessities, presumably because charitable giving reduces the guilt associated with hedonic consumption. Kivetz and Simonson (in press) demonstrate that the completion of a long effort stream can help justify pleasurable consumption (“earning the right to indulge through hard work”). For example, consumers who participate in frequency programs are more likely to prefer luxury over necessity rewards when these rewards are contingent upon the completion of relatively effortful consumption requirements (e.g., purchasing gasoline twenty vs. ten times). Prior research also suggests that a low perceived cost of hedonic luxuries (e.g., windfall gains) promotes choices of such items (e.g., Arkes et al. 1994; Henderson and Peterson 1992; O’Curry 1999; O’Curry and Strahilevitz 2001; Thaler 1985, 1999; Thaler and Johnson 1990), consistent with the notion that luxuries have a higher price elasticity of demand compared to necessities (e.g., Lipsey 1989).

In this research, we study the conditions and tactics that help consumers, who have difficulty spending on hedonic luxuries, increase their luxury consumption. We assume that many consumers recognize that the advantage of necessities in local decisions creates an imbalance in their lives whereby they do not have enough fun and do not spend enough time and money on pleasurable things that go beyond the indispensable minimum. Consequently, under certain conditions, consumers may pre-commit to luxuries to ensure that they do not end up selecting necessities over hedonic luxuries. Such behavior is consistent with Mick’s (1991) notion of “self-gifts,” which represent “… a sincere personal attempt to rectify the persistent urge to say “no” to ourselves in daily life” (1996, p. 116; see also Mick and DeMoss 1990). Multiple types of self-gifts have been discovered, such as Puritanic reward self-gifts, which are self-indulgences justified by effortful behavior (Mick 1996; see also Kivetz and Simonson, in press). Consumers purchasing such reward self-gifts often evoke a theme of deserving and a conviction that the self-gift was earned. Similarly, consumers may feel that they are entitled to hedonic luxuries because they consistently underconsume them.

Still, the difficulty of allocating resources to hedonic luxuries suggests that consumers may have to make irreversible pre-commitments so that they do not change their minds at a later time. For instance, consider a consumer who participates in a lottery and needs to choose in advance between a cash reward and a luxury reward (e.g., a cruise, a pampering massage) of equal or lesser value. A value-maximizing consumer will be expected to select the cash (e.g., Thaler 1985), which can be used to purchase the luxury option or anything else the consumer desires. However, a consumer who is aware of his or her attraction to necessities may prefer to pre-commit to the luxury reward, to make sure that the reward does not end up in the pool of money spent on necessities.

In general, the ability to forego cash (or necessities) and to pre-commit to luxuries is likely to depend on consumers' ability to "think globally," that is, to think outside of the context of the particular choice set and to consider their global preference for going beyond the indispensable minimum. Further, when the choice options and outcome are relatively abstract, the psychological cost or pain of choosing a "sinful" luxury over the more easily justified option (e.g., cash) is lower. In other words, when the outcome of decisions seems less concrete, it is easier for consumers to make what otherwise would be a painful choice.

This proposition is consistent with research regarding intertemporal preferences and delayed gratification. According to temporal construal theory (Liberman and Trope 1998; Trope and Liberman 2000), distant future situations are construed at a higher level (i.e., more abstract) than near future situations. In particular, decisions regarding the distant future are more influenced by desirability considerations, whereas decisions regarding the near future are more influenced by feasibility constraints. That is, people think about future situations in terms of their general goals and postpone thinking about the more concrete, specific aspects of the situation until later (Trope and Liberman 2001; see also Soman 1998). For example, in one study (Trope and Liberman 2000), participants expected to receive a radio either on the next day or one year later, and needed to choose between a radio with good sound and a poor clock and a radio with poor sound and a good clock. As predicted by the theory, the choice share of the radio with the superior sound, which relates to the primary function (or goal) of a radio, was higher in distant future choices.

Temporal construal theory suggests that consumers are more likely to choose luxuries over cash (or necessities) when the consequences of the decision are less concrete and, in particular, are temporally distant. This conclusion is consistent with the notion that desirability, compared to feasibility, considerations loom larger in temporally distant decisions. Furthermore, this analysis highlights the importance of making irreversible pre-commitments; otherwise, when the time comes to actually give up cash or necessities for the sake of hedonic luxuries, consumers will be susceptible to a change of mind.

In the literature on delayed gratification, Mischel and his colleagues have shown in numerous experiments that the tendency to wait for preferred rewards (e.g., food treats) is enhanced when the psychological salience of rewards is reduced, such as when (a) the reward is not physically present, (b) the subject engages in cognitive distractions from the reward, or (c) the reward is mentally represented in "cool" (abstract) rather than "hot" ways (Mischel 1981, 1983; Mischel and Ebbeson 1970; Mischel, Ebbeson, and Zeiss 1972). These findings suggest that when reward options are psychologically less concrete subjects are better able to exercise self-control and choose the course of action that is aligned with their global preferences. Combining the research on delayed gratification and temporal construal, we expect that any factor that lowers the concreteness of choice outcomes (and rewards) will facilitate pre-commitment to hedonic luxuries. Accordingly, we predict that consumers will be more likely to pre-commit to a luxury reward over a cash reward when the odds of winning the reward are lower. That is, low probability rewards are likely to be less concrete and be evaluated on a more global level, with less emphasis on their feasibility and cost.

The discussion leads to the following hypotheses:

> H1: When faced with a choice between a luxury reward and a cash reward of equal or greater monetary value, a significant proportion of consumers prefers the former.
>
> H2: Consumers will be more likely to pre-commit to luxury consumption (i.e., choose the hedonic luxury over the cash) when the time delay between the decision and the lottery is greater.
>
> H3: Consumers will be more likely to pre-commit to luxury consumption (i.e., choose the luxury over the cash) when the odds of winning the lottery are lower.

METHOD OVERVIEW

We conducted a series of studies to test H1-H3 as well as the hypotheses discussed subsequently. The participants in these studies were approximately 5,700 travelers, who were waiting for their flights at domestic terminals in a major airport. They were between 18 to 80 years old and represented a wide range of demographic characteristics.

In each study, respondents made choices or provided ratings related to a lottery, a sweepstakes, or another award scenario. As described below, in some cases, the lotteries were actual lotteries that we conducted for the purpose of this research, and in other studies the choices were hypothetical. The lotteries and sweepstakes used in the studies are similar to those commonly offered in the marketplace, such as sweepstakes that offer a choice between a cash award and in-kind gifts. Prizes were based on real lotteries (e.g., on the Internet and in direct mailings) and included, for example, a gourmet dinner for two, travel vouchers, cruises, and a massage. In all cases, the positions of options on the page were counterbalanced, between-subjects, to control for any order or position effects.

Pilot Study

A pilot study was conducted for two purposes. First, we wanted to test whether the designated luxury and necessity rewards were perceived as such by the airport travelers who served as respondents in our studies. A second, more substantive objective was related to our earlier discussion of the correspondence between the luxury-necessity and the hedonic-utilitarian dimensions. As indicated, although conceptually the two dimensions focus on somewhat different aspects, they are likely to be correlated because many luxury items are hedonic and many necessity items are utilitarian. Accordingly, we asked one group of respondents to rate each of several rewards on a luxury-necessity scale whereas a second group rated these rewards on a hedonic-utilitarian scale.

Method. The respondents were 173 airport travelers. One group of respondents (n=85) received a list of 18 services and products and was asked to rate each item on a five-point scale ranging from “Strictly Luxury” (1) to “Strictly Necessity” (5), with the midpoint labeled “Equally Luxury and Necessity” (3). Respondents received the following definitions for luxury and necessity items (taken from Webster’s Third New International Dictionary 1986):

> Luxury Product: Non-essential item or service that contributes to luxurious living; an indulgence or convenience beyond the indispensable minimum.

> Necessity Product: 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.

The second group of respondents (n=88) received the same list and was asked to rate each item on a five-point scale ranging from “Strictly Pleasurable” (1) to “Strictly Practical” (5), with “Equally Pleasurable and Practical” representing the midpoint of the scale (3). The terms “pleasurable” and “practical” were used rather than the terms “hedonic” and “utilitarian” (respectively) due to the evidence that the latter terms may be misunderstood by subjects (Strahilevitz and Myers 1998). Respondents received the following definitions for pleasurable and practical items (see also Dhar and Wertenbroch 2000; Strahilevitz and Myers 1998):

> Pleasurable Products: Fun, experiential goods and services; consumption that emphasizes pleasure and fun over usefulness.

> Practical Products: Practical, useful goods and services; consumption that stresses usefulness over pleasure and appearance.

Results. In all cases, the products and services used in our studies as luxury [necessity] prizes were rated as such by respondents (in all cases, the means were significantly different from the scale’s midpoint at $p < .0001$). Similar results were obtained in the group that rated items on the hedonic-utilitarian scale. Furthermore, the correlation between the means of the 18 items on the two scales was 0.975, indicating that all luxury [necessity] items were also perceived as hedonic [utilitarian].

Of course, since the items that we selected are not a random sample of all products and services, the observed correlation between the luxury and hedonic dimensions may not generalize to the entire universe of items. Indeed, one can come up with examples of luxury products that are not hedonic (e.g., a Neiman Marcus utensil) and hedonic items that are not regarded as luxury (e.g., a Snickers bar). However, in most cases, including the awards used in the present research, luxury items are hedonic whereas necessity items are utilitarian. Accordingly, we hereafter use the terms “hedonic luxuries” and “luxury pre-commitment.” It should be emphasized, though, that the more relevant distinction is between ordinary, necessary items and “special,” luxury items that one does not normally consume and has greater difficulty justifying (e.g., Berry 1994; Webber 1998).

TESTS OF THE BASIC LUXURY PRE-COMMITMENT PROPOSITION

Study 1: Tests of Choices of Luxury Over Cash Awards of Equal or Greater Value (H1)

Hypothesis 1 proposes that a significant proportion of consumers will choose a luxury over a cash prize of equal or greater monetary value. We examined this hypothesis using a series of separate studies in which respondents were asked to choose between two lottery prizes – a luxury item and a cash amount. Although cash is not a typical "necessity," it allows a particularly powerful test of H1, since cash is almost universally desired. Conversely, due to taste heterogeneity, the preference for the particular hedonic luxury reward used (e.g., a massage) is likely to vary greatly across respondents. Thus, the lower taste heterogeneity for cash relative to a specific luxury reward suggests that the share of respondents who pre-commit to the luxury reward is a conservative test of H1. In a subsequent section, we report a study that tested H1 using a real lottery in which consumers could actually receive the prize they chose.

Method. As indicated, respondents were asked to choose between two possible prizes that they would receive in case they win a future lottery (or sweepstakes) – a hedonic luxury (e.g., a Caribbean cruise, a massage or a facial, a gourmet restaurant voucher) or a cash amount of equal or greater monetary value. For example, in the restaurant problem, respondents chose between "A dinner-for-two certificate at a leading gourmet restaurant (maximum value = $200)" and "$200 in cash." In a second problem, the possible rewards were "A Stellar Bottle of Red Wine (retail value = $50)" (described as "1997 Morey-Saint-Denis, Les Ruchots, Arlaud: Grand Cru flavors in a Premier Cru red Burgundy …") and $55 in cash. Figures 2a and 2b present examples of the choice task. In some cases, a color picture was provided for the luxury in-kind. Respondents made only one lottery (or sweepstakes) choice, which was mixed with other "filler" problems from unrelated studies. In total, H1 was tested in nine problems in which the value of the luxury reward was identical to the cash amount and six problems in which the cash value was greater. The number of respondents per test ranged between 45 and 356.

Insert Figures 2a and 2b about here

Results. Consistent with H1, in all 15 problems testing the preference for luxury in-kinds over cash prizes of equal or greater value, the proportion of respondents who chose the luxury prize was significantly greater than zero (all *p*'s<.01). Across the 15 problems, the median share of the luxury reward was 24%. For example, in the restaurant problem, 29% (13/45) chose the dinner-for-two voucher with a maximum value of $200 over $200 in cash (as described later, similar results were obtained using a real lottery with the same awards). In the "stellar wine" problem, 28% (24/85) chose the wine with retail value of $50 over $55 in cash. Appendix A presents two additional problems in which 39% and 28% of the respondents chose a luxury over a cash award of greater value.

In summary, consistent with H1, the results indicate that substantial proportions of respondents prefer hedonic luxuries over cash amounts of equal or *higher* monetary values. That is, some consumers are willing to effectively pay a premium in order to constrain their future choice set and pre-commit to pleasurable consumption. Next, building on the notion that many consumers recognize their tendency to deprive themselves of luxuries, we test the hypothesis that pre-commitment to luxuries is more prevalent than pre-commitment to necessities by contrasting the proportions of consumers who choose a luxury over cash, a necessity over cash, and a necessity over a luxury. This test also allows us to rule out different alternative explanations (discussed subsequently) for the high share of luxury over cash choices.

Study 2: Pre-Commitment to Luxuries Versus Necessities

Cash is fungible and can be converted to necessities, luxuries, or savings, suggesting that consumers should generally prefer cash over both necessities and luxuries (of equal value). However, we argued that pre-commitment to hedonic luxuries offers an additional value by ensuring that consumers will not end up adding the cash award to their general pool of money, which is usually reserved for necessities or savings. In other words, whereas a cash reward has a clear advantage over a necessity reward, the advantage of choosing cash over a hedonic luxury might be offset by the value of pre-commitment to hedonic luxury consumption. Conversely, for many consumers there is little need to pre-commit to necessities, since spending on such items is the default. This discussion suggests the following pattern of (intransitive) preferences for luxury (l), necessity (n), and cash (c) rewards:

$P(l,c) > P(n,c)$, but $P(n,l) > ½$, where $P(x,y)$ = the proportion of consumers who choose x from the set {x,y}.

In other words, we expect that a greater proportion of consumers will choose a luxury reward over cash than a necessity reward over the same cash prize, yet in a direct ("local") comparison between a necessity and a luxury, most will choose the necessity reward.

Method. Two hundred and one respondents were randomly assigned to one of three lottery conditions, each offering a choice between two possible prizes: (1) a luxury or a cash prize of greater monetary value, (2) a necessity or a cash prize of greater monetary value, and (3) a necessity or a luxury prize of equal monetary value. In all conditions, respondents were asked to indicate in advance which of the two possible prizes they prefer to receive in case they win the lottery. The luxury prize was a massage or facial (valued at $70), the necessity prize was $70 of credit toward grocery bills, and the cash prize was $80.

Results. As expected, the proportion of respondents who chose the luxury over the cash prize of greater monetary value was higher than the proportion of respondents who chose the necessity over the same cash prize (i.e., $P(l,c) > P(n,c)$). Specifically, 25% (14 out of 56) of the respondents chose the massage or facial (valued at $70) over $80 in cash, whereas only 9% (7 out of 77 respondents) chose the grocery credit (valued at $70) over the same $80 in cash, a difference of 16% ($\chi^2 = 6.2$; $p<.05$). However, a majority of respondents (63%; 43 out of 68) chose the grocery credit over the massage or facial (using the normal approximation of the binomial distribution; $Z=2.18$; one-tailed; $p<.03$).

These results are consistent with our assumptions regarding the mechanisms underlying choices of hedonic luxuries over cash. Specifically, in the direct choice between the necessity and the luxury, the former had an advantage. Furthermore, as might be expected, few consumers chose the necessity over the cash, since cash is fungible and is expected to be used for different possible necessities. However, consistent with the notion that consumers are trying to correct for a local tendency to underconsume hedonic luxuries, a relatively large proportion of respondents pre-committed to the hedonic luxury and selected it over cash.

These results also rule out different alternative explanations (discussed in more detail subsequently) for the high share of luxury over cash choices. In particular, if pre-commitment reflects other factors, such as random choices and savings in search/transaction costs, that are unrelated to an attempt to correct for underconsumption of hedonic luxury goods, then we would expect to observe similar rates of pre-commitment to necessities. That is, the share of choices of necessity over cash can serve as a benchmark or control for assessing the rate of luxury pre-commitment. In fact, it is a conservative control since some consumers might choose necessities over cash to protect themselves from a myopic use of the cash. As shown in the above study, consumers are significantly more likely to choose a luxury over cash than a necessity over cash, consistent with the notion that the underlying mechanism is luxury pre-commitment.

MODERATORS OF THE TENDENCY TO PRE-COMMIT TO HEDONIC LUXURIES

Although the results pertaining to H1 are consistent with the desire to guarantee hedonic luxury consumption, they do not directly test the psychological mechanisms underlying the observed choices. Thus, we turn now to an examination of a key moderator of luxury pre-commitments and, subsequently, we use process measures to gain greater insights into the underlying motivation and choice process. Building on temporal construal theory (Trope and Liberman 1998) and other research, we proposed earlier that the concreteness and proximity of commitments and their consequences, based on the time horizon and the odds of winning, moderate the tendency to pre-commit to hedonic luxuries. Specifically, H2 and H3 predict that more distant and lower probability commitments, respectively, are likely to be less concrete and less painful and can thus be applied more easily towards the goal of adding luxury and fun to one's life.

Study 3: Tests of the Effect of Time Horizon on Preferences for Hedonic Luxuries (H2)

The prediction that consumers will be more likely to pre-commit to hedonic luxury consumption when the sacrifice of necessary consumption will occur at a more distant point in time was tested using both hypothetical problems and a study in which half the respondents made actual choices relating to a real lottery and the other half made hypothetical choices. As described next, the hypothetical problems produced results that were in the predicted direction but were not statistically significant. However, when real choices were involved, the effect of time horizon on preferences for luxuries was in the predicted direction and statistically significant.

Tests of H2 Using Hypothetical Choice Problems

Method. Respondents in three tests were randomly assigned to one of two conditions, representing two levels of reward delay (short versus long). In one study, 184 respondents were randomly assigned to one of two reward-delay conditions – one or nine months – and chose between a massage or facial (valued at $85) and $95 in cash (see Figure 3). In a second problem, 170 respondents chose between a vacation package valued at $2,900 and $3,000 in cash, with the time horizon (lottery taking place in either one month or in six months) manipulated between subjects. In a third study, 154 respondents chose between a seven-night luxury cruise (valued at $4,000) and $4,000 in cash, to be awarded in three or 18 months. In all cases, respondents made only one choice involving a sweepstakes or lottery, which was mixed with other problems from unrelated studies.

Insert Figure 3 about here

Results. In all three tests, increasing the time delay between the decision and its consequences directionally enhanced the rate of pre-commitment to hedonic luxuries (from 28% to 39% in the first study, from 19% to 27% in the second study, and from 21% to 28% in the third study). However, in all three studies the magnitude of the delay effect was not statistically significant ($p>.1$). One possibility, examined in the following study, is that the effect of time horizon will emerge more clearly when real choices are involved.

A Test of H2 (and H1) Using Real and Hypothetical Choices

A test of the prediction that consumers are more likely to choose a luxury over a cash prize when the consequences of that decision are temporally distant requires that the experimental setting produce, as much as possible, the psychological state associated with this condition. Specifically, respondents should behave as they would if the consequences of their choices were truly near or distant, so that the differences, if any, between the two states can be observed. Although laboratory simulations of such psychological states using hypothetical problems are often effective, it is reasonable to expect that respondents who make real choices with real consequences will behave more as they would outside the experimental context. To investigate this conjecture, the next study tested H2 using both real and hypothetical choices and a between-subjects design. This study also tests H1 using real choices.

Method. Two hundred and forty-seven female travelers were randomly assigned to one of four conditions in a 2 (reward delay: short vs. long) x 2 (type of choices: real vs. hypothetical) between-subjects design. We used only female respondents in order to reduce taste heterogeneity with respect to the luxury prize used in the study, a premium day spa package. In all four conditions, participants first completed an unrelated survey and then received a lottery form showing two prizes. In the real lottery conditions, the lottery form indicated that, as a token of appreciation, participants could enter a lottery in which the winner will receive one of two prizes (see Figure 4). Participants were asked to indicate in advance which prize they choose to receive in case they win, so that the lottery organizers could plan ahead. The participants were then instructed to tear off the bottom half of the lottery form and to keep it as a receipt. This lottery receipt had a number on it and a Website address on which participants could subsequently check whether they had won. Participants in the hypothetical lottery conditions were also asked to indicate in advance which prize they would have selected had they participated in such a lottery. These participants did not receive a lottery receipt and, after making their choice, were asked to explain their decision in writing. The analysis of the written choice explanations is reported later.

Insert Figure 4 about here

The two prizes were "a luxurious 1-hour facial cosmetic treatment or a 1-hour pampering massage (maximum retail value = $80) at a premium day spa at a location of your choice" and "$85 in cash (you decide how to spend the money – for example, at the supermarket, gas station, or at a premium day spa at a location of your choice)." Thus, the cash prize was not only greater than the luxury prize in monetary terms, but also explicitly reminded participants that they could use the cash to purchase, among other things, the item that was the alternative (luxury) reward. The description of the luxury prize indicated that the spa certificate was provided by SpaFinder.com and was redeemable at over 500 premier day spas throughout the U.S.

The delay between the choice of prize and the time when the lottery subsequently took place was manipulated between-subjects. Half the participants were told that "the actual lottery drawing will take place in about fourteen weeks, on September 29th, 2000" (long delay condition) and the other half were told that "the actual lottery drawing will take place in about one week, on July 3rd, 2000" (short delay condition).

Results. In both the "real" and "hypothetical" choice conditions, increasing the time delay between the decision and its consequences tended to enhance the rate of pre-commitment to the hedonic luxury. However, whereas the effect in the hypothetical conditions again was not statistically significant, the effect of temporal separation in the group that made real choices was larger and statistically significant.

Specifically, in the "hypothetical choice" condition, when the time delay was short (i.e., one week), 30% (18 out of 61) of participants chose the premium spa package over the cash prize. However, when the time delay was increased to fourteen weeks, 35% (22 out of 63) chose the spa package over the cash ($\chi^2 = 0.4$; $p>.1$). By contrast, in the "real lottery" condition, when the time delay was one week, only 18% (10 out of 56) of participants chose the premium spa package over the cash prize. However, when the time delay was increased to fourteen weeks, 36% (24 out of 66) chose the spa package over the cash, an increase of 18% in the rate of pre-commitment to the hedonic luxury reward ($\chi^2 = 5.2$; $p<.05$). The interaction between the type of choice and the duration of delay on the rate of pre-commitment was statistically significant ($\chi^2 = 5.0$; $p<.05$).

Discussion. The findings of this study are noteworthy in three respects. First, consistent with H2, they indicate that consumers are more likely to pre-commit to luxury items when the consequences of their decision are delayed. More generally, given the difficulty of justifying the acquisition and consumption of luxuries, as discussed earlier, a decrease in the psychological cost and concreteness of such pre-commitments helps consumers select hedonic luxuries. Furthermore, the time-inconsistent preferences demonstrated in the test of H2 support the notion that consumers use luxury pre-commitments because they recognize (at a global level) that they are over-spending on necessities and under-spending on luxuries when faced with more immediate, local choices.

Second, some critics of laboratory consumer research point to the hypothetical nature of the choices and judgments respondents make, arguing that the observed effects might not occur when real decisions are involved. This study, however, suggests that laboratory studies may often underestimate the magnitude of tested effects, because hypothetical problems are less effective in eliciting the psychological states that lead to the choices and judgments at issue in more natural conditions. And finally, in addition to H2, this study also supported H1 with real choices, again showing that a significant proportion of respondents choose a hedonic luxury over cash of greater value.

Study 4: Tests of the Effect of Winning Odds on Preference for Hedonic Luxuries (H3)

As discussed previously, less expected gains are likely to be less concrete and be evaluated on a more global (abstract) level that is conducive to hedonic luxury pre-commitment. We test this prediction (H3) by manipulating the likelihood of winning either cash or a hedonic luxury reward of lesser value.

Method. One hundred and eighty respondents were randomly assigned to one of two conditions, representing two levels of winning odds (low versus high). They were asked to indicate which of two possible prizes – a vacation package to Europe, valued at $2,900, or $3,000 in cash - they prefer to receive in case they win a (hypothetical) sweepstakes (see Figure 5).

Insert Figure 5 about here

Results. Consistent with H3, lowering the odds of winning increased the rate of pre-commitment to hedonic luxuries. When the odds of winning were 1 in 50, only 13% (12 out of 89) of respondents chose the vacation package to Europe over the cash prize, compared to 36% (33 out of 91 respondents) when winning odds were 1 in 1,000,000 ($\chi^2 = 12.5$; $p<.001$). This finding supports H3 and is consistent with the notion that consumers are more likely to pre-commit to luxuries when rewards are psychologically less concrete (or proximal).

It is noteworthy that the prediction that consumers are more likely to select hedonic rewards when the odds of receiving the reward are lower was independently tested and supported by O'Curry and Strahilevitz (2001) and by Rottenstreich and Hsee (2001). These researchers offered different explanations for this effect. In particular, O'Curry and Strahilevitz employed an anticipation utility explanation (e.g., Loewenstein 1987), whereas Rottenstreich and Hsee used a modified version of prospect theory's weighing function (Kahneman and Tversky 1979).

PROCESSES UNDERLYING PRE-COMMITMENTS TO LUXURIES

Although the observed preference for luxury over cash prizes and the effects of time horizon and winning odds are consistent with the luxury pre-commitment hypothesis, they do not provide much insight into the decision processes and considerations that underlie preferences for luxuries over necessities. In this section we use process measures to test our explanation for pre-commitments to hedonic luxuries and examine the factors that motivate consumers to select seemingly dominated options. Further, building on our account for pre-commitments, we test the hypothesis that consumers, who are explicitly asked to consider what they would do with a cash reward and a luxury reward, are more likely to pre-commit to the luxury reward than consumers who do not engage in such an analysis.

Study 5: The Effects of Anticipating Uses of Cash and Luxury Prizes (H4)

Recent research indicates that consumers often make decisions without first trying to predict their preferences at the time of consumption (e.g., Kahneman 1994; Kahneman and Snell 1990). However, when explicitly asked to anticipate future preferences, consumers are often capable of predicting what they would want at a later time and choose accordingly (e.g., Simonson 1990; for a related analysis dealing with the dis/advantages of anticipating future self-control problems see O'Donoghue and Rabin 2000).

In the context of this research, we expect that, although most consumers choose cash awards over luxury prizes of equal or lower monetary value, they may anticipate that the luxury prize will provide higher utility or enjoyment than the cash prize. Furthermore, our explanation for the finding that consumers choose hedonic luxury over cash suggests that anticipating how each prize will be used highlights the gap between the global desire for hedonic luxuries and the tendency to prefer necessities in local, concrete choices. That is, asking consumers to anticipate how they will use each prize option is expected to elicit thoughts relating to the difficulty of spending on items that are not essential but contribute to one's quality of life. Moreover, consumers might anticipate spending any cash reward on necessary consumption (e.g., groceries, utility bills, savings), which in turn might enhance the likelihood of choosing the luxury reward instead.

> H4: Consumers who think about and predict their uses of a luxury prize and a cash award of equal monetary value before choosing between these prizes (versus consumers who do not), will be more likely to pre-commit to hedonic luxury consumption (i.e., choose the luxury over the cash).

Method. Respondents were assigned to either a control group (n=280) or a pre-choice prize use prediction group (n=200). In both conditions, respondents were asked to choose in advance between two sweepstakes prizes -- $1,300 in cash or a 4-day Caribbean cruise (valued at $1,300). In the use-anticipation condition, they were asked to predict, before making their choice, how they would use each of the two prizes (e.g., "In case you receive Prize A ($1,300 in cash) what would you do with that prize?")

Results. Consistent with H4, anticipating prize uses before choice increased the rate of luxury pre-commitment from 14% in the control group to 24% in the use-anticipation group ($\chi^2 = 7.3$; $p<.01$). To examine the thought processes underlying this effect, the prize uses predicted by respondents were coded by two independent judges, who were unaware of the hypotheses. The inter-judge reliability was 94%, and disagreements were resolved by discussion. Different codes were employed for the anticipated uses of the luxury (Caribbean cruise) prize and the cash prize.

Of most interest are the anticipated uses of the cash prize and their impact on the likelihood of selecting the luxury prize over the cash. Pooling across respondents' prize choice, a majority anticipated using the cash for necessity items such as paying bills, saving, and financing education. Specifically, 65% of the respondents (130 out of 200) predicted that they would spend the cash on necessary activities. Furthermore, 27% (35 out of 130) of the respondents who predicted spending the cash on necessity items chose the cruise over the cash, whereas only 17% (12 out of 70) of the respondents who predicted spending the cash on other items (e.g., on items such as entertainment, other vacations, and gifts) chose the cruise over the cash. This result is consistent with the notion that choices of luxury over cash awards are often motivated by the recognition that a cash award will likely be added to the household's pool of cash and be used for the things that cash is typically used for (i.e., necessities). Further, this result suggests that anticipating prize uses enhances consumers' tendency to pre-commit to hedonic luxuries because it prompts them to realize that they would probably spend the cash on necessities.

Finally, an analysis of the anticipated uses of the cruise prize reveals that the share of this option is constrained by taste heterogeneity, again indicating that the observed rate of pre-commitment is conservative. For example, 25% of the respondents who chose the cash indicated that they would "give the cruise away" (12%), "cash it in" (12%), or even "skip it" (1%).

Overall, these results show that the mere act of predicting how one will use each prize makes it clear that a cash prize will, in all likelihood, be spent on necessities. This, in turn, increases the willingness to forego the cash and pre-commit to the hedonic luxury reward. Next, to further test our account for luxury pre-commitments, we examine the choice explanations provided by respondents choosing between cash and luxury prizes.

An Analysis of Consumer Explanations for Choosing Luxuries Over Cash

We proposed that choices of luxuries over cash of equal or greater value reflect the difficulty of consumers in "treating" themselves to luxuries and having more fun as well as a conscious attempt to escape the default inclination to spend on necessities. Accordingly, we expect respondents to explicitly refer to such considerations when asked to explain their choices between luxuries and cash. This prediction was examined using the choice explanations provided by respondents in the hypothetical choice version of the reward delay study described earlier.

Method. Respondents were 124 female travelers, who made a hypothetical choice between a premium spa package (maximum retail value = $80) and $85 in cash. These participants were asked to explain their decisions in writing after making their choice. The choice explanations provided by participants were coded by two independent judges, who were unaware of the study's predictions. The inter-judge reliability was 91%, and disagreements were resolved by discussion.

Results. Different codes were used for participants who chose the luxury prize versus participants who chose the cash prize.[1] Among participants who chose the luxury reward (40/124), 83% explained their choice as a pre-commitment to hedonic luxury consumption, often indicating that if they had chosen the cash they would have spent it on necessary consumption (see code 1 in Table 1). In coding explanations, only reasons that were unequivocally related to pre-commitments to hedonic luxuries were classified as such, whereas more ambiguous explanations were not. The following are examples of explanations for choosing the luxury item that were coded as reflecting luxury pre-commitment:

– "If I choose the $80 I would probably spend the $ on something I need rather than something I'd really enjoy! I've been saying for 4-5 months that I'm going to go to the spa for a massage."

– "Because I need the support in doing something nice for myself. If I took the cash, it would end up going into the rent."

– "That way I'd <u>have</u> to pamper myself and not spend the $ on something like groceries."

– "I would not likely spend the $ on an indulgence so I might as well plan to give myself a treat."

Insert Table 1 about here

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[1] Corresponding to the directional but statistically insignificant differences between the near and distant (hypothetical) reward conditions (reported previously), explanations that were consistent with luxury pre-commitment were more common in the distant condition, but the differences were not significant. Accordingly, the analysis of explanations is pooled across temporal conditions.

Of course, we are not proposing that every participant who chose the luxury over the cash prize was aware of or even driven by the luxury pre-commitment rationale. However, the prevalence of such explanations supports the notion that such a desire to overcome the difficulty of selecting hedonic luxuries is the primary cause of such preferences.

It is also informative to examine the explanations provided by respondents who chose cash over the hedonic luxury reward (84/124). A large proportion of these participants (52%) chose the cash because it normatively dominated the spa package (using reasons like "the cash gives more options and choices," and "the cash is worth in dollars more than the spa package"). The written explanations also indicate that the choice share of the luxury is constrained by taste heterogeneity and idiosyncratic characteristics of the particular in-kind prize used, suggesting that the observed rates of luxury pre-commitment in our studies are conservative. In particular, a total of 25% of participants rejected the spa prize for idiosyncratic reasons, such as: "I don't like people touching me," "I live in Chicago and what if I don't like the spa on the list?" and "I live in a very remote area in Northern California where the likelihood of Anything.com being available to me is extremely unlikely."

The written explanations can also be used to examine possible alternative explanations for choosing luxuries over cash prizes. First, some participants might have chosen the luxury over the cash because the premium spa package was already set up and, thus, entailed lower transaction and search costs compared to a spa package that they might wish to purchase. Second, some participants might have believed that the cash award was taxable whereas the luxury prize was tax-free. Third, participants might have chosen the spa package over the cash prize in order to safeguard against more frivolous and myopic temptations (e.g., gambling) as opposed to counteracting a "weakness" for necessities. Fourth, some participants might have perceived the value of the spa package to be higher than the retail value stated on the lottery form. Finally, the higher likelihood of selecting the hedonic luxury in temporally distant lotteries might reflect the greater utility of anticipation or savoring (e.g., Loewenstein 1987; Elster and Loewenstein 1992).

Importantly, although verbal protocols (written explanations) cannot capture nontransparent influences on consumer choices, all of these rival accounts involve factors that should be conscious and transparent to the extent that they play a role in the decision. An examination of the written explanations, however, did not support any of these alternative explanations, since none of the participants explained a choice of the spa package with a reason that was consistent with these rival accounts. In addition, noise or random choice behavior cannot account for the substantial choice shares of luxury rewards since respondents were unlikely to make random choices knowing that they would subsequently have to explain their decisions.

In summary, the choice explanations provided by respondents support our account for the observed preferences of hedonic luxuries over cash of equal or greater value and are inconsistent with rival accounts. This conclusion was further supported by an analysis of the explanations provided in four other studies for selecting a hedonic luxury over cash.[2]

For example, in one study we examined the choices and explanations of respondents who made selections for themselves and respondents who assumed that the choice of a lottery prize was for someone else (their best friend). The latter group first predicted what the other person would

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[2] Detailed stimuli, results, and statistical tests can be obtained from the first author. It is noteworthy that, in one of these studies, respondents were asked to explain their decision *before* rather than after making their choice. The results of all studies were similar to the findings reported above.

have chosen for himself/herself and then made the choice for that person. The results indicated that (a) the share of the luxury prize was significantly higher in choices for another person than for oneself, (b) in the group that chose for another person, a significantly higher proportion chose a luxury prize despite predicting that the recipient would have selected the cash prize for him/herself, compared to the share of respondents choosing the cash despite predicting that the recipient would have selected the luxury prize, (c) most choices of luxury rewards for others were explained as intended to "force" the recipient to engage in future pleasurable consumption, and (d) this luxury pre-commitment explanation was especially prevalent among respondents who chose the luxury prize for another person despite predicting that this person would actually choose the cash for himself/herself (e.g., "My friend would like a massage but is too cheap to buy it herself;" "I want my friend to enjoy the prize and not spend the money on bills;" "I chose "A" [massage] because she would spend the money on practical things... She wouldn't choose anything completely indulgent").

So far, we have focused on consumer choices between rewards. However, in many real world cases the relevant decision is whether or not to participate in a lottery, sweepstakes, or any other activity with a potential reward, as opposed to choosing between rewards. In the next section, we use a real lottery to test the implications of the phenomenon we have studied with respect to consumer decisions as to whether to purchase a lottery ticket.

IMPLICATIONS OF PRE-COMMITMENT TO HEDONIC LUXURIES FOR CHOICES AND EVALUATIONS OF LOTTERIES

As we have shown above, although a substantial proportion of consumers choose hedonic luxuries over cash of equal of greater value, the majority still prefers cash over luxury items (between 87% and 61% in the various conditions). Indeed, choosing a luxury prize over a cash amount of equal or higher monetary value may be difficult to justify and, normatively, represents a sub-optimal preference. The dominance of cash over any specific reward is most transparent in side-by-side comparisons, such as the reward choice problems that we have used so far.

However, in many real world lotteries and other promotions that offer rewards, the only decision the consumer makes is whether to participate in that promotion, which often involves an investment of money, time, and/or effort. That is, there is a pre-determined reward, which might be a cash amount, a luxury, or a necessity. In such situations, when a single reward is evaluated on its own, the difficulty of justifying and psychological pain associated with selecting and consuming a luxury prize is diminished, because the "sin" inherent in such decisions (sacrificing necessary consumption) is less salient. Furthermore, as shown by Nowlis and Simonson (1997), "enriched" dimensions such as quality and enjoyment tend to receive greater weight in separate evaluations (e.g., ratings) than in comparison-based (joint) evaluations (e.g., choice), whereas "comparative" dimensions such as monetary value and price receive greater weight in comparison-based tasks (see also Hsee 1996). Thus, in situations in which a single reward is evaluated separately we expect that the impact of a luxury relative to a cash reward will be even greater.

> H5: The preference for luxury prizes relative to cash awards of equal or greater monetary value will be stronger in separate evaluations than in choice.

Study 6: Test of the Impact of Hedonic Luxury Rewards on Participation in a Real Lottery (H5)

We tested H5 in a study involving a real lottery and in three studies involving hypothetical lotteries. The results were similar in all cases, and we focus here on the study in which respondents could choose to participate in a (real) lottery, in exchange for giving up $2 in cash.

Method. One hundred and eighty three travelers, who participated in an unrelated study, were informed that, as a token of appreciation, they could either receive two dollars immediately or enter a lottery, in which the chances of winning were 1/100. They were randomly assigned to one of three tasks -- a choice condition or one of two separate evaluation conditions.

Participants assigned to the choice task (n=60) could enter a lottery that offered a choice between $200 in cash and a dinner-for-two certificate at a leading gourmet restaurant (maximum value = $200) (see Figure 6). The description of the luxury prize indicated that the dinner-for-two certificate could "be used to dine at any of the top 30 leading gourmet restaurants in the U.S. (based on recent restaurant ranking of Travel + Leisure Magazine; a choice of more than one restaurant in each of the major metropolitan areas)." If participants decided to forego the $2 and participate in the lottery, they were asked to indicate which of the two prizes they would prefer in case they win (supposedly in order to allow the lottery organizers to plan ahead). Participants in the separate evaluation task also indicated whether they preferred to receive $2 immediately or participate in the lottery. However, these participants were informed of just one reward, either the $200 dinner-for-two certificate at a leading gourmet restaurant (n=61; Figure 7) or the $200 in cash (n=62; Figure 8).

Insert Figures 6, 7, and 8 about here

In all cases, participants who chose to enter the lottery were instructed to tear the bottom half of the form and to keep it as a receipt. This lottery receipt contained a number and a Website address on which participants could verify whether they had won. Participants were told that "the actual lottery drawing will take place on September 29th 2000," approximately six weeks following the study.[3]

Results. Consistent with H5, the preference for the hedonic luxury reward (the gourmet restaurant $200 certificate) relative to the cash award ($200) was greater in the separate evaluation conditions than in the choice condition. Specifically, in the choice task, 22% (13 out of 60) of consumers chose the dinner-for-two certificate (maximum value = $200), whereas 53% (32 out of 60) chose the $200 in cash ($p < .005$; the remaining consumers chose to keep the $2). Conversely, in the separate evaluation tasks, 84% of consumers (51 out of 61) chose to enter the lottery (forgoing the immediate $2) when the prize was a dinner-for-two certificate (maximum value = $200), compared to 65% (40 out of 62 consumers) who chose to enter the lottery when the prize was $200 in cash ($\chi^2 = 5.8$; $p<.025$). The results in the separate evaluation conditions also demonstrate that a hedonic luxury reward can produce higher participation in a lottery (that has a monetary cost) than a cash reward of the same value.

[3] Somewhat to our surprise, the two winners claimed their reward (both received $200 in cash).

These results were replicated in three studies that employed a similar design but involved hypothetical rather than real lotteries. In all cases, hedonic luxury rewards were more effective than cash rewards of equal or greater value in inducing participation in a lottery, although a majority of consumers chose the cash over the luxury in direct choice conditions. For example, the results of the choice task in one study indicated that 25% of respondents chose a vacation package to Europe (valued at $2,900), whereas 58% chose $3,000 in cash ($p < .01$; the remaining respondents refused to pay $3 in order to enter a lottery with 1 in 50 chance of winning). Conversely, in the separate evaluation tasks, 83% of respondents chose to participate in the lottery (for $3) when the prize was a vacation package to Europe (valued at $2,900), compared to 63% who chose to participate when the prize was $3,000 in cash ($\chi^2 = 8.7$; $p < .01$). These results suggest not only that (attractive) luxury rewards *can* be more effective than cash, but also that they *tend* to be more effective (despite taste heterogeneity).

GENERAL DISCUSSION

In their daily lives consumers allocate resources to necessity consumption such as food and health, to more luxurious non-essential items that go beyond the indispensable minimum and tend to be more enjoyable, and to savings. Balancing global spending on necessities, luxuries, and savings can be a difficult task, unless the consumer has *un*limited or *very* limited resources. It requires the consumer to aggregate many local choices made over time and, based on this, decide whether selecting a non-essential luxury in a particular case is justified. Furthermore, consistent with analyses from philosophy, sociology, and economics (e.g., Berry 1994; Maslow 1970; Scitovsky 1992; Weber 1998), for many consumers, spending on necessities has a distinct advantage over luxuries in local choices because one cannot do without necessities whereas spending on luxuries is often seen as wasteful, irresponsible, and even immoral. While this analysis likely depends on cultural norms, the tension between the global desire to include hedonic luxuries in one's life and the difficulty of allocating resources to such items in local decisions can lead to chronic underconsumption of luxuries. If recognized, this imbalance calls for deliberate self-control tactics, such as irreversible pre-commitments to hedonic luxuries. In the present research, we tested these propositions using alternative methods and process measures, and examined the conditions that facilitate this form of self control (see Table 2 for a summary of the studies).

Key Findings and Theoretical Implications

In a series of studies, involving both real and hypothetical choices, we showed that many consumers recognize their "weakness" for necessities and savings and, consequently, pre-commit to future hedonic luxury consumption by choosing a luxury prize (e.g., an expensive wine, a spa package) over cash of equal or greater monetary value. Furthermore, although most consumers prefer a necessity over a luxury reward of similar value, the share of consumers choosing a luxury item over cash is significantly greater than the share who choose a necessity over cash. Of course, not all consumers have difficulty choosing hedonic luxuries over necessities and savings, and some consumers spend on expensive luxuries beyond their means.

Our estimates of pre-commitments to luxury rewards were conservative in two ways. First, since taste heterogeneity applies to any particular award (e.g., a Caribbean cruise, a massage) other than cash, the choice share of a specific luxury reward tends to underestimate the tendency to pre-commit to hedonic luxuries. Second, in most studies, respondents made a direct choice between the luxury reward and the cash amount, making the cost of pre-commitment more transparent than it is in most real world situations. Indeed, the results of a study in which consumers made decisions regarding (real) lottery prizes indicated that the preference for luxury relative to cash prizes increases when consumers evaluate prizes separately rather than jointly. Consumers were significantly more likely to forego an immediate $2 compensation in order to enter a lottery when the prize was a $200 gift certificate for a gourmet restaurant than when the prize was $200 in cash. However, when the lottery offered a choice between these two prizes, a majority of consumers who chose to enter the lottery selected the cash prize. This pattern suggests that consumers find it easier to select and consume luxuries when the "sin" inherent in such decisions is less salient.

Process measures, including analyses of choice explanations and anticipated uses of cash rewards, provided support for the notion that such choices are motivated primarily by the desire to ensure consumption of hedonic luxuries and are based on consumers' recognition of their "weakness" for necessities. In particular, most respondents who chose a luxury over a cash prize of equal or greater value explained their choice as a pre-commitment to hedonic luxury consumption, often indicating that if they had chosen the cash, they would have spent it on necessary consumption. These results are consistent with the findings of another (unpublished) study, in which we asked respondents first to predict the preference of their best friend and then choose a lottery prize for this person. The results of this study indicated that respondents were more likely to choose a luxury prize for their best friend than for themselves, despite predicting that he/she would prefer the cash, and many of them explained this choice as an attempt to "force" their friend to have more fun.

We also identified conditions that promote pre-commitments to hedonic luxuries. In particular, consumers are able to choose luxuries over cash when the outcomes of their decisions are remote and less concrete (e.g., rewards are delayed or funded by an unexpected award) or when the shortage of hedonic luxury experiences is made salient. Thus, for example, consumers are more likely to choose a luxury over a cash award in a lottery when the odds of winning are lower. Similarly, when the consequences of their decision were delayed, consumers were more likely to pre-commit to a spa package over cash of greater value. This finding is consistent with the notion that many consumers plan (at a global level) to engage in future hedonic luxury activities but later reverse their decision when faced with more immediate, local considerations.[4] Further, because many consumers seem to recognize this intrapersonal conflict, they resort to luxury pre-commitments.

The findings of the various studies, including the process measures that we employed, allowed us to examine several possible alternative explanations for the finding that a significant share of consumers choose hedonic luxuries over cash of equal or greater value. These rival explanations include (1) random choice behavior, (2) savoring, (3) savings in transaction and search costs, (4) lower tax rates for in-kind compared to cash prizes, (5) attempts to safeguard against myopic uses of cash, and (6) perceptions that the stated retail values of luxury prizes are too low. None of these rival explanations were supported. First, the written choice explanations provided no evidence that any of these alternative accounts played a significant role in choices of luxuries

[4] Anecdotally, a winner in one of the real lottery studies, who originally chose a $200 gourmet restaurant gift certificate over $200 in cash, later reversed her choice indicating that "the $200 check plain and simple would be GREAT!" Thus, while luxury pre-commitments are normatively sub-optimal, for many consumers they may constitute the only chance of achieving an appropriate balance between luxury and necessary consumption. Furthermore, as this anecdote illustrates, in order for pre-commitments to be effective, not only should the decision precede its consequences, but it must also be binding.

over cash. For example, to the extent that savoring accounts for choices of temporally distant luxuries, we would expect respondents to explicitly mention the pleasure of anticipation among their choice considerations. That is, although verbal protocols (written explanations) may not capture all factors that actually influence consumer preferences, savoring is likely to be a conscious consideration that is explicitly mentioned, to the extent that it plays any role in the decision. Also, the fact that many of the respondents predicted that a cash award would be spent on necessities and that this prediction enhanced the likelihood of pre-committing to luxury is consistent with our analysis but not with the rival accounts. Beyond the analysis of the written choice explanations and the anticipated uses of the rewards, the finding that consumers are significantly more likely to choose luxury items over cash as opposed to necessity items (of similar value) over cash is inconsistent with the alternative explanations relating to random choice behavior, transaction costs, tax rates, and myopic uses of cash.

The results of this research can be seen in a broader context of situations in which there is tension between global and local decisions and the strategies that consumers employ at either the global or local level to achieve their goals. One example is the concept of melioration (e.g., Herrnstein and Prelec 1991), which distinguishes between actual choices made in specific points in time and “choices” which are an aggregate of many smaller (local) decisions distributed over a period of time. Melioration implies that “distributed choices” of the latter type may be systematically suboptimal, in terms of the consumer’s own (global) preferences.

Another form of inconsistency between global preferences and local choices, which is related to melioration and is particularly relevant to the present research, is myopic self-control problems, such as failures to resist temptations and spending beyond one's means (e.g., Ainslie 1975; Gibbs 1997; Loewenstein 1988; Schelling 1984; Thaler and Shefrin 1981; Wertenbroch 1998). Such problems relate to people's actions that can be seen as irresponsible weaknesses. Conversely, in the present research we highlighted consumer behavior that can be seen as reflecting hyper-responsibility and exercise of over-control that leads to under-consumption of hedonic luxury temptations. Furthermore, over-control (“hyperopia”) can lead righteous consumers not only to underconsume luxury goods but also to overwork and deprive themselves of other hedonic experiences. For example, Loewenstein (1999) notes that many academics require elaborate self-control strategies to take a break from their work, such as booking expensive, nonrefundable vacations. Similarly, the *Wall Street Journal* (2001) recently warned its readers against the tendency to overwork and postpone vacations, arguing that this tendency is both widespread and hazardous to one’s health.

It is important to emphasize that myopic and hyperopic self-control problems can co-exist, not only across individuals, but also within an individual. The same consumer might have difficulty resisting cigarettes and chocolate cakes or might over-spend on clothing, yet also have a tendency to over-control hedonic luxury experiences. Future research might investigate the relations between myopic and hyperopic (far-sighted) self-control problems and examine the factors that moderate susceptibility to each, such as context and task characteristics (e.g., type of consumption, cognitive and/or motivational resources), individual differences (e.g., demographics, awareness of self-control problems, time-perspective, religious beliefs, propensity to feel guilt), and cultural norms.

Practical Implications

Beyond the theoretical significance of understanding consumer decisions regarding nonessential hedonic luxuries, this issue has important practical implications for (1) the design of market institutions that enable and promote pre-commitments to hedonic luxuries, (2) marketing communications, (3) workforce motivation, and (4) consumer promotions, such as sweepstakes, loyalty programs, and web currencies.

The finding that some consumers employ pre-commitments in order to increase their acquisition and consumption of hedonic luxuries suggests that marketers can strategically construct market institutions that address this need and charge a premium for doing so. For example, time-sharing developments, which offer the right to stay at a resort for a week each year, may benefit from consumer need for pre-commitment. Marketers of other luxury and leisure related products and services can use similar pre-commitment devices that essentially operate as "non-convertible futures" in which the consumer pays at t=0 for the guaranteed and "free" consumption of a hedonic luxury experience at t=1.

The notion that consumers may recognize the imbalance in their lives, whereby they do not have enough fun and luxury, suggests that marketers of luxury goods and services may increase their sales by emphasizing in their communications the shortage of hedonic luxury experiences. For example, a recent television advertisement run by a cruise liner urged consumers to stop postponing their dream cruise till next year and take one now. Furthermore, marketers can prompt consumers to recognize the (over)frugality of their friends and family, thus using gift giving as a means of promoting luxuries. Indeed, an article in Business Week (12/1/97, p. 42) reviewed the shift in Christmas gifts from practical goods to more hedonic presents, such as massages, travel, and entertainment.

The current paper also has implications for the design of employee incentive programs (e.g., sales force compensation). In particular, the results of the (real) lottery, in which luxury rewards were found to be more effective than cash in inducing participation, suggest that companies may be able to attract and retain talent better by offering luxury prizes rather than cash bonuses of equal or greater monetary value (see also Thaler 1985, 1999; Frank 1999). Indeed, in the high technology industry, where competition for talented software engineers remains intense, a number of companies have recently began offering "free" BMW sedans to new hires and other employees who remain with the company some qualifying period (e.g., Interwoven.com and Arcnet.com). Relatedly, a survey conducted in 1998 by Incentive Magazine (cited in Sales & Marketing Management, January 1999) asked 555 salespeople which incentive they would find more motivating – a $1,500 cash bonus or a travel or merchandise award worth $1,500. Consistent with the results of the present research, 20% of the salespeople chose the travel or merchandise award over the cash.

In addition to employee incentive programs, the present research also has implications for the design of consumer promotions, such as sweepstakes, loyalty programs, and gift certificates. Such promotions, in which consumers can win rewards, are widely used by companies both online and offline. A common question raised by mangers responsible for designing such promotions and by market researchers (e.g., discussed in JupiterResearch.com, 3/8/2000) is whether to use cash or in-kind rewards. Furthermore, some companies advocate cash as the best promotional currency (e.g., Cybergold.com and Discover® Card Cashback Bonus® Award), while others emphasize in-kind rewards (e.g., FreeRide.com and American Express Membership Rewards). Although heterogeneity in consumer tastes must be taken into account, the results of the current research suggest that hedonic luxuries may serve as better rewards than cash, especially when consumers are evaluating rewards separately.[5] Indeed, the advent of so-called

[5] In a recent West-Coast radio program, a random listener won $1,000 in cash. When the exuberant winner was asked what she was going to do with the cash, she replied: "Oh, just save it for college I guess." Our

Web currencies (e.g., "Flooz" and "Beenz"), which can be spent primarily on hedonic consumption and cannot be converted to cash, suggests that both gift giving and consumer promotions are more attractive when recipients are locked into hedonic, luxury consumption.

The finding that preferences between luxury and cash prizes may reverse as a function of the evaluation mode (joint vs. separate) suggests decisions regarding promotional rewards should take into consideration the manner in which consumers will evaluate these promotions. For example, a recent study by Jupiter Research, which used a choice (joint-evaluation) design, reached the conclusion that for some segments cash is the best redemption offering. However, had the analysts used a different methodology, in particular separate evaluations, the results could have been remarkably different.

The Talmud asks "*Who is a hero*?", and answers, "*He who can overcome his desire*." Indeed, it might take a hero to overcome not only temptation, but also the urge to always do the right, responsible thing.

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hunch is that this listener would be happier and would create greater word-of-mouth had she been "forced" to receive a luxury prize.

Appendix A: Two Additional Examples of Choice Task and Stimuli

Sweepstakes Choice

Imagine that you entered a sweepstakes, where if you win, you will receive one of the two prizes below. The actual lottery will be performed six months from today. You are asked to indicate, in advance, which prize you wish to receive in case you win:

Prize A: $3,000 in cash

Prize B: Two plane tickets to anywhere in Europe including hotel accommodations for one week (prize valued at $2,900)

Circle the prize you choose to receive in case you win:

A B

Lottery Choice

Imagine that you purchased a lottery ticket where the actual lottery will take place one month from today. However, you are asked to indicate, in advance, which one of the two possible prizes you prefer in case you win.

Prize A: $1,900 in cash

Prize B: A 4 day/3 night vacation package for two in Maui, Hawaii, including air & ground transportation and deluxe hotel accommodations (valued at $1,800)

Circle the prize you choose to receive in case you win:

A B

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Table 1: Analysis of Reasons Used by Respondents Who Chose the *Massage/Facial*

Reason (for choosing massage/facial over cash)	Percent of Respondents using this Reason
1. Choosing the facial/massage ensures or forces enjoyment, while the cash would be spent on necessities (e.g., bills; education); (i.e., luxury pre-commitment)	83%
2. "I need a massage/facial," "I love massage/facial"	13%
3. "Massage is more memorable/enticing," "Money is not everything," "Massage is unique/special/luxury"	5%
4. "It is a free facial/massage," "Free massages/facials are more fun than paid ones"	0%
5. "Would spend the money frivolously on nonsense such as gambling"	0%
6. "Massage/facial is already set up" (i.e., savings in transaction and search costs)	0%
7. Tax considerations	0%
8. The massage/facial is worth more than the stated retail value	0%
9. For someone else	0%
10. Something special for a chance lottery	0%

* Percentages do not sum up to 100% due to rounding errors

Table 2: Summary of Studies

Pre-Commitment to Hedonic Luxuries
Study 1: Tests of Choices of Luxury Over Cash Awards of Equal or Greater Value (H1)
Study 2: Pre-Commitment to Luxuries Versus Necessities (H2)
Moderators
Outcome Concreteness:
Study 3: Tests of the Effect of Time Horizon on Preferences for Hedonic Luxuries (H3)
Study 4: Tests of the Effect of Winning Odds on Preference for Hedonic Luxuries (H4)
Salience of Gap b/w/ Global and Local Preferences:
Study 5: The Effects of Anticipating Uses of Cash and Luxury Prizes (H5)
Process
Study 5: The Effects of Anticipating Uses of Cash and Luxury Prizes (H5)
Study 6: An Analysis of Consumer Explanations for Choosing Luxuries Over Cash
Consequence
Study 7: Test of the Impact of Hedonic Luxury Rewards on Participation in a Real Lottery (H6)

Figure 1: Pre-Commitment to Luxury --- An Analytical Framework

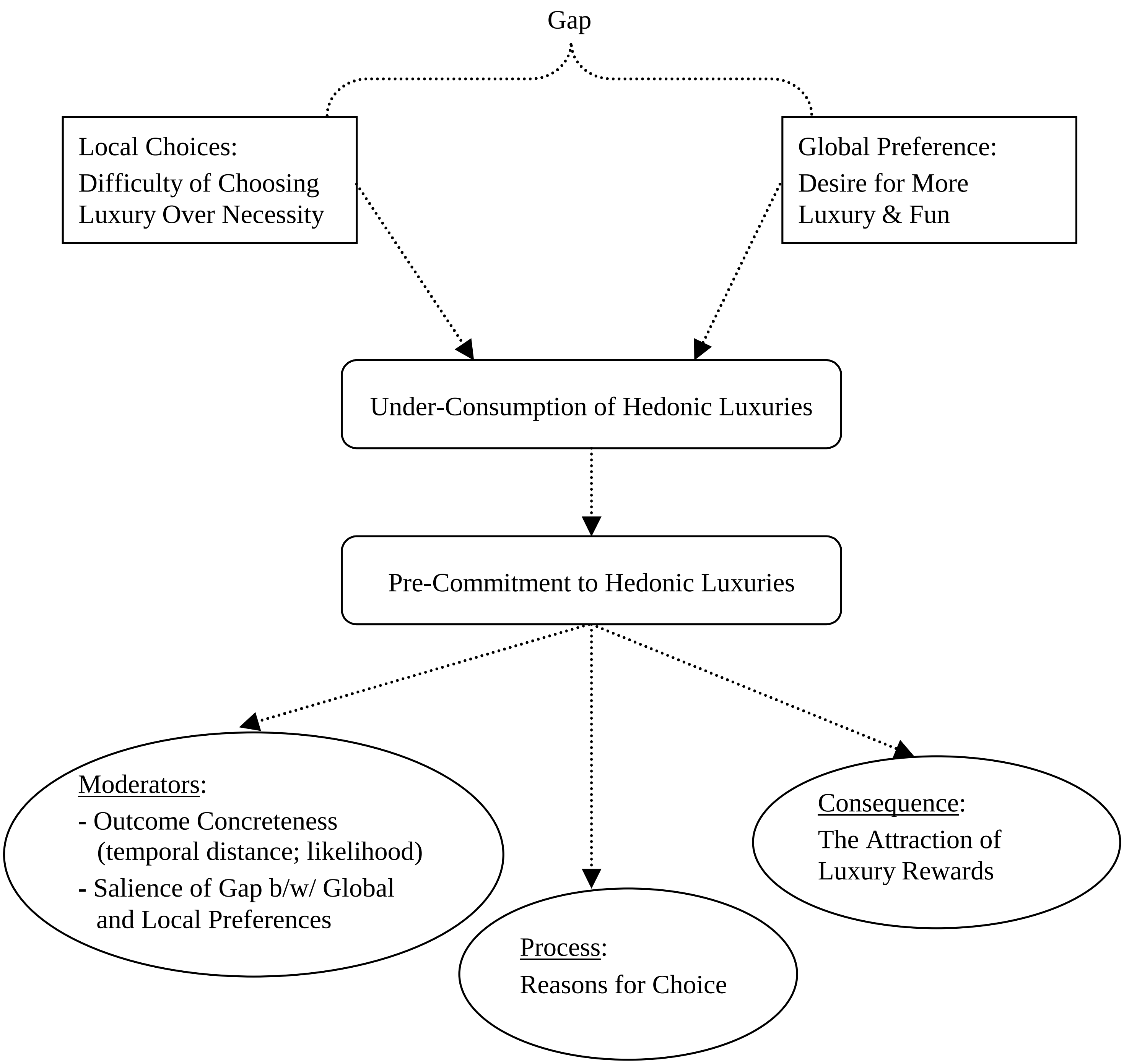

Figure 2a: Example of Choice Task

Lottery Choice

Imagine that you have paid $1 for a lottery ticket where if you win you will receive one of the two prizes below. The actual lottery will take place three months from today. You are asked to indicate, in advance, which prize you wish to receive in case you win:

Prize A: $200 in cash

Prize B: A dinner-for-two certificate at a leading gourmet restaurant (maximum value = $200)

Circle the prize you choose to receive in case you win:

A B

Figure 2b: Example of Choice Task

Sweepstakes Problem

Imagine that you entered a sweepstakes where if you win you will receive one of the two prizes below. The actual lottery will be performed three months from today. You are asked to indicate, in advance, which prize you wish to receive in case you win:

Prize A

$55 in cash

Prize B

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

Circle the prize you choose in case you win:

A B

Figure 3: Test (# 1) of the Effect of Time Horizon

Lottery Question

Imagine that you enter a *free* lottery where if you win you will receive one of the two prizes below. You are asked to indicate, in advance, which prize you wish to receive in case you win. The actual lottery will be performed one [nine] month[s] from today.

Prize A: Your choice of either a luxurious 1-hour facial cosmetic treatment **or** a 1-hour pampering Swedish or Sports massage (provided by a local upscale spa; **prize valued at $85** and valid for six months after lottery date)

OR

Prize B: $95 in cash

Circle the prize you choose to receive in case you win the lottery that will take place 1 [9] month[s] from today:

A B

Figure 4: Test of the Effect of Time Horizon Using Real Decisions (Long Delay Condition)

Thank you for participating in our study. As a token of our appreciation, we would like to offer you an opportunity to enter our lottery where if you win you will receive one of the two prizes below. In order for us to plan ahead, we ask that you indicate which prize you wish to receive in case you win. The actual lottery drawing will take place in about fourteen weeks, on September 29th, 2000 (see details on bottom of this page).

<u>Prize A:</u> $85 in cash (you decide how to spend the money – for example, at the supermarket, gas station, or at a *premium* day spa at a location of your choice).

<u>Prize B:</u> Your choice of either a luxurious 1-hour facial cosmetic treatment **<u>or</u>** a 1-hour pampering massage (maximum retail value = $80) at a *premium* day spa at a location of your choice (spa certificate provided by SpaFinder.com and is redeemable at your choice of over 500 *premier* day spas throughout the U.S.).

Circle the prize you choose to receive in case you win the lottery on September 29th, 2000:

A   B

270898/19

Please indicate city and state where you live: _______, ____

Figure 5: Test of the Effect of Winning Odds

Sweeptakes Choice

Imagine that you entered a sweepstakes where the actual lottery will take place one month from today. However, you are asked to indicate, in advance, which one of the two possible prizes you prefer in case you win. The chances of winning are one in fifty [million] (i.e., 1 person out of every 50 [1,000,000] people wins).

Prize A: $3,000 in cash

Prize B: Two plane tickets to anywhere in Europe including hotel accommodations for one week (**prize valued at $2,900** and valid for three years after lottery)

Circle the prize you choose to receive in case you win:

A   B

Figure 6: Test of Preference Reversal Using Real Decisions - Choice Task

Thank you for participating in our study. As a token of our appreciation, we would like to give you \$2, or if you prefer, you can use these \$2 to enter our lottery. If you prefer to enter the lottery, we ask that you indicate which of the two possible prizes below you wish to receive in case you win (in order for us to plan ahead). The actual lottery drawing will take place on September 29th, 2000 (1 out of about 100 participants will win; see details on bottom of this page).

Lottery Prize A	Lottery Prize B
A dinner-for-two certificate (maximum value = \$200) which can be used to dine at any of the top 30 leading gourmet restaurants in the U.S. (based on recent restaurant ranking of Travel + Leisure Magazine; a choice of more than one restaurant in each of the major metropolitan areas)	\$200 in cash

Circle your choice:	Enter Lottery	Enter Lottery	Get \$2 now
	Get Prize A	Get Prize B	

140548/19

If you chose the lottery, please indicate city and state where you live (so we can plan ahead):

_______, _____

Figure 7: Test of Preference Reversal Using Real Decisions - Separate Evaluation Task of Luxury Prize

Thank you for participating in our study. As a token of our appreciation, we would like to give you $2, or if you prefer, you can use these $2 to enter our lottery. If you prefer to enter the lottery, you will receive the prize below in case you win. The actual lottery drawing will take place on September 29th, 2000 (1 out of about 100 participants will win; see details on bottom of this page).

<u>Lottery Prize A</u>

A dinner-for-two certificate (maximum value = $200) which can be used to dine at any of the top 30 leading gourmet restaurants in the U.S. (based on recent restaurant ranking of Travel + Leisure Magazine; a choice of more than one restaurant in each of the major metropolitan areas)

Circle your choice: Enter Lottery Get $2 now

120670/05

If you chose the lottery, please indicate city and state where you live (so we can plan ahead):

_______, _____

Figure 8: Test of Preference Reversal Using Real Decisions - Separate Evaluation Task of Cash Prize

Thank you for participating in our study. As a token of our appreciation, we would like to give you $2, or if you prefer, you can use these $2 to enter our lottery. If you prefer to enter the lottery, you will receive the prize below in case you win. The actual lottery drawing will take place on September 29th, 2000 (1 out of about 100 participants will win; see details on bottom of this page).

<u>Lottery Prize</u>
$200 in cash

Circle your choice: Enter Lottery Get $2 now

261269/18

If you chose the lottery, please indicate city and state where you live (so we can plan ahead):

_______, ____

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