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Are "fun" sources of windfalls destined to be spent hedonistically?

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Abstract

Recently, Richard Thaler was awarded a Nobel Prize for his work in developing Behavioral Economics. While much of economics assumes that people act rationally, Areily (2008), expanding on Thaler's body of work, proves that we are not only often irrational, but we are predictably irrational. When an interviewer asked Thaler how he would spend the roughly $1.1 million in prize money, he responded, "This is quite a funny question." Thaler added, "I will try to spend it as irrationally as possible." We know that affective tags for money exist but what specifically are those affective tags? More specifically still, is one of those tags for sources of income "fun," and if so, does that affect whether the money will be spent on fun? Classical economics would assume that satisfaction comes from the consumption of goods and services, that money is a medium of exchange, and that the source of that medium of exchange does not enter into the choice of the goods or services consumed. Thaler's (1999) works show that people create mental accounts, indicating that the source of the money may not be as completely irrelevant as classical economics predicted. This is important because where irrational behavior is suboptimal behavior, if we can anticipate it, we can construct environments to support better choices. We find that fun sources of income are significantly more likely to be spent on fun expenditures. However, as the amount of the windfall increases, the amount spent on fun levels off, indicating that this affect may be bounded. We were unable to find statistically significant support that more "adult" sources of income are more likely to be spent on more adult uses, but money from adult sources was significantly more likely to be invested. This is important because understanding more about affective tags and how they affect decisions to use money, we become better predictors of irrational behavior.

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1. Introduction

Economic researchers have traditionally assumed that people's behavior is rational. Classical economics would assume that satisfaction comes from the consumption of goods and services, that money is a medium of exchange, and that the source of that medium of exchange does not enter into the choice of the goods or services consumed. Dan Ariely's (2008) work asserts however that we are predictably irrational. However, while deviations from rational behavior abound, behavioral economics is relatively new and there is much to learn about how rationality is bounded and how people make financial decisions. Frederick (2005) found that the more cognitive reflection that occurred, the less nonrational behavior occurred. Thaler's (1999) work shows that people create mental accounts, indicating that the source of the money may not be as completely irrelevant as classical economics predicted. That is, there is much to be learned about how rationality and irrationality interact.

Specifically, we know that affective tags for money exist (Bradford, 2008; Henderson and Peterson, 1992; Levav and McGraw, 2009; Winkelmann et al., 2011,) but we do not know what specifically those affective tags are, nor do we know the strength of those tags. More specifically still, one of those affective tags for sources of income may be "fun," and if so, that may affect how the money will be spent. There may be a direct connection between the affective tag on income and the affective tag on the disposition of that income. This connection has yet to be directly studied. By understanding more about what affective tags are and how affective tags on income affect decisions to use money, we become better predictors of people's economic behavior.

Such understandings in aggregate can help lead people to create systems whereby they make better financial choices, which in turn reduces their financial stress and increases their wealth and quality of life. This research is important as part of a broader field of research because where irrational behavior is suboptimal behavior, if we can anticipate it, we can construct environments to support better choices. Alternatively, by understanding where irrational behavior may occur, policymakers may be able to provide alternative choices that may result in better outcomes. This research is important individually because as individuals better understand their own behavior, they can reflect upon it and adjust their behavior to better achieve their goals. For example, if a person knows that she generally receive a tax refund and she is prone to use such a windfall for adult purposes, she can incorporate a savings plan directly attached to that refund that will build her wealth more quickly than she currently does.

2. Literature review

According to Thaler's (1999) mental accounting theory, people create different mental accounts like long-term savings and have different marginal propensities to consume from each account. Academic literature supports mental accounting theory from a regular income flow or from an irregular, lump-sum, windfall (Adamopoulou and Zizza, 2017; Johnson et al., 2006; O'Curry, 1999; Souleles, 2002), and supports the periodic reconciliation of

people's mental accounts for income and expense (Camerer et al., 1997; Heath and Soll, 1996; Read et al., 1999; Rizzo and Zeckhauser, 2003).

Characteristics of the use of mental accounts have been studied by Karlsson et al. (1999), who reported that cash spending on a durable good depended on compatible reasons for saving. Abeler and Marklein (2016) and Benjamin (2006) found that math aptitude affects mental budgeting, and Cheema and Soman (2006) and Wertenbroch (2001), concluded that mental budgeting was a matter of self-control. Arkes et al. (1994) found that a greater percentage of a small windfall was spent than that from the same amount of anticipated ordinary income, indicating that foreknowledge of income is a factor in saving, supporting the findings of Rucker (1984) and consistent with the findings of Karlsson et al. (1999). Trump et al. (2015) found that individuals made riskier choices with a stranger's money than with a friend's money. Whether income was earned affected how compliant taxpayers were after a tax audit (Boylan, 2010), and whether earned income was a windfall or restores a status quo was found to be significant (Agarwal and Qian, 2014; Epley and Gneezy, 2007).

The size of the income can also be significant. Rucker (1984) studied the retroactive payment of a raise approved by a university, reversed by the Federal Pay Board but then reinstated by the U.S. Supreme Court and found that the size of the windfall was the most important factor for deciding how the funds were used, although the length of time that the recipient had to anticipate the income was also significant. Chambers et al. (2009) studied responses to small hypothetical tax rebates and found that at some amount over $600, materiality was significant in how the money would be used.

Karlsson et al. (1999) noted that individuals considered the future consequences of spending in their mental budgeting, indicating that the permanence of the income might be significant. Friedman's (1957) permanent income hypothesis says that people will spend money consistent with their perceived permanent income level. Similarly, Blinder (1981) posited that a permanent tax decrease would elicit more spending than a temporary tax cut. Parker (1999) found that a temporary, end-of-year reduction in the social security tax for high-income wage earners was spent when received, not averaged evenly over the fiscal year. Hsieh (2003) studied large, regular bonuses associated with the annual Alaska Permanent Fund payment, which was fully anticipated and found no spike in consumption. However, consumption by the same households was very responsive to income tax refunds, suggesting that predictable and regular payments are built into consumption decisions (Hsieh, 2003). Browning and Collado (2001) studied Spanish panel data to measure the effect of customary, predictable bonus payments and like Hsieh (2003), did not find changes in consumption.

In contrast, studies of the spending from nonrecurring, nonpermanent sources of income are fairly rare. Bodkin (1959) estimated the marginal propensity to consume from a one-time dividend paid in 1950 to World War II veterans by the National Service Life Insurance to be between 0.72 and 0.97. Kreinin (1961) analyzed the consumption of a sample of Israeli citizens receiving restitution payments from Germany in 1957 and 1958 and estimated that 35% was spent. Shapiro and Slemrod (1995) found that almost half of the respondents receiving decreased periodic tax withholding refunds in 1992 would spend them, even though the total yearly tax liability remained unchanged, resulting in a lower end-of year tax refund. However, in 2001, when a tax cut took the form of a lump-sum rebate, only about one-fourth of the respondents surveyed expected to spend the payment (Shapiro and

Slemrod, 2003). Chambers and Spencer (2008) found that the timing of payments (whether paid as a lump-sum or spread out in equal monthly installments for a year) was significant, and Sahm et al. (2012), confirmed that finding. However, whether people were in the habit of saving versus spending also mattered (Spencer and Chambers, 2012).

The framing of payments seems to matter: Baker et al. (2007) found that more money was spent from likely recurring income (dividends) than from less recurring capital gain income. Hershfield et al. (2015) found that consumers placed savings and debt into different mental accounts, making them insensitive to the significant differences between the interest rates on these accounts. Shefrin and Thaler (1988) found that more of a lump sum bonus was saved than if the same amount increased regular income, even when the bonus is fully anticipated.

(1) Is the source of the income important in mental accounting?

Windfall sources in prior literature include: inheritance (Baker and Nofsinger, 2002; Zagorsky, 2013), bonus (Henderson and Peterson, 1992; Hsieh, 2003), tax rebate (Chambers and Spencer, 2008; Meekin et al., 2015), and lottery (Winkelmann et al., 2011). Some evidence suggests that the source of one's income is important in mental accounting. Winkelmann et al. (2011) found that spending from different sources of income conferred different marginal utilities. Sources of income may be tied to uses of income. For example, Henderson and Peterson (1992) reported that individuals were more likely to spend $2,000 on a vacation if the source of the funds was a gift rather than a work bonus. Bradford (2008) found that individuals allocate gifted and inherited assets consistent with their goals in the relationship. Epley et al. (2006) found that people spent more from an income source of the same amount and timing labeled "bonus" than they did one labeled "rebate."

Milkman and Beshears (2009) found that consumers who received $10 windfalls in the form of grocery coupons spent an additional $1.59 on groceries that the consumer did not typically buy. Chambers et al. (2017) found that people given a hypothetical payment from one of five different sources would spend the funds differently, depending on the source of the money, and that less of the windfall would be saved overall from a game show payment than from a tax rebate. Similarly, Chambers et al. (2017) found that people tended not to shift away from their spending habits. The goal of this article, given that money is fungible, is to test to see whether the affective tag of the spending significantly mirrors the affective tag of the windfall source.

(2) Affective tags and mental accounting

Levav and McGraw (2009) proposed that windfalls in mental accounting may have a feeling attached to that sum of money, or "affective tag." They found that when a windfall that is negatively tagged is received, the associated negative feelings influenced respondents to consume the windfall either reluctantly or virtuously to cope with those negative feelings. O'Curry and Strahilevitz (2001) found that those receiving lotto payments spent it hedonistically. This study focuses on one of those questions: does an income source affectively tagged as "fun" result in significantly more spending on fun? Will less fun sources be used

more for less fun uses? Additionally, as a research question, how is the spending on fun bounded, if at all?

(3) Demographic factors

Several demographic factors might be significant. Chen and Volpe (2002) found that gender was significant to personal finance, but education and experience could have a significant impact on the financial literacy of both genders. Fisher et al. (2015) found that income, income uncertainty, wealth, high-risk tolerance, and savings also differed significantly by gender, as did being nonwhite and having other household members. Fisher (2010) found that certain race differences in savings were explained by the individual determinants of saving, including: receiving government assistance, feeling that credit use is bad, being turned down for credit in the past five years, or having a shorter saving horizon; race also significantly affected risk tolerance.

3. Hypothesis and research questions

This study examines whether people spend the same proportion of a distribution on fun categories when the windfall source is a fun source, like from a gameshow, as they do when the source is less fun, like from a tax rebate. This study examines the spending from tax rebates, game show winnings and bonuses, which might be a more neutral benchmark. Only windfall earnings will be explored, as literature indicates that amounts spent from windfall income is spent differently from one's regular income (Arkes et al., 1994; Karlsson et al., 1999).

How might the recipient consider these sources as similar or different? Tax systems are run by a government or its appointed agency and are largely outside the respondent's control, whereas bonuses and game show winnings are generally run by private enterprises and may have more elements of respondent's control. To what extent the money is "earned" is debatable, but bonuses and game show winnings require some personal skill, knowledge, and effort. Tax rebates sometimes differ from the other sources of payment because the tax rebate is a return of the taxpayer's withholdings. That is, outside of refundable credits tied to specific performance, respondents generally cannot materially profit from a tax rebate because it is a return of the taxpayer's own money already paid in but can profit from a game show winning or bonus. Some political rhetoric frames taxes as money belonging fundamentally to taxpayers, not the government, whereas bonuses and game show winnings come with less of an entitlement. Bonuses are likely to be closely tied to an individual's performance, however. Game show winnings might be as well, if the winner attributes success to having a higher skill level than fellow contestants. In addition, collecting a bonus or a tax rebate may be repeatable. One could not count on or control repeating a game show winning.

Additional differences in affective "euphoria" surround these payments. It is unlikely that there will be a TV commercial asking, "you just got a tax rebate, what are you going to do?" "I'm going to Disney World!" However, winning a game show, or perhaps even earning a bonus may be cause for celebration. If the mental frame of the windfall is celebratory, then

perhaps the spending will be directed more toward celebrations and fun than if the windfall was from a tax rebate. Alternatively, if the recipient were looking to brag about or show off their good fortune, they may be more likely to spend it conspicuously on fun than on regular household expenses. They may allocate more toward an infrequent expense such as a vacation, bigger holiday gifts, or something they have always wanted. Differences in the amount spent by classification and by source are to be expected, but no source is absolute and completely separate in characteristics from the other sources, biasing against finding any differences.

Basically, our hypothesis is that the more euphoric and hedonistic the source, like game show winnings, the more one would spend on fun. Alternatively, the more adult the source of the windfall, such as a tax rebate, the more one would allocate to more "responsible" uses, like investing in stocks and bonds, or household expenses and durable goods, such as a car or washing machine. In testing these hypotheses, the amount of the income in dollars and relative to household income, the amount of the payment, the respondent's habit of spending or saving, the order of presentation, the frequency of payments and the demographic characteristics of the respondents will be controlled for.

With that in mind, the null hypotheses are:

Hypothesis 1: There will be no difference in spending on "fun" by source of windfall.
Hypothesis 2: There will be no difference in allocations for regular expenses, credit card payments, durable assets or investing in stocks, bonds and savings account (adult uses of funds) by source of windfall.

Additionally, if either of these hypotheses produce significant findings, the sensitivity of the spending pattern will be analyzed to answer the research question:

RQ_1: Is the amount spent on fun or adult uses bounded at a fixed dollar amount or a relative percentage of the amount received, or is it relatively elastic?

This research question, we believe, has been previously unexplored in research literature and represents a contribution to the knowledge of the field.

4. Method

This study examined respondents' intended uses of hypothetical windfalls. Sheppard et al.'s (1988) meta-analysis of 86 theory-of-reasoned-action studies found a 0.53 correlation between intention and behavior, indicating that intent is a strong predictor of action.

In this study, the intended spending/saving patterns of respondents were gathered through 80 different paper-and-pencil instruments through students' professors at seven universities. Professors familiar with this type of research gathered the responses, sometimes providing a negligible amount of extra credit, and returned the responses to the authors. Each participant was given one of these 80 instruments at random, which contained identical questions except for the source of the income and the amount of the hypothetical cash transferred, and asked how she would use the funds, both if it were received as a lump-sum and if the same amount were received spread out over 12 equal monthly payments (within-subject design) from two

of these five sources: bonus, game show winnings, inheritances, lottery winnings, and tax rebates (between-subjects design). The amount of payments on the instrument was one of these four different amounts: $300, $600, $1,500, and $3,000. Some instruments presented the lump-sum amounts first and some presented the periodic amounts first to control for the order effect.

Consistent with Chambers and Spencer (2008), the instruments asked how much of a lump sum rebate would be used for: (1) investing, (2) paying off credit card debt, (3) paying off notes, (4) regular monthly expenses, (5) buying a durable asset, (6) saving for an infrequent expense, and/or (7) used for fun. The instrument also asked how much of a monthly payment, equal to one-twelth of the lump sum amount, would be used for each of these seven purposes. Similarly, the flip side of each instrument asked these same questions, changing only the source of the payment from one source to another—such as from a tax rebate to a game show payment.

Students were considered provisionally acceptable respondents per Walters-York and Curatola (1998) and Ashton and Kramer (1980). As such, instruments were distributed to university students at these institutions: Coastal Carolina University, Francis Marion University, Longwood University, Metropolitan State University of Denver, Texas A&M University – Corpus Christi, University of Alabama – Birmingham, and University of Houston – Clear Lake. Notably, at least four of these universities have a large nontraditional student population which adds external validity to this study beyond that expected from a traditional student population examined in the academic studies just listed.

All research questions were analyzed with descriptive statistics, and then were converted to a percentage of the total payment received for each of the seven categories: (1) investing, (2) paying off credit card debt, (3) paying off notes, (4) regular monthly expenses, (5) buying a durable asset, (6) saving for an infrequent expense, and (7) used for fun were coded as spending. Because the examples listed in category (6) were "a vacation, bigger holiday gifts, or something you've been wanting," the percentages for items (6) and (7) were added together as were the dependent variable for "Fun spending." The independent variables were Log of income, Materiality of payment, Spending default (that is whether the respondent habitually saves or spends unexpected money received), dummy variables for the total amount of payment, and dummy variables for the source of the windfall: game show winnings, bonus, or tax rebate. Demographic and other control variables were included to control for order effect, risk-taking variables gender, age, business experience level, and education level.

The complete regression model was of the form:

> Percent Spent on Fun = F(Income, Zero income, Amount, Education, Gender, Age, Importance, Seatbelt use, Smoker, Spend1, Experience level, dummy variables for the Source of the payment (tax rebate, bonus, or game show), and a dummy for the Order of presentation (monthly payment first, or lump sum payment first)).

"Income" is the log of the respondent's income plus one. "Amount" is the hypothetical amount of the distribution in dollars. Rather than use a continuous variable for the total payments, dummy variables were created for the four discrete payment amounts. Education was divided into four categories: high school, associate degree, undergraduate degree, and

graduate degree. "Gender" was a categorical male/female variable, where female was coded as "1." "Age" was the participant's age in years. "Materiality" was defined as the total payment divided by the income of the respondent. The "Seatbelt" and "Smoker" dummy variables were included as proxies for respondents' risk preference; seatbelt wearers and smokers were coded as "1." The "Spend1" variable is a measure of respondents' habit of using extra money; the respondents were asked "When you get 'extra money,' do you spend it or save it?" For those that answered "spend," the dummy was set to 1. In testing these hypotheses, the order of presentation and the frequency of payments were also controlled for. Interaction effects were also run as a control measure. Ultimately, the monthly payments were considered immaterial and dropped from the model.

Basic regressions were run matching the two extremes of (un)fun: tax rebate and game show winnings, but eliminating nonsignificant control variables except for Income, Materiality, Spend 1 and Level of payment. That model is:

Hypothesis 1: Percent Spent on Fun = F(Income, Materiality, Spend 1, dummy variables for Amount, and a dummy variable for game show).

Hypothesis 2: Percent Spent on Adult Sources = F(Income, Materiality, Spend 1, dummy variables for Amount, and a dummy variable for game show).

5. Results

There were approximately 1,800 returned instruments in total, of which 601 were usable and pertained to the tax rebate, bonus and game show sources of income. Most of the remaining instruments measured responses for inheritances and lottery winnings, which were not used in this analysis. Some of the instruments were not sufficiently completed, perhaps because some students were trying to get extra credit without doing the work, and because responses were anonymous, turning in a partially completed instrument would produce that effect. If we are correct in reading this situation, however, that would bias this study against findings because of the noise introduced in hastily completed instruments. Twenty-two of these observations had at least one missing value. The results of the regression are shown in Table 1.

As shown in Table 1, the results of this regression were highly significant at $p \leq 0.0005$, although the R^2 is 0.0652 and the adjusted R^2 is 0.0481. Likewise, the source of the payment was highly significant at $p \leq 0.0151$ and the coefficient was a positive 0.06933, indicating that respondents spent more on fun when they received the same amount of payment from a fun source (game show) than from a less fun source (tax rebate), and rejecting the null hypothesis 1. Materiality, which is the relative size of the total payment, was also statistically significant at $p \leq 0.0106$, however, the coefficient of 0.00009549 is economically quite low. The total amount of the payment for each dummy variable was significant at $p \leq 0.05$, with all amount coefficients being negative, indicating that the higher the payment, the less was spent on fun. Spend1, which was the dummy variable equal to one for those that indicated that they would normally spend extra funds, was significant at $p \leq 0.05$ as this would be a

Table 1 Regression of hedonistic "fun" spending between game show and tax rebate

Analysis of variance						
Source	*df*	Sum of squares	Mean square	*F* value	Pr > *F*	R^2
Model	7	2.03636	0.29091	3.82	0.0005	0.0652
Error	383	29.18922	0.07621			
Corrected total	390	31.22558				

Parameter estimates					
Variable	*df*	Parameter estimate	Standard error	*t*-value	Pr > *t*
Intercept	1	0.22191	0.06037	3.68	0.0003
Lnincome	1	0.00778	0.00583	1.33	0.1829
Materiality	1	0.00009549	0.00003720	2.57	0.0106
Spend1	1	0.05509	0.02934	1.88	0.0611
Level600	1	−0.10282	0.03625	−2.84	0.0048
Level1500	1	−0.09549	0.04242	−2.25	0.0249
Level3000	1	−0.13641	0.04201	−3.25	0.0013
Gameshow dummy	1	0.06933	0.02839	2.44	0.0151

one-tailed test for this variable. The results of this regression indicate that the first null hypothesis was rejected.

In the combined, three-source regression shown in Table 2, the model continues to be highly significant at $p \leq 0.01$. The amounts of the payment continue to be highly significant with negative coefficients, and the game show source dummy continues to be highly significant and results in higher spending on fun. When comparing payments from bonus and tax rebates (the omitted variable), the source of the payment was not marginally significant at $p \leq 0.10$, indicating that a bonus was more neutral than either tax rebate or game show sources.

Table 2 Regression of hedonistic "fun" spending among bonus, game show, and tax rebate

Analysis of variance						
Source	*df*	Sum of squares	Mean square	*F* value	Pr > F	R^2
Model	8	1.97917	0.24740	3.21	0.0014	0.0431
Error	570	43.97676	0.07715			
Corrected total	578	45.95592				

Parameter estimates					
Variable	*df*	Parameter estimate	Standard error	*t*-value	Pr > *t*
Intercept	1	0.27961	0.05228	5.35	<.0001
Lnincome	1	0.00184	0.00486	0.38	0.7046
Materiality	1	0.00004837	0.00003032	1.60	0.1111
Spend1	1	0.03874	0.02435	1.59	0.1121
level600	1	−0.08007	0.03120	−2.57	0.0105
level1500	1	−0.11248	0.03409	−3.30	0.0010
level3000	1	−0.11368	0.03441	−3.30	0.0010
Bonus dummy	1	0.03351	0.02911	1.15	0.2502
Gameshow dummy	1	0.06745	0.02840	2.38	0.0179

Table 3 Regression of percent invested in stocks, bonds, and savings comparing bonus, game show and tax rebate

Analysis of variance						
Source	*df*	Sum of squares	Mean square	*F* value	Pr > *F*	R^2
Model	8	4.23598	0.52950	7.51	<.0001	0.0953
Error	570	40.19711	0.07052			
Corrected total	578	44.43309				

Parameter estimates					
Variable	*df*	Parameter estimate	Standard error	*t*-value	Pr > *t*
Intercept	1	0.26953	0.04999	5.39	< .0001
Lnincome	1	−0.00043260	0.00465	−0.09	0.9259
Materiality	1	−0.00002566	0.00002898	−0.89	0.3764
Spend1	1	−0.15297	0.02328	−6.57	< .0001
level600	1	0.04130	0.02983	1.38	0.1667
level1500	1	0.08352	0.03259	2.56	0.0106
level3000	1	0.08799	0.03290	2.67	0.0077
Bonus dummy	1	−0.06468	0.02783	−2.32	0.0205
Gameshow dummy	1	−0.05112	0.02715	−1.88	0.0602

Regressions were also run directly comparing spending on fun from game show winnings with a bonus. No statistically significant differences were found. Similarly, regressions were run directly comparing spending from a tax rebate and a bonus. No statistically significant differences were found and tables for these results are omitted. This may mean that a bonus has characteristics of both a tax rebate and a game show winning. Like a tax rebate, it is derived from work, but like a game show winning, a bonus may have euphoric qualities one would celebrate. Though not statistically significant from zero, the coefficient for Bonus is positive and about half the size of the coefficient for the game show dummy. In the end, while some of a tax rebate would be spent on fun, the regression results indicate that the amount spent on fun from a bonus is not different from the amount spent on fun when the source is either a tax rebate or a game show winning.

Regressions were also run to see if spending on adult uses would differ by the source of the income. Various definitions of "Adult uses" to mean (1) spending on regular monthly expenses, or (2) the sum of regular monthly expenses and paying off credit cards, or (3) the sum of regular monthly expenses, paying off credit cards, and to buy a durable asset (such as a car, boat, washing machine, or furniture) were used. Regardless of the form of the measure used for "Adult spending," none of these regression models produced results significant enough to reject the second null hypothesis and are not presented as a table. However, when regressions were run to see if saving (Investing in stocks, bonds, savings accounts, etc.) increased significantly when the source was a tax rebate instead of a game show, the results were significant (see Table 3). Recipients of tax rebates would allocate more to this type of savings than they would if they received the same windfall amount from either bonuses or game show winnings, confirming that at least to some extent, people tend to use fun sources of income for hedonistic uses and adult sources of income for adult, utilitarian uses, consistent with O'Curry and Strahilevitz (2001). Like O'Curry and Strahi-

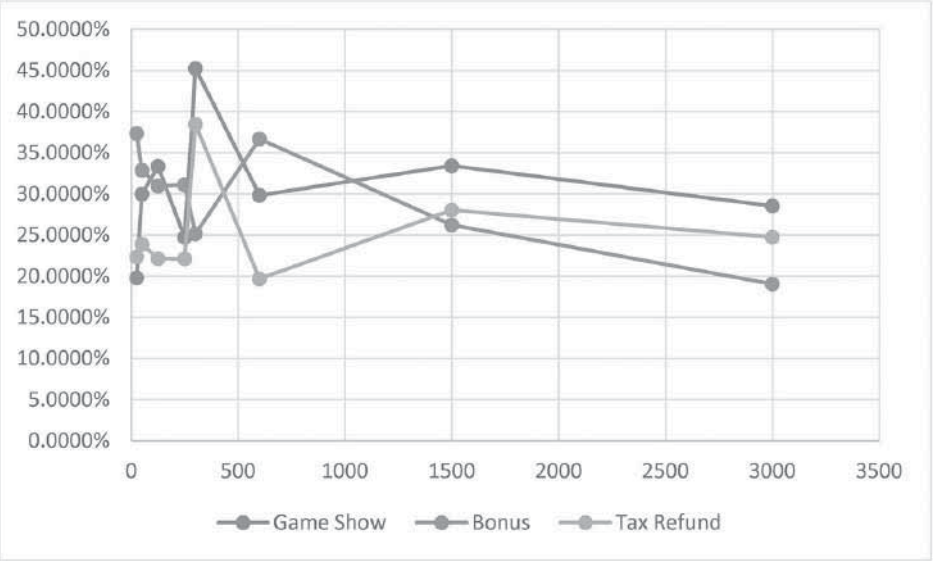

Fig. 1. Percent of windfall spent on fun.

levitz (2001), our amounts varied in value; however, unlike O'Curry and Strahilevitz (2001), we did not ask respondents to assume complete financial independence and allowed respondents to allocate money rather than choose among a selection of prizes that we believe results in a more comprehensive and divisible allocation.

Income in both absolute terms and relatively (as measured by Materiality) were extremely small and insignificant, indicating that the tendency to save and invest transcends income levels, but is strongly dependent on the respondent's savings habits, as indicated by the Spend1 variable.

We then examined the pattern of responses further: were the coefficients for various levels of hedonistic spending linear by source, or did they display a different pattern? When looking at the coefficients for each Level in the Game Show/Tax Rebate model and the significance of the Materiality variable in Model 1, the incremental amount spent appeared to be both significant and nonlinear. To confirm, the average percentage spent on fun was calculated for the monthly amounts of $25, $50, $125, and $250 and the yearly amounts of spending on fun. Next, the average percentage spent on fun for game show, bonus and tax rebate windfalls was graphed. The results, shown in Fig. 1, indicate that for small rebates, the percentage spent on rebates varied, and varied by source. For larger rebates of $1,500 and $3,000, spending on fun leveled out and began to converge at around 30%, regardless of source and then began to slowly fall.

6. Discussion

Overall, this model lends significant support to O'Curry and Strahilevitz (2001) findings of people placing affective tags on money and expands the body of knowledge that one affective tag is fun. Generally, these findings also support Thaler's (1999) mental accounting theory. However, the size of the effects also supports the neo-classical

economic notion that money is more fungible than not, and/or people are more rational than not with their money when it comes to fun sources and fun uses. The effect of affective tags may be bounded.

Regression results presented in Table 2 suggest that survey respondents did not spend the windfall differently if the source was a tax rebate or a work bonus. Additionally, the regressions comparing only windfalls from a bonus and a game show did not show a significant difference between the source. These results seem to indicate that there may be a hierarchy of fun sources. Game shows winnings are likely more fun than work, and work is not much different from taxes, but game shows are clearly more fun than taxes.

Regression results presented in Table 3 suggest that more of tax rebates, which are likely more predictable than bonuses and especially game show winnings, are invested, indicating that clients might be open to making investments during a predictable tax season, providing a greater demand for astute financial advisers like Certified Financial Planners and Certified Public Accountants. Combined with other academic literature on the anticipation of a receipt discussed in the Literature Review section of this article, early, increased communication, especially in the February to April "tax season" might be beneficial to addressing and servicing clients' financial needs. Advisors that are already tax professionals may be at an advantage in serving clients because they know the timing of the receipt, and the amount as well. They also would have the means, with client permission, to split a direct deposit of a tax refund among up to three different accounts with up to three different U.S. financial institutions. Splitting the refund can be accomplished electronically or through the IRS' Form 888, *Allocation of Refund (Including Savings Bond Purchases).*

We found the results of the research question enlightening. We know that respondents have separate mental accounts, or "buckets" (Thaler, 1999). We know those accounts can get full (Chambers, Spencer, and Mollick, 2009). This appears to be what is happening through roughly the $600 payment level. As income rises, so does lifestyle, *ceteris paribus*. However, not all uses of income necessarily rise proportionately. For example, if one's income doubled, that person would not necessarily incur twice as much in medical expenses. A similar increase in income might result in more than doubling a household's federal income tax bill because federal income tax rates are progressive.

Therefore, how do the allocations for fun change with an increase in income? Apparently, at small amounts of affectively tagged windfalls, enough money is spent to fill the current bucket for fun, and then the size of the bucket increases proportionately. The first part of this graph, then, suggests that people can have "enough fun" for their standard of living, confirming Chambers et al. (2009) that buckets get full. The second part of this graph describes the elasticity of fun as windfalls increase, which is an important contribution to literature, which we believe has not yet tested how the components of allocating income, and in particular fun, shift, if at all, with respondents' increase in income. This leads to several questions for further study.

How does the allocation of income, and in particular income from fun sources, shift, if at all, with respondents' increase in income? It appears that while affective tags can produce significant results, hedonistic spending from an affectively tagged source may be, if not

absolutely bounded, relatively bounded. People's rationality, more than not, seems to keep exuberance in check.

Additionally, if people use adult sources like tax rebates for adult uses, then financial professionals can incorporate these findings into their financial advising practices. Because tax filing is an at least annual event, and because most taxpayers receive refunds, tax season may be a robust time for financial professionals to encourage saving from a windfall. To enhance this practice, financial professionals might consider encouraging savings from the current refund and also the coming year's tax refund. From what we know about the power of commitment, those who commit to saving in the future save less than what they commit to saving, but more than those who did not make a commitment at all (Thaler and Sunstein, 2009). Then remind clients of their future commitment throughout the year. Mullainathan and Shafir (2013) showed that by sending a monthly reminder to save by either text or letter, for example, savings increased 6%. This method of future client commitment in the tax setting combined with reminders has not been tested though, so questions still remain, which leads to several questions for further study.

7. Limitations and opportunities for future research

This research showed that there might be a limit to how much of a windfall people are willing to spend on fun, even if the windfall is from a fun source. Future research could explore the elasticity or shape of the spending on fun. Other questions also lend themselves to further research: had windfalls increased further, would the percentage of income allocated to fun stay relatively flat? To what extent is hedonistic spending bounded when the source of the money is affectively tagged as either fun or adult? Had windfalls increased further, would the percentage of income allocated to fun stay relatively constant? Do other allocations of income to, for example, monthly expenses and investments also grow proportionately, or do some level off or even reverse? What are the other affective tags? How does tagging affect income allocations currently, and as the amount of windfall income rises?

One limitation of this article is that it focuses on the changes in behavioral intent when presented with modest windfalls from different sources, and does not examine the latent mental processes (or lack thereof) that are used to reach that intent. We do not disentangle the stimulus, or priming, from the mental accounting that produces the behavioral intent. Priming can be exhibited through what Thaler and Sunstein (2009) would call a "nudge," for example when setting up certain financial defaults to encourage individuals to save for their retirement. Mental accounting on the other hand is an internal construct, but it is connected to nudges that others may use in the environment to improve the choices of people who process information through their mental accounting systems. That is, priming is a cause that when processed with another's mental accounting system may yield a different behavior than that displayed by those who were not primed. In this particular study, we are less concerned with the nuance of disentangling the prime from the latent mental accounting, and more concerned with the type of stimulus and differences in intent.

In this instrument, we asked if respondents smoked and if they wear seatbelts as a proxy for risk aversion. We also asked them for the extent of their business experience. We had seen these questions in previous studies, sometimes in multiple studies. In hindsight, these questions were too general to yield meaningful results. For example, an item on "personal financial expertise" would likely have yielded more information than the more general "business experience."

Similarly, we analyzed the differences in uses among hypothetical receipts from the following sources: game show earnings, bonuses, and tax rebates. Underlying this analysis is that winning money on a game show is more fun than doing one's taxes. That might not be universally true, and that assumption biases against results in this this study. For future research, it might be useful to test the extent that respondents find game show winnings to be more fun than receiving a tax rebate. For example, some people may be so thrilled that they are (hypothetically) getting *any* money that the source is irrelevant, and a separate analysis of those respondents may result in further interesting, significant findings. Another way to examine the effects of fun earnings relative to adult earnings would be to ask respondents what categories of activities they saw as fun rather than adult. These responses could be incorporated into fun or adult scenarios and, among subjects design, could test for different uses of those funds. Such a design may be a better test of these concepts and produce stronger results.

8. Conclusion

Our findings are consistent with the idea that fun sources of income are more likely to be spent on a fun expenditure. Money won on a game show would be spent more on fun than money received from a tax rebate. This provides support for rejecting the first null hypothesis that there will be no difference in spending on fun by source of windfall. However, there may be a hierarchy of fun sources: game shows winnings are likely more fun than work, and work is not much different from taxes, but results show that game shows winnings are clearly more fun than tax rebates.

While some of the regression results were unable to reject null Hypothesis 2 as it pertains to adult spending, regression results for additional investing provide support for rejecting null Hypothesis 2, that there is no difference in allocations for regular expenses, credit card payments, durable assets, or investing in stocks, bonds and savings account (adult uses of funds) by source of windfall. Though various combinations of "adulting" (spending on adult causes) were used, we were unable to show that more adult sources of income are spent on adult *spending* like paying down a credit card or paying regular household expenses. However, there is significant evidence that there is a difference in investing based on the source of the windfall, validating a specific kind of adulting.

Finally, the percentage of the windfall spent on fun levels out. People will apparently spend significantly more on fun when a fun windfall is received, but that spending on fun is not limitless. Additionally, as the amount of the total payment increased, the percentage spent on fun appears to level, indicating that at least within this range of payments, there may be such a thing as "enough (spending on) fun."

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Appendix Sample Survey Instrument

"What would you do if . . .?" (Fill in the amounts): By participating in a game show, you won a prize that would result in *you* receiving $600.00 for 2012.

If received, how much of these winnings would you plan to:

1. Invest (in stocks, bonds, savings account, and so forth)?	$
2. Use to pay off credit card debt?	$
3. Use to pay off notes (such as mortgage, car note, and so forth)?	$
4. Use up about evenly every month for expenses? _____/month. × 12 months. =	$
5. Use to buy a durable asset (such as car, boat, washing machine, furniture)?	$
6. Use to save for an infrequent expense (such as a vacation, bigger holiday gifts, or something you've been wanting)?	$
7. Spend right away on something fun?	$
Amount must total $600.00————-→	

If instead, by participating in a game show, you won a prize that would result in *you* receiving $50.00/month for the next 12 months.

If received, how much of this monthly increase would you plan to:

8. Invest (in stocks, bonds, savings account, and so forth)?	$
9. Use to pay off credit card debt?	$
10. Use to pay off notes (such as mortgage, car note, and so forth)?	$
11. Use up for regular monthly expenses?	$
12. Use to buy a durable asset (such as car, boat, washing machine, furniture)?	$
13. Use to save for an infrequent yearly expense (such as a vacation, bigger holiday gifts, and/or something you've been wanting)?	$
14. Spend right away on something fun?	$
Amount must total $50.00————-→	

Please list your: Zip Code_____ Years of work experience ____
Highest education level: High School ___ Associate Degree ___ Undergraduate ___ Graduate or above ___
Occupation: _____ Gender: Female ___ Male___ Age ____
Race/ethnicity _____ # of College-level Accounting classes completed College major (if applicable) _____
Industry where you work _____
*Approx. yearly **Household** income (from all wage and salary earners and other sources of income) $_____*
Credit Card Debt: $_____ Other Debt: $_____
Do you smoke? Yes ___ No ___ Do you normally wear your seatbelt? Yes —___ No ___
When you normally get "extra money," do you spend it or save it? Spend ___ Save ___
I rate my level of business experience as:
High ___ Fairly High ___ Moderate ___ Fairly Low ___ Low___ None ___

Complete other side, please.
THANK YOU FOR YOUR PARTICIPATION!!!

"What would you do if . . .?" (Fill in the amounts): You got a bonus at work that would result in *you* receiving $600.00 which for 2012 will automatically be mailed to you as a check from your employer.

If enacted, how much of this monthly increase would you plan to:

15. Invest (in stocks, bonds, savings account, and so forth)? $
16. Use to pay off credit card debt? $
17. Use to pay off notes (such as mortgage, car note, and so forth)? $
18. Use up about evenly every month for expenses? _____/month. × 12 months. = $
19. Use to buy a durable asset (such as car, boat, washing machine, furniture)? $
20. Use to save for an infrequent expense (such as a vacation, bigger holiday gifts, or something you've been wanting)? $
21. Spend right away on something fun? $

Amount must total $600.00————————→

Another work bonus would result in *you* receiving $50.00/month after taxes; that is, your paychecks would go up $50.00/month.

If received, how much of this monthly increase would you plan to:

22. Invest (in stocks, bonds, savings account, and so forth)? $
23. Use to pay off credit card debt? $
24. Use to pay off notes (such as mortgage, car note, and so forth)? $
25. Use up for regular monthly expenses? $
26. Use to buy a durable asset (such as car, boat, washing machine, furniture)? $
27. Use to save for an infrequent yearly expense (such as a vacation, bigger holiday gifts, and/or something you've been wanting)? $
28. Spend right away on something fun? $

Amount must total $50.00————————→

THANK YOU FOR YOUR PARTICIPATION!!!

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