Self-Control for the Righteous: Toward a Theory of Precommitment to Indulgence

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Prior research has examined consumers' use of self-control to avoid hedonic (myopic) temptations, such as overspending and smoking. In this research we investigate the opposite form of self-control, whereby consumers force themselves to indulge and avoid default forms of spending on utilitarian necessities and/or savings. In particular, consumers who have difficulty choosing items that are perceived as indulgences or luxuries (e.g., a cruise) over necessities (e.g., saving for college education) and cash in everyday decisions may use precommitments to indulgence, especially when the psychological cost of such commitments 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 rewards over cash of equal or greater value; consumers typically explain such choices based on the need to precommit to indulgence, to make sure that the award does not end up in the pool of money used for necessities. In addition, consistent with our analysis, the likelihood of precommitting to indulgence 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 awards representing indulgence are more effective than cash as incentives for participation in a (real) lottery. The theoretical and practical implications of the results are discussed.

> It is largely our narrow, individual rationality that makes us miss part of the fun others get out of life. (Scitovsky 1992, p. 247)

> Your budget allows for living expenses, but does it allow for living? (Citibank's "Live Richly" ad campaign, 2001)

A fundamental trade-off 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 items representing indulgences or nonessential luxuries, such as a cruise, fancy food, or an expensive watch. Necessities can be defined as "items that cannot be done without; things that must be had for the preservation and reasonable enjoyment of life"; conversely, indulgence (or, items perceived as indulgence) represents "pampering oneself; yielding to the wishes, gratification, or desires of oneself (or another), as because of a weak will or an amiable nature" (*Webster's New World International Dictionary*, s.vv. "necessities" and "indulgence"). Indulgence is closely related to both luxury and hedonics, often involving spending on items perceived as luxuries relative to one's means; these items are typically hedonic rather than utilitarian.

A great deal of prior research has examined consumers' use of self-control to avoid hedonic temptations, such as overbuying, smoking, and eating tasty but unhealthy food (e.g., Baumeister 2002; Elster 1979; Hoch and Loewenstein 1991; Loewenstein 1996; O'Guinn and Faber 1989; Schelling 1992; Thaler 1980; Thaler and Shefrin 1981; Trope and Fishbach 2000; Wertenbroch 1998). This research proposes that consumers sometimes exercise the opposite form of self-control, whereby they force themselves to indulge in an attempt to avoid default forms of spending on necessities and savings.

Specifically, in trade-offs between necessities and indulgences (or 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 indulgences and necessities

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(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 suboptimal outcomes. In particular, although consumers may often find it less painful and easier to justify spending money on a necessity (e.g., Prelec and Loewenstein 1998; Thaler 1985), at a global level they may feel that they are neglecting the nonessential yet important benefits of indulgence that go beyond the indispensable minimum. Of course, the notion that consumers underindulge does not apply to all consumers, many of whom have no difficulty spending and overspending on items representing indulgence. Furthermore, the tendency of a particular consumer to under- or overindulge is likely to vary over time and across consumption categories.

However, in this research, we propose that a large segment of consumers do perceive themselves as having insufficient indulgence and seek ways to correct this imbalance in their lives. In particular, given their weakness for necessities, when faced with a choice between receiving (in the future) a reward perceived as indulgence and cash of equal or greater value, consumers may precommit to the indulgence. Such precommitments are not limited to consumers who regularly save and may also apply to those who overspend on necessities or to consumers whose spending and saving tendencies vary over time. We also propose that precommitments to indulgence 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 in favor of indulgence will take place in the distant future.

These propositions were tested in a series of studies, involving both real and hypothetical choices, with over 3,000 respondents. In these studies, we also examined alternative explanations for the results as well as consequences of consumers' desire to add indulgence to their lives. The theoretical and practical implications of the findings are discussed.

INSUFFICIENT INDULGENCE AND PRECOMMITMENTS: 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, Cantor, and Feldman 1996; O'Guinn and Faber 1989; Schelling 1978, 1984, 1992; Strotz 1955; Thaler and Shefrin 1981; Trope and Fishbach 2000; 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 this 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 indulgence when making local decisions, even when they 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 precommitment to indulgence. Furthermore, we examine the moderators of the magnitude of precommitment to indulgence 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 precommit to indulgence and show that awards representing indulgence are particularly effective inducements for consumer participation in marketing programs (e.g., sweepstakes). An outline of our conceptual framework is presented in figure 1.

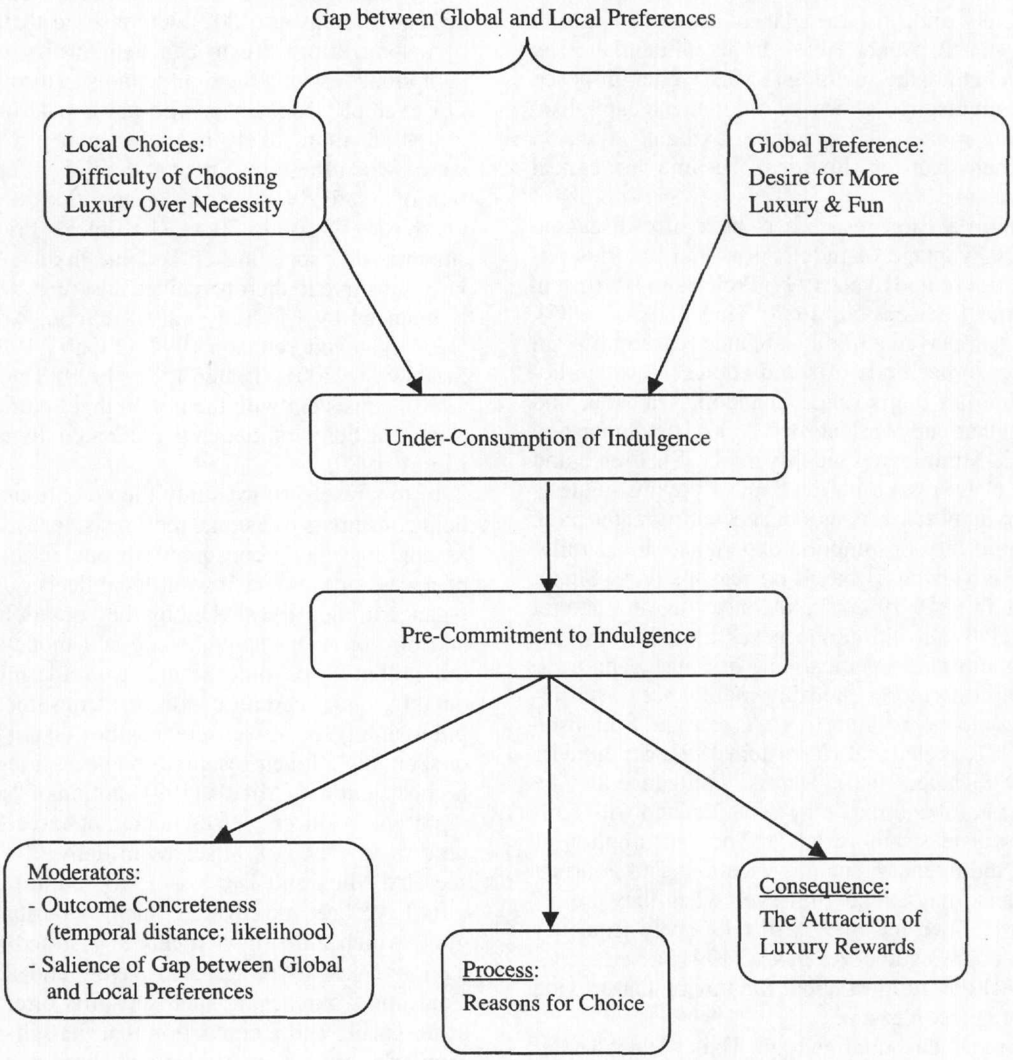
The Classic Self-Control Problem

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 "precommitment" and is part of what Schelling calls "anticipatory self-command." In explaining such precommitments, Schelling evoked the notion of multiple selves that exist at different times within the same individual (but see Hoch and Loewenstein [1991] and Loewenstein [1988, 1996] for a reference point account of myopic self-control problems that does not involve multiple selves). According to Schelling, there is a farsighted and conservative self that can anticipate that its myopic twin will not resist a drink at a party, for example. Therefore, this farsighted self increases the costs of consuming alcohol by precommitting 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 planning involves limiting the set of options from which the doer can choose (e.g., using a precommitment technique such as Christmas clubs).

Relatedly, Ainslie (1975) explains myopic self-control problems using hyperbolic (i.e., nonexponential) 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 precommitment device that irreversibly constrains future behavior so that an earlier-smaller alternative cannot be obtained when it is proximal

FIGURE 1

PRECOMMITMENT TO INDULGENCE—A CONCEPTUAL FRAMEWORK



and tempting (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 nonexponential discounting perspective is consistent with the multiple-selves analogy discussed earlier.

As indicated, we propose that precommitment as a means for self-control also applies to the opposite form of self-control, namely, the need to force oneself to indulge and spend on items that one can do without but which enrich and enhance the quality of life. It is noteworthy that the same consumers may feel a need to exercise both forms of self-control: avoid certain temptations (e.g., smoking, oversleeping) but increase other forms of indulgence (e.g., going to gourmet restaurants and taking vacations). Next, we examine more closely the bases for the proposition that people indeed face such a hyperopic (or farsighted) self-control problem.

Choosing between Necessities and Indulgences

Philosophers, sociologists, and political scientists have discussed the lower status of luxury and indulgence relative to necessity 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 indulgences and luxuries relative to necessities (e.g., Kivetz 1999; Prelec and Herrnstein 1991; Prelec and Loewenstein 1998; Thaler 1980, 1985). This issue has also played a role in a related research stream dealing with consumer trade-offs and choices between hedonic and utilitarian items (e.g., Chandon, Wansink, and Laurent 2000; Dhar and Wertenbroch 2000; Hirschman and Holbrook 1982; Strahilevitz and Myers 1998). Prelec and Loewenstein's (1998) work on the pain of paying suggests that paying for indulgence 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), indulgences are at a natural disadvantage relative to utilitarian necessities, because the latter have the ultimate justification—one just cannot do without them. Furthermore, choosing indulgences over necessities is likely to evoke guilt (e.g., Kivetz and Simonson 2002; Lascu 1991; Prelec and Herrnstein 1991; Strahilevitz and Myers 1998; Thaler 1980). That is, indulgence may be construed as wasteful and thus may be associated with feelings of guilt or at least ambivalence. The consumption or anticipation of indulgences, 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 spend enough on items perceived as indulgence. Thaler (1985) argues that the purchase of hedonically pleasurable items is often overconstrained 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 consumers often tend to overemphasize utilitarian necessities at the expense of items representing indulgence. Consequently, as we discuss next, consumers might seek opportunities where indulgence seems justified.

Conditions Promoting Precommitments to Indulgence

Previous research suggests conditions that promote choices of indulgences over 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 (2002) 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 20 vs. 10 times). Prior research also suggests that spending on hedonic luxury items is particularly sensitive to their perceived cost (e.g., whether spending is financed by windfall gains; see, 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 overcome their resistance to indulgence. We assume that many consumers recognize that the advantage of necessities and savings 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 precommit to indulgences to ensure that they do not end up selecting or spending all their resources on necessities. 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 2002). Consumers purchasing such self-gifts often evoke a theme of deserving and a conviction that the self-gift was earned. Similarly, given their tendency to limit consumption of hedonic luxuries in everyday life, consumers may feel that they have earned the right to indulge and be pampered.

Still, the difficulty of allocating resources to indulgence suggests that consumers may have to make irreversible precommitments 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 hedonic nonessential 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 precommit 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 forgo cash (or necessities) and to precommit to indulgence 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 outcomes are relatively abstract, the psychological cost or pain of choosing a (sinful) indulgence over the more easily justified option (e.g., cash) is lower. In other words, when the outcomes of decisions seem 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).

Temporal construal theory suggests that consumers are more likely to choose indulgence over cash (or necessity) when the consequences of the decision are less concrete and, in particular, are temporally distant. Specifically, desirability considerations, which loom larger in temporally distant decisions, are likely to highlight the goal of increasing indulgences in one's life, whereas feasability factors are likely to focus attention on preserving means (e.g., money, time, and necessities). Furthermore, this analysis highlights the importance of making irreversible precommitments; otherwise, when the time comes to actually give up cash or necessities for the sake of indulgence, consumers will be susceptible to a change of mind.

Relatedly, 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 Ebbesen 1970; Mischel, Ebbesen, 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 precommitment to indulgence. Accordingly, we predict that consumers will be more likely to choose indulgence over a cash reward when the odds of winning the reward are lower (see also O'Curry and Strahilevitz 2001; Rottenstreich and Hsee 2001). That is, low probability rewards are likely to be less concrete and to 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 reward perceived as indulgence and a cash reward of equal or greater monetary value, a substantial share of consumers prefer the former.

H2: Consumers will be more likely to precommit to indulgence (i.e., choose it over cash) when the time delay between the decision and the lottery is greater.

H3: Consumers will be more likely to precommit to indulgence when the odds of winning the lottery are lower.

METHOD OVERVIEW

We conducted a series of studies to test hypotheses 1–3 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 and 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, and a massage.

The noncash prizes were selected based on a pilot study in which 173 airport travelers rated 18 prizes on two five-point scales: pleasurable–practical and luxury–necessity. The correlation between the mean ratings of items on the two scales was 0.975, indicating that pleasurable (practical) items were also perceived as luxury (necessity). Accordingly, items representing indulgence in the studies described below were rated as both pleasurable (i.e., hedonic) and luxury, whereas necessity prizes were those rated as necessity and practical (i.e., utilitarian). Finally, in all the tests presented below, the positions of options on the page were counterbalanced, between-subjects, to control for any order or position effects.

TESTS OF PRECOMMITMENTS TO INDULGENCE

Study 1: Choosing between Indulgence and Cash of Equal or Greater Value (Hypothesis 1)

Hypothesis 1 proposes that a substantial proportion of consumers will choose a hedonic luxury reward representing indulgence (hereafter, "hedonic 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 hedonic luxury item and a cash amount. Although cash is not a typical necessity, it allows a particularly powerful test of hypothesis 1, because cash is almost universally desired. Conversely, due to taste heterogeneity, the preference for any particular hedonic luxury reward (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 precommit to hedonic luxuries is a conservative test of hypothesis 1. In a subsequent section, we report a study that tested hypothesis 1 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. Figure 2 presents 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, hypothesis 1 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.

Results. Consistent with hypothesis 1, 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. The appendix presents two additional problems in which 39% and 28% of the respondents chose a luxury over a cash award of greater value. A limitation of these results is that the share of respondents choosing any option might be greater than 0% due to "noise" (or error) alone. Accordingly, we use additional benchmarks and controls in the studies described below (e.g., the share of respondents choosing a necessity reward over cash).

In summary, consistent with hypothesis 1, the results indicate that substantial proportions of respondents prefer hedonic luxuries representing indulgence over cash amounts of equal or higher monetary values. Thus, by precommitting to indulgence, some consumers are effectively paying a premium in order to constrain their future choices. Next, building on the notion that many consumers recognize their tendency to underindulge, we test the hypothesis that precommitment to indulgence is more prevalent than precommitment to necessity by contrasting the proportions of consumers who choose a hedonic luxury over cash, a necessity over cash, and a necessity over a hedonic luxury. This test also allows us to rule out different alternative explanations for the high choice share of hedonic luxuries over cash.

Study 2: Precommitment to Hedonic 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 hedonic luxuries (of equal value). However, we argued that precommitment to indulgence (i.e., choice of a hedonic luxury over cash) offers an additional value by ensuring that consumers will not end up adding the cash 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 precommitment to indulgence. Conversely, for many consumers there is little need to precommit to necessities, since spending on such items is the default. This discussion suggests the following pattern of (intransitive) preferences for hedonic luxury (l), necessity (n), and cash (c) rewards: $P(l, c) > P(n, c)$, but $P(n, l) > 1/2$, where $P(x, y)$ = the proportion of the consumers who choose x from the set $\{x, y\}$. In other words, we expect that a greater proportion of consumers will choose a hedonic luxury reward over cash than a necessity reward over the same cash prize, yet in a direct comparison between a necessity and a hedonic 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 hedonic 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 hedonic 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

FIGURE 2

EXAMPLES 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

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

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% (seven out of 77 respondents) chose the grocery credit (valued at $70) over $80 in cash, a difference of 16% ($\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; $z = 2.2$; $p < .05$).

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 hedonic 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 overcontrol indulgence, a relatively large proportion of respondents precommitted to the hedonic luxury and selected it over cash.

These results also rule out certain alternative explanations for the high share of luxury over cash choices (see also "General Discussion"). In particular, if precommitment reflects other factors, such as random choices and savings in search/transaction costs that are unrelated to an attempt to correct for underindulgence, then we would expect to observe similar rates of precommitment to necessities. That is, the share of choices of necessity over cash can serve as a benchmark or control for assessing the rate of precommitment to indulgence (or luxury). 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. Yet, as this study shows, consumers are significantly more likely to choose a luxury over cash than a necessity over cash.

MODERATORS OF THE TENDENCY TO PRECOMMIT TO INDULGENCE

Although the results pertaining to hypothesis 1 are consistent with the notion of precommitment to indulgence, they do not directly test the psychological mechanisms underlying the observed choices. Thus, we turn now to an examination of a key moderator of this phenomenon, and subsequently, we use process measures to gain greater insights into the motives and choice process that lead to selection of indulgence over cash. Building on temporal construal theory (Liberman and Trope 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 precommit to hedonic luxuries. Specifically, hypothesis 2 and hypothesis 3 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 toward the goal of adding indulgence to one's life.

Study 3: The Effect of Time Horizon on Preferences for Indulgence (Hypothesis 2)

The prediction that consumers will be more likely to precommit to indulgence 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 hedonic luxuries was in the predicted direction and statistically significant.

Tests of Hypothesis 2 Using Hypothetical Choice Problems

Method. Respondents in three tests were randomly assigned to one of two conditions, representing two levels of reward delay (short vs. 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. 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.

Results. In all three tests, increasing the time delay between the decision and its consequences directionally enhanced the rate of precommitment 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 Hypothesis 2 (and Hypothesis 1) Using Real and Hypothetical Choices

A test of the prediction that consumers are more likely to choose a hedonic 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 hypothesis 2, using both real and hypothetical choices and a between-subjects design. This study also tests hypothesis 1 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) × 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 hedonic 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 would receive one of two prizes. 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 Web site 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.

The two prizes were (*a*) "a luxurious one-hour facial cosmetic treatment or a one-hour pampering massage (maximum retail value = \$80) at a premium day spa at a location of your choice" and (*b*) "\$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 (hedonic luxury) reward. The description of the hedonic luxury prize indicated that the spa certificate was provided by SpaFinder.com and was redeemable at over 500 premier day spas throughout the United States.

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 14 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 precommitment 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 14 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 14 weeks, 36% (24 out of 66) chose the spa package over the cash, an increase of 18% in the rate of precommitment 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 precommitment was statistically significant ($\chi^2 = 5.0$; $p < .05$).

Discussion. The findings of this study are noteworthy in three respects. First, consistent with hypothesis 2, they indicate that consumers are more likely to precommit to hedonic luxury items when the consequences of their decision are delayed. More generally, given the difficulty of justifying indulgence discussed earlier, consumers are more likely to precommit to selecting a hedonic luxury over cash when the concreteness and psychological cost of such precommitments are lower. Furthermore, the time-inconsistent preferences demonstrated in the test of hypothesis 2 support the notion that consumers may use precommitments because they recognize (at a global level) that they are overspending on necessities and underconsuming indulgence when making local decisions.

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 hypothesis 2, this study also supported hypothesis 1 with real choices, again showing that a significant proportion of respondents choose a hedonic luxury over cash of greater value.

Study 4: The Effect of Winning Odds on Preference for Indulgence (Hypothesis 3)

As discussed previously, less expected gains are likely to be less concrete and to be evaluated on a more global (abstract) level that is conducive to precommitments to indulgence. We test this prediction (hypothesis 3) 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 (one in 50 vs. one in 1,000,000). 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.

Results. Consistent with hypothesis 3, lowering the odds of winning increased the rate of precommitment to hedonic luxuries. When the odds of winning were one 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 one in 1,000,000 ($\chi^2 = 12.5$; $p < .001$). This finding supports hypothesis 3 and is consistent with the notion that consumers are more likely to precommit to indulgence when rewards are psychologically less concrete (or proximal).

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 anticipated 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 PRECOMMITMENTS TO INDULGENCE

Although the observed preference for luxury over cash prizes and the effects of time horizon and winning odds are consistent with the notion of precommitment to indulgence, they do not provide much insight into the underlying decision processes and motives. In this section we use process measures to test our explanation for precommitments to indulgence and examine the factors that motivate consumers to select seemingly dominated options. Further, building on our account for such precommitments, we test the hypothesis that consumers, who are explicitly asked to consider what they would do with a cash reward and a hedonic luxury reward, are more likely to precommit to the hedonic luxury reward.

Study 5: The Effects of Anticipating Uses of Cash and Luxury Prizes (Hypothesis 4)

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 disadvantages/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 hedonic 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 more indulgence 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 (vs. consumers who do not) will be more likely to precommit to indulgence (i.e., choose the luxury over the cash).

Method. Respondents were assigned to either a control group ($n = 280$) or a prechoice-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 four-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 hypothesis 4, anticipating prize uses before choice increased the rate of hedonic luxury precommitment from 14% in the control group to 24% in the use-anticipation group ($\chi^2 = 7.3$; $p < .01$). To gain further insights into the thought processes that underlie this result and examine an alternative explanation based on the notion that elaboration and imagination favors hedonic luxury rewards (e.g., Koehler 1991; McGill and Anand 1989), we analyzed respondents' forecasts of how they would use each reward. Two independent judges, who were unaware of the hypotheses, coded the prize uses predicted by respondents. The interjudge 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 choices, 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 indulgence 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 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 precommit to hedonic luxuries because it prompts them to realize that they would probably spend the cash on necessities.

Finally, contrary to the imagery explanation for the effect of anticipating prize use, the overwhelming majority of the anticipated uses of the cruise were very brief, with respondents simply stating that they would take the cruise. The results also reveal that the share of the cruise option was constrained by taste heterogeneity, again indicating that the observed rate of precommitment is conservative. For example, 25% of the respondents who chose the cash indicated

TABLE 1

ANALYSIS OF REASONS USED BY RESPONDENTS WHO CHOSE THE MASSAGE/FACIAL

Reason for choosing massage/facial over cash	Percentage of respondents using this reason[a]
1. Choosing the facial/massage ensures or forces enjoyment, while the cash would be spent on necessities (e.g., bills; education); i.e., precommitment to indulgence	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. "Massage/facial is already set up" (i.e., savings in transaction and search costs)	0
5. Tax considerations	0
6. Safeguarding against more frivolous and myopic uses of the cash (e.g., gambling)	0
7. The massage/facial is worth more than the stated retail value	0
8. Greater savoring of the massage/facial (i.e., anticipation utility)	0
9. The massage/facial will be given to someone else	0

[a]Percentages do not sum up to 100% due to rounding errors.

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 forgo the cash and precommit to the hedonic luxury reward. Next, to further test our account for luxury precommitments, we examine the choice explanations provided by respondents choosing between cash and luxury prizes.

An Analysis of Consumer Explanations for Choosing Hedonic Luxuries over Cash

We proposed that choices of hedonic luxuries over cash of equal or greater value reflect the difficulty of consumers in treating themselves to indulgence 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. Two independent judges, who were unaware of the study's predictions, coded the choice explanations provided by participants. The interjudge reliability was 91%, and disagreements were resolved by discussion.

Results. Different codes were used for participants who chose the hedonic luxury prize versus participants who chose the cash prize.[1] Among participants who chose the hedonic luxury reward (40 out of 124), 83% explained their choice as a precommitment to indulgence, 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 precommitments to indulgence were classified as such, whereas more ambiguous explanations were not. The following are examples of explanations for choosing the hedonic luxury item that were coded as reflecting precommitment to indulgence:

> 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 *have* 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.

Of course, we are not proposing that every participant who chose the hedonic luxury over the cash prize was aware of or even driven by precommitment to indulgence. However, the prevalence of such explanations supports the notion that 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 the cash over the hedonic luxury

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

reward (84 out of 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 confirm that the choice share of the hedonic luxury is constrained by taste heterogeneity and idiosyncratic characteristics of the particular in-kind prize used, suggesting that the observed rates of precommitment to indulgence 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 hedonic luxuries over cash prizes. First, some participants might have chosen indulgence over 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 hedonic 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., Elster and Loewenstein 1992; Loewenstein 1987).

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]

[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. Although the specific reasons for choice may differ somewhat across problems, precommittment to indulgence is the most common consideration in all cases.

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 have chosen for himself/herself and then made the choice for that person. The results indicated that (*a*) the share of the hedonic 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 hedonic luxury prize despite predicting that the recipient would have selected the cash prize for himself/herself, compared to the share of respondents who chose the cash despite predicting that the recipient would have selected the hedonic luxury prize, and (*c*) most choices of hedonic luxury rewards for others were explained as intended to force the recipient to engage in future pleasurable consumption (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 PRECOMMITMENT TO INDULGENCE FOR CONSUMER REWARD PREFERENCES

As we have shown above, although a substantial proportion of consumers choose hedonic luxuries over cash of equal or greater value, the majority still prefers cash (between 87% and 61% in the various conditions). Indeed, choosing a hedonic luxury prize over a cash amount of equal or higher monetary value may be difficult to justify and, normatively, represents a suboptimal 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 (e.g., sweepstakes), 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 usually a predetermined reward, which might be a cash amount, a hedonic 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 indulgence is likely to be diminished, because the "sin" inherent in such decisions (sacrificing consumption of necessities) is less transparent and salient. Furthermore, as

FIGURE 3

PREFERENCES FOR HEDONIC LUXURIES IN CHOICE VERSUS SEPARATE EVALUATIONS—THE 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 Get Prize A | Enter Lottery Get Prize B | Get $2 now

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

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 hedonic luxury prizes relative to cash awards of equal or greater monetary value will be stronger in separate evaluations than in choice.

Study 6: The Impact of Hedonic Luxury Rewards on Participation in a Real Lottery (Hypothesis 5)

We tested hypothesis 5 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 $2 immediately or enter a lottery, in which the chances of winning were one out of 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 fig. 3). The prize description 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 forgo 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$) or the \$200 in cash ($n = 62$).

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 Web site 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 hypothesis 5, 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.

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 hedonic 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 a one 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) hedonic luxury rewards can be more effective than cash, but also that they tend to be more effective (despite taste heterogeneity).

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

GENERAL DISCUSSION

In their daily lives consumers allocate resources to necessities such as ordinary food and health, to savings, and to items that are nonessential and often pleasurable, representing indulgence. Balancing global spending on necessities, savings, and indulgences can be a difficult task, unless the consumer has unlimited or very limited resources. It requires the consumer to aggregate many local choices made over time and decide whether indulgence in a particular situation 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 hedonic luxuries in local choices, because one cannot do without necessities, whereas spending on hedonic luxuries is often seen as wasteful, irresponsible, and even immoral. Of course, many consumers have no difficulty spending and even overspending on indulgence, and the tendency to feel guilt about indulgence is likely to depend on individual differences, cultural norms, and various situational factors (i.e., at different times, the same individual may over- or underindulge). Still, for many consumers, the tension between the global desire to include indulgence 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 precommitments 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 fig. 4 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, precommit to future indulgence by choosing a hedonic 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 hedonic luxury item over cash is significantly greater than the share who choose a necessity over cash.

Our estimates of precommitments to indulgence 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 hedonic luxury reward tends to underestimate the tendency to precommit to hedonic luxuries. Second, in most studies, respondents made a direct choice between the luxury reward and the cash amount, making the cost of precommitment 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 hedonic luxury relative to cash prizes increases when consumers evaluate prizes separately rather

FIGURE 4

SUMMARY OF STUDIES

Pre-Commitment to Indulgence

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

Study 2: Pre-Commitment to Luxuries Versus Necessities

Moderators

Outcome Concreteness:

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

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

Salience of Gap between Global and Local Preferences:

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

Process

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

An Analysis of Consumer Explanations for Choosing Luxuries Over Cash

Consequence

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

than jointly. Consumers were significantly more likely to forgo 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 precommitment to indulgence, 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 precommitments to indulgence. In particular, consumers are better able to choose hedonic 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 underconsumption of indulgence is made salient. Thus, for example, when the consequences of their decisions were delayed, consumers were more likely to precommit to a spa package over cash of greater value. This finding is consistent with the notion that many consumers would like to indulge but later reverse their decision when faced with more immediate considerations.[4]

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 sub-

[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!" As this anecdote illustrates, in order for precommitments to be effective, not only should the decision precede its consequences, but it must also be binding.

stantial 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 hedonic 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 hedonic luxuries over cash. For example, to the extent that savoring accounts for choices of temporally distant indulgence, we would expect respondents to explicitly mention the pleasure of anticipation among their choice considerations. That is, although verbal protocols 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 precommitting to hedonic luxuries 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 hedonic 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" that 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 for this 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 this research we highlighted consumer behavior that can be seen as reflecting hyperresponsibility and exercise of overcontrol that leads to underindulgence. Furthermore, overcontrol ("hyperopia") can also lead righteous consumers to overwork and deprive themselves of other hedonic experiences. Relatedly, Schor (1991) argues that capitalism has led the majority of working Americans to overwork and experience leisure as an unaffordable luxury. 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 coexist, not only across individuals but also within an individual. A consumer might have difficulty resisting cigarettes and chocolate cakes or might overspend on clothing yet also have a tendency to overcontrol indulgence. Future research might investigate the relations between myopic and hyperopic (farsighted) 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). It is also important to investigate the role of potentially relevant individual differences, such as prevention versus promotion orientation (e.g., Higgins 1998), demographics (e.g., gender, income), awareness of self-control problems, time-perspective, religious beliefs, cultural norms, and propensity to feel "luxury" guilt (e.g., Kivetz and Simonson 2002).

Practical Implications

Beyond the theoretical significance of understanding the causes, consequences, and remedies of insufficient indulgence, this issue has important practical implications for (1) the design of market institutions that enable and promote precommitments to indulgence, (2) marketing communications, (3) workforce motivation, and (4) consumer promotions, such as sweepstakes and loyalty programs. The finding that some consumers feel that they insufficiently indulge and employ precommitments as a self-control mechanism suggests that marketers can strategically construct market institutions that address this need and charge a premium for doing so. For example, marketers of luxury- and leisure-related products and services (e.g., time-sharing accommodations) can promote precommitment devices that essentially operate as "nonconvertible futures" in which the consumer pays at $t = 0$ for the guaranteed and "free" indulgence at $t = 1$. Marketers can also appeal to the desire for indulgence in their advertising. For example, a recent television advertisement run by a cruise liner urged consumers to "stop postponing your dream cruise till next year and take one now." Furthermore, marketers can urge consumers to help others (e.g., friends and family) have more fun and get over their frugality, using gift giving as a means of promoting indulgence. This advice fits with a recent trend in gift giving; according to an article in *Business Week* (1997), there has been a shift in Christmas gifts from practical goods to more hedonic presents, such as massages, travel, and entertainment.

This research has implications for the design of salesforce and other employee-incentive programs. 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 hedonic luxury prizes rather than cash bonuses of equal or greater monetary value (see also Thaler 1985, 1999; Frank 1999). Indeed, a survey conducted in 1998 by *Incentive Magazine* (cited in Alonzo 1999) asked 555 salespeople which incentive they would find more motivating—a $1,500 cash bonus or a travel award worth $1,500. Despite the direct comparison with cash and consistent with the results of this research, 20% of the salespeople chose the travel award over the cash.

This research also has implications for the design of consumer promotions, such as sweepstakes, loyalty programs, and gift certificates. An often discussed question (see, e.g., JupiterResearch.com [March 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., MyPoints.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 often serve as better (and less costly) rewards, especially when consumers are evaluating rewards separately.[5]

Thus, in addition to assisting consumers in controlling bad habits such as smoking, drinking, and overeating, marketers can (profitably) help consumers who insufficiently indulge and wish to have more fun in their lives. 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.

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

APPENDIX

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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REFERENCES

Ainslie, George (1975), "Specious Reward: A Behavioral Theory of Impulsiveness and Impulse Control," *Psychology Bulletin*, 82 (April), 463–496.

Alonzo, Vincent (1999), "Motivating Matters: Money Isn't Everything," *Sales and Marketing Management* (January), 28–29.

Arkes, Hal R., Cynthia A. Joyner, Mark V. Pezzo, and Jane Gradwohl Nash (1994), "The Psychology of Windfall Gains," *Organizational Behavior and Human Decision Processes*, 59 (September), 331–347.

Baumeister, Roy F. (2002), "Yielding to Temptation: Self-Control Failure, Impulsive Purchasing, and Consumer Behavior," *Journal of Consumer Research*, 28 (March), 670–676.

Berry, Christopher J. (1994), *The Idea of Luxury: A Conceptual and Historical Investigation*, New York: Cambridge University Press.

Forest, Stephanie A., Katie Kerwin, and Susan Jackson (1997), "Presents That Won't Fit under the Christmas Tree," *Business Week* (December 1), 42.

Chandon, Pierre, Brian Wansink, and Gilles Laurent (2000), "A Benefit Congruency Framework of Sales Promotion Effectiveness," *Journal of Marketing*, 64 (October), 65–81.

Chung, Shin-ho and Richard J. Herrnstein (1967), "Choice and Delay of Reinforcement," *Journal of Experimental Analysis of Behavior*, 10 (1), 67–74.

Dhar, Ravi and Klaus Wertenbroch (2000), "Consumer Choice between Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 37 (February), 29–44.

Elster, Jon (1979), *Ulysses and the Sirens: Studies in Rationality and Irrationality*, New York: Cambridge University Press.

Elster, Jon and George Loewenstein (1992), "Utility from Memory and Anticipation," in *Choice over Time*, ed. George Loewenstein and Jon Elster, New York: Sage, 213–234.

Frank, Robert H. (1999), "The Gasoline-Powered Raise," *New York Times*, June 30, A23.

Gibbs, Brian (1997), "Predisposing the Decision Maker versus Framing the Decision: A Consumer-Manipulation Approach to Dynamic Preference," *Marketing Letters*, 8 (1), 71–83.

Heath, Chip and Jack B. Soll (1996), "Mental Budgeting and Consumer Decisions," *Journal of Consumer Research*, 23 (June), 40–53.

Henderson, Pamela W. and Robert A. Peterson (1992), "Mental Accounting and Categorization," *Organizational Behavior and Human Decision Processes*, 62 (April), 38–54.

Herrnstein, Richard J. and Drazen Prelec (1991), "Melioration: A Theory of Distributed Choice," *Journal of Economic Perspectives*, 5 (Summer), 137–156.

Higgins, Tory E. (1998), "Promotion and Prevention: Regulatory Focus as a Motivational Principle," in *Advances in Experimental Social Psychology*, Vol. 30, ed. M. P. Zanna, New York: Academic Press, 1–46.

Hirschman, Elizabeth C. and Morris B. Holbrook (1982), "Hedonic Consumption: Emerging Concepts, Methods, and Propositions," *Journal of Marketing*, 46 (Summer), 92–101.

Hoch, Steve and George Loewenstein (1991), "Time-Inconsistent Preferences and Consumer Self-Control," *Journal of Consumer Research*, 17 (March), 492–507.

Hsee, Christopher K. (1996), "The Evaluability Hypothesis: An Explanation for Preference Reversals between Joint and Separate Evaluations of Alternatives," *Organizational Behavior and Human Decision Processes*, 67 (September), 247–257.

Kahneman, Daniel (1994), "New Challenges to the Rationality Assumption," *Journal of Institutional and Theoretical Economics*, 150 (1), 18–36.

Kahneman, Daniel and Jackie S. Snell (1990), "Predicting Utility," in *Insights in Decision Making: A Tribute to Hillel J. Einhorn*, ed. Robin M. Hogarth, Chicago: University of Chicago Press, 295–310.

Kahneman, Daniel and Amos Tversky (1979), "Prospect Theory: An Analysis of Decision under Risk," *Econometrica*, 47 (March), 313–327.

Kivetz, Ran (1999), "Advances in Research on Mental Accounting and Reason-Based Choice," *Marketing Letters*, 10 (3), 249–266.

Kivetz, Ran and Itamar Simonson (2002), "Earning the Right to Indulge: Effort as a Determinant of Customer Preferences towards Frequency Program Rewards," *Journal of Marketing Research*, 39 (May), 155–170.

Koehler, Derek J. (1991), "Explanation, Imagination, and Confidence in Judgment," *Psychological Bulletin*, 110 (3), 499–519.

Lascu, Dana N. (1991), "Consumer Guilt: Examining the Potential of a New Marketing Construct," in *Advances in Consumer Research*, Vol. 18, ed. Rebecca Holman and Michael Solomon, Ann Arbor, MI: Association for Consumer Research, 290–295.

Liberman, Nira and Yaacov Trope (1998), "The Role of Feasibility and Desirability Considerations in Near and Distant Future Decisions: A Test of Temporal Construal Theory," *Journal of Personality and Social Psychology*, 75 (July), 5–18.

Lipsey, Richard G. (1989), *An Introduction to Positive Economics*, London: Weidenfeld & Nicolson.

Loewenstein, George F. (1987), "Anticipation and the Valuation of Delayed Consumption," *Economic Journal*, 97 (September), 666–684.

——— (1988), "Frames of Mind in Intertemporal Choice," *Management Science*, 34 (February), 200–214.

——— (1996), "Out of Control: Visceral Influences on Behavior," *Organizational Behavior and Human Decision Processes*, 65 (3), 272–292.

——— (1999), "Because It Is There: The Challenge of Mountaineering . . . for Utility Theory," *Kyklos*, 52 (3), 315–343.

Maslow, Abraham H. (1970), *Motivation and Personality*, 2d ed., New York: Harper & Row.

McGill, Ann L. and Punam Anand (1989), "The Effect of Vivid Attributes on the Evaluation of Alternatives: The Role of Differential Attention and Cognitive Elaboration," *Journal of Consumer Research*, 16 (2), 188–196.

Mick, David Glen (1991), "Giving Gifts to Ourselves: A Greimassian Analysis Leading to Testable Propositions," in *Marketing and Semiotics: Selected Papers from the Copenhagen Symposium*, ed. Hanne Hartvig Larsen, David Glen Mick, and Christian Alsted, Copenhagen: Handelshøjslolens, 142–159.

——— (1996), "Self-Gifts," in *Gift Giving: A Research Anthology*, ed. Cele Otnes and Richard F. Beltramini, Bowling Green, OH: Bowling Green State University, 99–120.

Mick, David Glen and Michelle DeMoss (1990), "Self-Gifts: Phenomenological Insights from Four Contexts," *Journal of Consumer Research*, 17 (December), 322–332.

Mischel, Walter (1981), "Metacognition and the Rules of Delay," in *Cognitive Social Development: Frontiers and Possible Fu-*

tures, ed. John Flavell and Lee Ross, New York: Cambridge University Press, 240–271.

——— (1983), "Delay of Gratification as Process and as Person Variable in Development," in *Human Development: An Interactional Perspective*, ed. David Magnusson and Vernon L. Allen, New York: Academic Press, 149–165.

Mischel, Walter, Nancy Cantor, and Scott Feldman (1996), "Principles of Self-Regulation: The Nature of Willpower and Self-Control," in *Social Psychology: Handbook of Basic Principles*, ed. Edward T. Higgins and Arie Kruglanski, New York: Guilford, 329–360.

Mischel, Walter and Ebbe Ebbesen (1970), "Attention in Delay of Gratification," *Journal of Personality and Social Psychology*, 16 (2), 329–337.

Mischel, Walter, Ebbe Ebbesen, and A. Raskoff Zeiss (1972), "Cognitive and Attentional Mechanisms in Delay of Gratification," *Journal of Personality and Social Psychology*, 21 (2), 204–218.

Nowlis, Stephen M. and Itamar Simonson (1997), "Attribute-Task Compatibility as a Determinant of Consumer Preference Reversals," *Journal of Marketing Research*, 34 (May), 205–218.

O'Curry, Suzanne (1999), "Income Source Effects," working paper, DePaul University, Chicago, IL 60604.

O'Curry, Suzanne and Michal Strahilevitz (2001), "Probability and Mode of Acquisition Effects on Choices between Hedonic and Utilitarian Options," *Marketing Letters*, 12 (1), 37–49.

O'Donoghue, Ted and Matthew Rabin (2000), "The Economics of Immediate Gratification," *Journal of Behavioral Decision Making*, 13 (June), 233–250.

O'Guinn, Thomas C. and Ronald J. Faber (1989), "Compulsive Buying: A Phenomenological Exploration," *Journal of Consumer Research*, 16 (2), 147–157.

Prelec, Drazen and Richard J. Herrnstein (1991), "Preferences or Principles: Alternative Guidelines for Choice," in *Strategy and Choice*, ed. Richard J. Zeckenhauser, Cambridge, MA: MIT Press, 319–340.

Prelec, Drazen and George Loewenstein (1998), "The Red and the Black: Mental Accounting of Savings and Debt," *Marketing Science*, 17 (1), 4–28.

Rottenstreich, Yuval and Christopher K. Hsee (2001), "Money, Kisses, and Electric Shocks: On the Affective Psychology of Risk," *Psychological Science*, 12 (3), 185–190.

Schelling, Thomas C. (1978), "Egonomics, or The Art of Self-Management," *American Economic Review*, 68 (February), 290–294.

——— (1984), "Self-Command in Practice, in Policy, and in a Theory of Rational Choice," *American Economics Association Proceeds*, 74 (May), 1–11.

——— (1992), "Self-Command: A New Discipline," in *Choice over Time*, ed. George Loewenstein and Jon Elster, New York: Sage, 167–176.

Schor, Juliet B. (1991), *The Overworked American: The Unexpected Decline of Leisure*, New York: Basic Books.

Scitovsky, Tibor (1992), *The Joyless Economy*, rev. ed., New York: Oxford University Press.

Shafir, Eldar, Itamar Simonson, and Amos Tversky (1993), "Reason-Based Choice," *Cognition*, 49 (1–2), 11–36.

Simonson, Itamar (1990), "The Effect of Purchase Quantity and Timing on Variety Seeking Behavior," *Journal of Marketing Research*, 27 (May), 150–162.

Soman, Dilip (1998), "The Illusion of Delayed Incentives: Evaluating Future Effort-Money Transactions," *Journal of Marketing Research*, 35 (November), 427–437.

Strahilevitz, Michal and John G. Myers (1998), "Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell," *Journal of Consumer Research*, 24 (March), 434–46.

Strotz, Robert H. (1955), "Myopia and Inconsistency in Dynamic Utility Maximization," *Review of Economic Studies*, 23 (3), 165–180.

Thaler, Richard H. (1980), "Toward a Positive Theory of Consumer Choice," *Journal of Economic Behavior and Organization*, 1, 39–60.

——— (1985), "Mental Accounting and Consumer Choice," *Marketing Science*, 4 (Summer), 199–214.

——— (1999), "Mental Accounting Matters," *Journal of Behavioral Decision Making*, 12 (September), 183–206.

Thaler, Richard H. and Eric J. Johnson (1990), "Gambling with the House Money and Trying to Break Even: The Effects of Prior Outcomes on Risky Choice," *Management Science*, 36 (June), 643–660.

Thaler, Richard H. and Hersh M. Shefrin (1981), "An Economic Theory of Self-Control," *Journal of Political Economy*, 89 (April), 392–410.

Trope, Yaacov and Ayelet Fishbach (2000), "Counteractive Self-Control in Overcoming Temptation," *Journal of Personality and Social Psychology*, 79 (4), 493–506.

Trope, Yaacov and Nira Liberman (2000), "Temporal Construal and Time-Dependent Changes in Preference," *Journal of Personality and Social Psychology*, 79 (6), 876–889.

——— (2001), "Temporal Construal," working paper, New York University, New York, 10011.

Wall Street Journal (2001), "Working without Vacation Is Hazardous to Your Health," April 11.

Weber, Max (1998), *The Protestant Ethic and the Spirit of Capitalism*, 2d ed., Los Angeles: Roxbury.

Wertenbroch, Klaus (1998), "Consumption Self-Control by Rationing Purchase Quantities of Virtue and Vice," *Marketing Science*, 17 (4), 317–337.