



## Probability and Mode of Acquisition Effects on Choices Between Hedonic and Utilitarian Options

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### **Abstract**

We examine the effects of probability and mode of acquisition on choices between hedonic and utilitarian alternatives. The results suggest that the lower the probability of receiving the selected item, the more likely individuals will be to choose the more hedonic alternative in a choice set. Mode of acquisition (i.e., whether subjects are choosing in a windfall or a standard purchase situation) is also found to affect preferences, even when probability of acquisition is held constant. Hedonic options appear to be more popular as prizes than as purchases, whereas utilitarian options appear to be more popular as purchases than as prizes.

**Key words:** consumer choice, hedonic consumption, behavioral decision theory, anticipation

“Imagine it’s a winner—at least a half a million. He’d have spent it too. Would have been a mighty party!” Annie to Jackie in the 1999 movie *Waking Ned Divine*.

As most consumers know from experience, some types of consumption are more likely to evoke pleasure than others. Based in part on this observation, a distinction has been drawn between hedonic and utilitarian consumption (Hirschman and Holbrook 1982; Holbrook and Hirschman 1982; Strahilevitz and Myers 1998; Dhar and Wertenbroch 2000). Hedonic consumption is motivated by the desire for fantasy, fun and sensual pleasure and typically involves products or services that might be considered frivolous or even decadent (e.g., chocolate fudge). Utilitarian consumption is motivated by functional needs and typically involves products that are considered practical or necessary rather than pleasurable or fun (e.g., laundry detergent).

Recent work suggests that the differences between hedonic and utilitarian products can affect the way that these products are both acquired and consumed. For example, Wertenbroch (1998) has demonstrated that consumer self-control issues affect purchase patterns of what he terms “vices and virtues,” such that “vice” goods, which are typically

hedonic in nature (e.g., chocolate), are purchased in smaller quantities than “virtue” goods, which are typically utilitarian (e.g., rice). Wertenbroch also demonstrated that consumers are willing to pay a higher price per unit for vice products than for virtue products, in exchange for smaller packages that make it easier to limit total consumption of vice goods. More recently, Dhar and Wertenbroch (2000) have demonstrated that loss aversion is greater for hedonic attributes than for utilitarian attributes. Thus, items with higher values on hedonic attributes are less likely to be chosen in an acquisition scenario than they are to be given up in a forfeiture scenario.

In related work, Shiv and Fedorikhin (1999) demonstrate that subjects' preferences between a hedonic vice option (chocolate cake) and a relatively more utilitarian virtuous option (fruit salad) can be affected by processing resources. More specifically, when choosing between real options, the number of subjects choosing the chocolate cake was greater when the availability of processing resources was low than when it was high. However, this only occurred among those who scored high on a consumer impulsivity scale. When the subjects were presented with photographs of the alternatives instead of the real options, the percentage choosing the chocolate cake was the same regardless of the availability of processing resources for the task. These results suggest that the relative preference for a virtue (fruit salad) over a vice (chocolate cake) can be influenced by presentation mode (real or a photograph), mental resources (manipulated by varying the mental effort exerted in a preceding task preceding their decision) and individual differences (in impulsivity scores).

In the current paper, we introduce another situation in which hedonic and utilitarian choices might differ by examining the effects of probability and mode of acquisition on choices between hedonic and utilitarian alternatives. Our results suggest that lower probabilities of acquisition lead to an increase in preferences for hedonic alternatives. In addition, we demonstrate that, controlling for probability, selecting what to receive as a prize leads to more hedonic choices than selecting what to acquire as a purchase.

### **1. Anticipation Utility**

One of the ways that hedonic and utilitarian consumption might differ is in the amount of anticipation utility that is derived from each. Indeed, hedonic goods are not only more pleasurable to consume than utilitarian goods, but also more pleasurable to anticipate. Thus, one's mouth is more likely to water in anticipation of a delicious dessert than in anticipation of a prescribed dosage of cough medicine. Similarly, one is more likely to enjoy thinking about an upcoming concert than an upcoming meeting with one's accountant. In short, it is more fun to daydream about a hedonic experience that involves pleasure than a more utilitarian one that does not (Loewenstein 1987). The influence of anticipation is particularly relevant to understanding how probability of acquisition might affect preferences.

A large component of the utility of an uncertain positive outcome is simply anticipating the possibility of receiving it. Thus, we can derive pleasure from owning a lottery ticket, even if we do not win, because we enjoy imagining what we would do if we did win

(Loewenstein 1987). In contrast, in the case of definite gains, anticipation utility plays a relatively smaller role in the total utility obtained because consumers of definite gains are certain that they will experience their chosen outcome, rather than merely dream about the *possibility* of consuming it.

Although the utility of *knowing* you are getting something is clearly stronger when probabilities are higher, research suggests that *anticipation* utility is not reduced by low probabilities. Elster and Loewenstein (1992) note that savoring the pleasure of a possible prize is relatively insensitive to the actual low probabilities associated with lotteries and contests. Purchasers of lottery tickets are, in a sense, “buying a dream” (Landau 1968, cited in Elster and Loewenstein 1992) and that dream does not require *knowing* you are going to end up with a prize. Further evidence that probability does not increase anticipation utility comes from work by Vanhuele, Laurent and Chandon (1996). They demonstrate that the best predictor of whether consumers will buy a product with a promotional sweepstake is not whether they understand the odds of winning or of the value of the prize(s), but whether they have fantasized about the possibility of winning. Indeed, they found that those attracted to promotional lotteries did not think that they had a higher chance of winning than they did, or that the prizes were more valuable than they were. What distinguished those who were attracted to lotteries was simply that they had anticipated the possibility of winning, and enjoyed daydreaming about it, regardless of how likely or unlikely they were to get it.

This suggests that it is not just a chance at the utility of the prize itself, but also the utility of anticipation that comes with the mere possibility of winning that attracts individuals to lotteries. Therefore, standard calculations of expected value cannot capture the total value of a lottery ticket, and a more accurate estimate of the value of that ticket would incorporate the enjoyment derived from merely imagining the prospect of winning. Such a calculation would allow for the fact that lottery participants may derive enjoyment from simply being entered, even if they never win anything.

Related to this, in her examination of how spending patterns are affected by income source, O’Curry (1999) has shown that windfall gains are more likely to be spent on hedonic options. More specifically, compared to the spending of income obtained from tips and commissions, one’s regular base salary, which is a more predictable source of income, is more likely to be spent on utilitarian purchases, such as rent, utility bills and groceries. In contrast, tips and commissions, which are less predictable, are more likely to be spent on hedonic purchases, such as concert tickets, extravagant meals, and other forms of entertainment.

Together, the observations that unpredictable gains are more likely to be spent on hedonic goods (O’Curry 1999), that hedonic goods lead to greater anticipation utility than utilitarian goods (Loewenstein 1987), and that anticipation utility is not diluted by low probabilities (Loewenstein 1987; Vanhuele, Laurent, and Chandon 1996) suggest that increasing uncertainty will lead to stronger preferences for hedonic alternatives. More formally,

- H1:** Relative preferences for utilitarian goods over hedonic goods will increase as a function of the probability of receiving one’s choice.

## 2. The Effects of Mode of Acquisition on Consumer Preferences

Although consumers enjoy hedonic goods, they often express mixed feelings with respect to the acquisition and consumption of such products. This is due in part to the guilt that can occur during or after certain consumption experiences, particularly those that are of a hedonic nature (Lascu 1991; Strahilevitz and Myers 1998). Mode of acquisition, or how a good is acquired, could affect preferences between hedonic and utilitarian goods by influencing the degree of guilt consumers feel about the choices they make. More specifically, in the context of windfall gains, such as lottery prizes, unexpected bonuses, or gifts, acquiring a hedonic good may lead to less guilt over the frivolity of the acquisition than would be derived from spending one's hard earned income on the same hedonic good.

To illustrate, in the context of gift giving, Camerer (1988) has pointed out that although the most economically efficient gift would be something that the recipient would ordinarily buy for himself or herself, the perfect gift for most consumers is usually something relatively extravagant that they really want, but would feel guilty or silly buying for themselves. As Camerer (1988) describes, gift givers spend money on gifts differently from the way the recipients would spend that same amount, and gift recipients actually prefer it that way. Indeed, gifts such as chocolates, flowers, perfume and vacations are generally considered superior gifts to toothpaste, laundry detergent, toaster ovens, and refrigerators, even in contexts where the items on the latter list are needed by the recipients, whereas the items on the former list are not. Even in cases where cash is given as a gift, more often than not, it is given with instructions to get something "special" or decadent that they would not normally allow themselves (Douglas and Isherwood 1978). Indeed, even without instructions to get something decadent, Henderson and Peterson (1992) have shown that hedonic options are more likely to be preferred when the money to pay for them comes as a gift rather than a work-related bonus.

Given that windfall situations, such as gifts and lottery winnings, that do not involve spending one's own money appear to promote more hedonic choices, the following hypothesis is advanced.

**H2:** Relative preferences for hedonic goods over utilitarian goods will be more pronounced when the acquisition mode is a windfall than when it is a purchase.

In the first lab experiment, we test H1 and find that, as predicted, merely increasing the probability of acquiring a chosen alternative can significantly increase the probability that a utilitarian option will be chosen over a hedonic one of similar value. We next present the result of an experiment that tests and supports H2 by demonstrating that even when acquisition is certain, choosing a lottery prize will lead to more hedonic selections than choosing what to buy. Finally, we present the results of a field study carried out in a shopping mall with real shoppers as participants and actual purchases and choices of a lottery prize as the dependent measures. The results of this final study demonstrate that, even when the utilitarian alternative is a regular component of the consumer's budget (i.e., groceries from a local grocery store) and the hedonic alternative is not (i.e., an extravagant French dinner for two), preferences can be shifted toward the hedonic alternative by

changing both the acquisition context and the probability of receiving one's selection. We conclude with a discussion of possible reasons for such preference inconsistencies and implications for academic researchers as well as marketing practitioners. We also make several suggestions for future research.

### 3. Study 1

In the first study we examine whether in a non-purchase context, increasing the probability of acquisition leads to a stronger preference for utilitarian goods than for hedonic goods. In this study three levels of probability are examined.

#### 3.1. Method

Subjects were 119 undergraduate students at a large public West Coast university who participated in the study as part of an extra credit assignment. Subjects were assigned to one of three conditions in a single factor between-subject design. Each condition varied the probability of receiving the preferred outcome. The probabilities were 100%, 50%, and .01%. Subjects made repeated hypothetical choices between four pairs of goods, each of which comprised one hedonic and one utilitarian alternative of similar monetary value. In the uncertain conditions, subjects were told to answer the questions as if their choices would have no effect on whether they won or not.

The pairs of goods were (1) a luxury cruise or a new washer and dryer, (2) two tickets to any local outdoor concert or a \$60 gift certificate for any textbook at the university bookstore, (3) a \$200 gift certificate for a dinner for two at a well-known upscale French restaurant or a \$200 gift certificate for groceries and (4) 2 weeks in Hawaii including a stay at a 4-star hotel with a \$150 helicopter tour or a residency tuition waiver for two years with a \$150 textbook certificate.

Subjects were asked to assume complete financial independence such that they would not be otherwise covered for any expenses by their parents or anyone else. They were also instructed to imagine that they were in need of a new washer and dryer.

#### 3.2. Results

In each choice set, lower probabilities led to more subjects choosing the hedonic option in all four of the choice sets provided. Since no significant differences were found in responses for the different item pairs, the analysis presented here is based on pooled data. For the certain condition, the utilitarian alternative was chosen 54% of the time on average ( $n = 41$ ). At a 50% probability, the utilitarian alternative was chosen 42% of the time on average ( $n = 39$ ). Finally, at a .01% probability, the utilitarian alternative was chosen 24% of the time on average ( $n = 39$ ).

A binary logit analysis was performed on the aggregated data to test for the overall significance of probability. The dependent variable was a binary response variable with 1 indicating that the subject chose a utilitarian option and 0 indicating that they chose the hedonic option. The logit analysis was used to investigate the effect of probability (100%, 50%, .01%) on choice. Since each subject was given the same series of four choice sets with one hedonic and one utilitarian option in each, with only probability varying from condition to condition, we also controlled for the question or choice set. The independent variables included a factor with three levels (0.01%, 50%, and 100%). A blocking factor with four levels each indicating the particular choice set presented was also included. The results indicate that the factor for probability was significant (Chi-square = 3.56,  $p < .001$ ). These results were significant across all levels of the blocking factor, and support our hypothesis that greater probability will lead to stronger preferences for utilitarian options as compared with hedonic options.

These results indicate that subjects are more likely to indicate a preference for a hedonic alternative when the probability of actually receiving the alternative is lower. This study did not involve any descriptions of lotteries or purchase scenarios, but focused only on the effect of the stated probability of receiving one's choice. Thus, Study 1 supported H1 and demonstrated that, regardless of mode of acquisition, probability of acquisition affects preferences for hedonic versus utilitarian options. A second study was conducted to test H2. Rather than manipulating probability of acquisition in a non-purchase setting, Study 2 manipulated acquisition context with probability held constant.

## 4. Study 2

### 4.1. Overview

The second study was designed to test whether relative preferences for hedonic and utilitarian goods would differ under different acquisition modes, even when acquisition was certain. The acquisition modes in the study were choosing what to purchase and choosing what to claim as a prize. The study employed a single factor within-subjects design with acquisition mode as the independent variable. The dependent variable was the preference ranking of each item.

### 4.2. Procedure

Subjects were 50 undergraduate students who participated in the study in exchange for credit in an introductory psychology course at a large West Coast public university. A list of ten items, five utilitarian and five hedonic, was developed based on a pretest. All items were priced at \$60.00 at the time of the study. The utilitarian goods were a bicycle helmet, a scientific calculator, a book bag, a pair of Reebok sneakers, and a \$60.00 credit voucher for the textbook department of the local student bookstore. Hedonic goods included dinner for two at a well-known restaurant, a professional massage, a pair of tickets to a pop music

concert, a one-month membership at a posh local health club, and a \$60.00 credit voucher for Tower Records.

Subjects were given a booklet with two copies of the list of ten items on separate pages and asked to rank the items from most preferred to least preferred in two conditions as a purchase they were about to make, assuming price to be constant at \$60, and as a prize for a lottery they had already won. The order of conditions was counterbalanced so that half the subjects had the purchase condition first and half had the prize condition first. Regardless of whether they started in the prize or purchase condition, subjects were told that the second task was not a test of their memory for their answers on the first task. Ranking was done using a 1–10 scale, where a “1” indicated that the item was most preferred and “10” indicated that it was least preferred. Ties were not allowed.

#### 4.3. Results

The results were first checked for order effects. None were evident, so data from both orders were pooled. The ranks of hedonic and utilitarian items were summed separately for each condition and a Wilcoxon rank sum test compared the summed ranks for the hedonic items in each condition, yielding a  $Z$  of  $-2.85$ ,  $p < .005$ , supporting H2. Hedonic items were ranked as more preferred in the lottery condition than in the purchase condition (mean summed rank 23.6 in lottery, 27.08 in purchase). The test was repeated for utilitarian items and yielded a  $Z$  of 2.84,  $p < .005$  (mean summed rank 31.18 in lottery, 27.68 in purchase). All hedonic items were ranked as more preferred in the prize condition than in the purchase condition, although not every item reached significance individually. Similarly, all utilitarian items were ranked as more preferred in the purchase condition than in the prize condition. Results for individual items are in Table 1.

Table 1. Mean Ranks of Items, Study 2

	Win	Buy
Utilitarian Items		
Athletic shoes	5.02 (2.59)	4.42 (2.65)
Textbook credit	5.14 (2.59)	4.14 (2.29)
Calculator	6.06 (2.66)	5.28 (2.93)
Bookbag	6.46 (1.99)	5.64 (2.43)
Bike helmet	8.50 (2.00)	8.20 (2.55)
Hedonic Items		
Tower Records	2.96 (2.09)	3.34 (2.13)
Dinner	4.00 (2.02)	4.82 (2.24)
Concert	5.44 (3.04)	6.32 (2.76)
Health club	5.48 (2.86)	5.90 (2.72)
Massage	5.72 (3.11)	6.70 (2.90)
N = 50		

Based on a 1–10 ranking, where 1 = most preferred.

### 5. Study 3

Study 1 had held acquisition mode constant, while manipulating acquisition probability. The second study contrasted a prize context with a purchase context, holding probability constant. The final study held both acquisition mode and acquisition probability constant and examined consumers making real choices using a within-subject design. This field study was conducted in a grocery store using adult non-student consumers. Study 3 was specifically designed to examine whether consumers who usually spend more money on a given utilitarian alternative than on a given hedonic alternative might prefer the hedonic alternative in a probabilistic prize context.

#### 5.1. Procedure

Participants were 101 shoppers at a large supermarket in Northern California. Consumers were approached as they left the grocery store and asked whether they would participate in a brief study in exchange for being entered in a lottery with a chance to win a gift certificate valued at \$200. The shoppers who agreed to participate were asked if they were familiar with the well-known French restaurant across the street from the supermarket where the study was taking place. Only four respondents were unaware of the restaurant. The remaining 97 shoppers were asked five additional questions. First, they were asked whether in the past year they had spent more money at that supermarket or at the French restaurant across the street. Second, they were asked which place they visited more often in the past year. Third, subjects were asked whether they expected to spend more money at the supermarket or at the French restaurant in the next twelve months. Fourth, they were asked to indicate what prize they would like to receive if they were to win the raffle. Their options were a \$200 gift certificate for the French restaurant across the street or a \$200 gift certificate for the supermarket they were currently shopping at. They were informed that the raffle would be held with no more than 100 entrants, and that their prize selection would not affect their probability of winning since the winner would be determined by a single drawing of all of the entries. They were also told that we would purchase the actual gift certificate only after we had held the drawing. In addition, they were informed that regardless of which certificate they chose, if they won, they would not need to use the entire certificate at one time, as long as it was used within twelve months of receipt. Subjects were further informed that if they spend less than \$200 on the first purchase occasion, they would receive credit for the remaining value of the certificate for a subsequent purchase occasion.

#### 5.2. Results

Of the 97 consumers we surveyed, only one had spent more money at the French restaurant than at the supermarket in the past year. All of them had gone to the supermarket more often than to the restaurant in the past year, and all of them expected to spend more money



at the supermarket than at the French restaurant in the next twelve months. Nevertheless, eighty-four out of ninety-seven respondents preferred the gift certificate for the French restaurant to the gift certificate for the grocery store as a prize. The remaining thirteen preferred the supermarket gift certificate to the restaurant certificate. Clearly, for the vast majority of participants in this study, neither past purchase behavior nor future purchase expectations predicted lottery prize preference.

It is important to note that all questions dealt with the supermarket that participants had just shopped at and the French restaurant across the street. While all consumers expected to spend more money at the supermarket in the coming year, and all but one had spent more money there in the past year, the vast majority preferred the extravagant dinner for two as a prize. This is in spite of the fact that they were informed that they would not have to spend either certificate all at once and that they would have one year to spend the entire amount. These results add some external validity to the notion that probability of acquisition and acquisition mode can, at least when combined, affect relative preferences for hedonic and utilitarian options.

Unfortunately, this third study did not allow us to examine the interaction between acquisition mode and probability. It only allowed us to examine the combined effect of these two variables in a naturalistic setting. One might wonder if making the decision after finding out you were a winner would affect preferences in such a context. One might also wonder if being given an opportunity to buy either certificate at a discount could affect preferences for one certificate over the other. Future research examining the interaction between probability of acquisition and mode of acquisition would allow us to investigate the individual role of each variable. More importantly, it would give us an opportunity to learn how probability and acquisition mode interact to influence relative preferences for hedonic and utilitarian options.

## **6. General Discussion**

Study 1 demonstrated a strong preference for hedonic items when acquisition is uncertain. This was demonstrated holding mode of acquisition constant at three different levels of probability. It was found that the greater the probability of receiving a chosen alternative, the greater the proportion of subjects who prefer the utilitarian option to the hedonic one. The second study demonstrated that, even within subjects and holding probability constant, mode of acquisition can affect preferences. Preferences for hedonic alternatives were stronger when they were described as prizes, whereas preferences for utilitarian alternatives were stronger when described as purchases. The final study took a combination of both predictions to the field, thus supporting that similar results to those obtained in Studies 1 and 2 could occur in a naturalistic context examining the choices of non-student consumers. Taken together, the three studies demonstrate a distinct pattern of preferences for hedonic and utilitarian goods under different probabilities and modes of acquisition. When acquisition probabilities are low, hedonic goods are preferred to utilitarian goods. As probability of acquisition increases, so does the preference for utilitarian goods.

Furthermore, even when holding probability constant, hedonic options are more likely to be chosen as prizes than as purchases.

### *6.1. Implications*

One marketing implication of our result is that those marketers who promote their products and/or services with sweepstakes and/or other types of probabilistic premiums should not rely on general purchase preferences as an indication of what prize will have the greatest appeal. Indeed, our results demonstrate that preferences between hedonic and utilitarian attributes can be affected by whether respondents are choosing a “free” prize or choosing what to buy. Our results also suggest that the odds of receiving one’s chosen outcome can also influence such preferences, even in a “free” lottery prize contest.

In a similar vein, Chandon, Wansink, and Laurent (1999) have found that the relative appeal of hedonic as compared to utilitarian incentives depends on the nature (hedonic or utilitarian) of the product being promoting. Like prior work (Strahilevitz and Myers 1998), they find that the degree of complementarity with the product being promoted influences which incentive will be preferred. Similarly, the research presented here suggests that in conducting marketing research geared towards understanding consumer preferences, specifying both the mode of acquisition and the probability of obtaining one’s choice may be necessary for obtaining an accurate assessment of what will be most appealing to consumers in that context.

More specifically, our results suggest that basing conclusions regarding consumer preferences on responses of individuals who are asked to indicate preferences in scenarios where the probability that they will actually acquire their selected alternatives is less than one may lead to a higher proportion of individuals indicating a preference for more hedonic alternatives than would be observed if these individuals were certain that their options would affect what they receive. Since the actual probability of acquiring one’s chosen outcome was controlled for and held constant across conditions in all of our experiments, this factor could not have affected the differences we observed between conditions. If anything, the fact that the “certain” choices in our experiments were only “pretend” certain choices is likely to have diluted the results we obtained. Nevertheless, the general bias towards hedonic options in scenarios linked to the description of a very low chance of acquiring the options selected suggests that, especially when examining choices where options differ in their hedonic value, focusing on differences between conditions rather than on any general tendency for subjects to indicate preferences for hedonic options is particularly important.

In terms of theoretical implications, our results suggest that mode of acquisition and uncertainty regarding acquisition can influence the relative appeal of hedonic goods and utilitarian goods by affecting anticipation utility, acquisition guilt, or both. Other factors, such as a sense of needing to make a responsible choice could also play a role. Winning is generally attributable to luck, thus those making hedonic selections might feel that their choice of a hedonic alternative would be easier to justify if either acquisition is uncertain or the acquisition mode was a windfall context, such as a lottery prize. It is also possible that

the task itself may evoke a context for evaluation in which different attributes are more or less salient, as proposed by norm theory (Kahneman and Miller 1986). Thus, a windfall situation could spark hedonic appetites (Loewenstein 1996; O'Curry 1999). For example, in the context of choosing a prize, consumers might think to themselves, "This is a rare treat, so I should enjoy it!" In contrast, certainty and/or a purchase context might evoke a more utilitarian norm, such that consumers might think they should act as "smart shoppers". It is also possible consumers often practice some form of "mental accounting" (Thaler 1999; Thaler 1985) which allows them to treat resources differently depending on how they are labeled, with some accounts being viewed as more appropriate for extravagant expenditures. (See Kivetz (1999) for a discussion of the interaction of reason-based choice and mental accounting phenomena.) While we did not address norm theory, justification of choices, or mental accounting in the current research, these remain important areas for future work.

The work presented here complements prior work examining how preferences in choice differ from those implied by matching judgements. Indeed, much prior work has demonstrated that preferences inferred from choice are more likely to favor the option that is superior with respect to the more salient attribute such that attributes are weighted differently when alternatives are evaluated jointly or separately. (See Tversky, Sattath, and Slovic 1988; Hsee 1997; Nowlis and Simonson 1997; Hsee and LeClerc 1998; Hsee, Loewenstein, Blount, and Bazerman 1999.) Fischer, Carmon, Ariely, and Zauberman (1999), have introduced a task-goal explanation for the prominence effect. They suggest that the most prominent attribute receives more weight in tasks whose goal is to differentiate among alternatives than in tasks whose goal is to equate alternatives. In the current work, we demonstrate that even in the absence of differences in the need to differentiate or equate alternatives, task-goal effects can influence preferences in different acquisition contexts involving choice. The task of choosing a prize is definitely different from the task of choosing what to buy. Similarly, the task of choosing what to definitely acquire is quite different from the task of choosing what one *might* acquire in a low probability context. Different tasks can in turn lead to different goals becoming more prominent. For example, making a smart, practical or responsible choice may be more a prominent goal when involved in the task of choosing what to buy. In contrast, making a fun choice, which maximizes anticipation utility and the pleasure derived from fantasizing about an improbable outcome may be a more prominent goal when choosing in a windfall or low probability context, such as the selection of a lottery prize.

We have demonstrated that probability and mode of acquisition can each have a major effect on preferences for hedonic and utilitarian goods. Perhaps the greatest limitation to our research is that none of the studies addressed the interaction between probability and mode of acquisition. Furthermore, future work is needed to examine alternative explanations for the results observed. The greater preference for hedonic goods in uncertain situations and windfall contexts could be due to the pleasure of anticipation (Elster and Loewenstein 1992), to a tendency to feel less guilty about indulging due to norms involving windfall gains (Kahneman and Miller 1986), or to hedonic appetites sparked by a windfall or uncertain context. Disentangling these factors to examine both the individual

roles of each and how they affect one another is a direction for future research that we hope will give us a clearer understanding of the phenomena addressed in this paper.

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